

NOTES ON COLORATION AND HABITS OF THE CHESTNUT-COLLARED LONGSPUR

WITH FOUR ILLUSTRATIONS

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April 14, 1915, a new bird song announced the arrival of an interesting stranger at my premises. My unknown visitor stood before me on the top of a fence post, singing an attractive little song in a voice which had, I thought, a suggestion of bluebird quality. He was a jaunty fellow, with a collar of bright chestnut behind his black cap. There were yellow ornaments on his face and neck, his throat was bright yellow, and an apron of unbroken lustrous black extended over his breast and abdomen. Having thus announced himself, he flew down and was lost in the meadow grass of a prairie slough. It was I who was, in truth, the newcomer; my caller was an old-time summer resident of the neighborhood. His name, as I learned soon afterward, was *Calcarius ornatus*.

The adult male in this ornate nuptial plumage is easily recognized in the field. The features mentioned, together with the pure white lining of his wings when he spreads them, make him a striking figure. The typical female, a plain sparrow-like bird, is not so easy to identify, but the tail pattern is similar to that of the male, and if this feature is definitely observed when the tail is spread in flight, it will serve to distinguish the females of the Chestnut-collared Longspur from females of the McCown Longspur. In both species the tail is largely white, but the white is cleft by a dark median stripe which widens at the end of the tail into a terminal band. In the chestnut-collared species, when in flight, the widening of the dark stripe proceeds with gradually curved outlines, forming a fan-shaped area at the end of the tail; thus the white areas have curved inner boundaries. In McCown Longspurs the dark terminal band does not appear fan-shaped; it is much more like the cross stroke of a letter T, making the white area at each side nearly rectangular. When the female Chestnut-collared Longspur is seen at close range, as she sits in her nest, a broad light streak is noticeable extending through the middle of her crown.

A male specimen in hand, of date May 2, showed the iris to be very dark brown; bill blackish above, pale blue-gray beneath, yellow-green at base except the part above nostrils; tarsus blackish-brown; toes black.

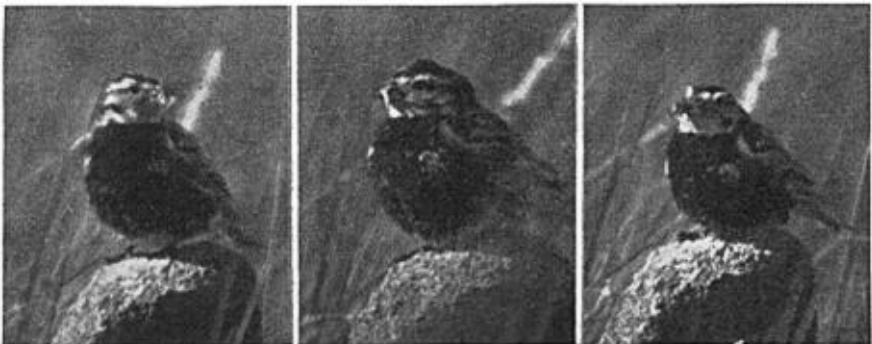


Fig. 30. Chestnut-collared Longspur bringing food, on three different occasions, for the young in nest number 14; photographed July 18, 1916.

These notes were made in the vicinity of Dutton, in Teton County, Montana. The Chestnut-collared Longspur is said to be a common summer resident of the prairie region of Montana as far west as the bases of the easternmost ranges of the Rocky Mountains (Saunders, Pac. Coast Avif. no. 14, 1921, p. 114), but the species was only moderately common in my immediate vicinity and seemed to be locally distributed, even in the limited area of these observations. Although associated in a general way with McCown Longspurs and Horned Larks, it preferred to make its home in the borders of wet hollows or marshy spots of the prairie.

The spring migrations took place in mid-April, the dates of first arrival at my station being April 14, 13, 20, and 13, in four successive years. Within two or three days after the first arrival, the species was present in its usual numbers.

In the fall the longspurs are shy when approached. Their habit of wandering about at that season may cause them to be absent from a given locality though they have not yet left for the south. One year they were apparently absent when I looked for them on August 2, 4 and 8, but young were seen on the 15th. My notes for August 29 of the second year mention the presence of several birds believed to be of this species.

During the nesting season the males often execute a little song flight, which, though not especially notable in itself, is very pleasing because of the melodious song which accompanies it.

On May 8, as I walked along the margin of a meadow, a bird flushed from the grass ahead of me, and a few moments later I was looking into my first nest, which contained four rather handsomely marked eggs. It was well concealed in a tuft of grass which stood up all around it. In the course of four years, twenty-two nests were found. They were described, and nesting dates and other items directly related to nidification were given, in the *Condor* (vol. 37, 1935, pp. 68-72).

In almost every instance, the nest was found by flushing the female bird. In one place, the ground hollow, prepared to receive the nest, was found accidentally before the nest was built (nest 5). It was at a point that I passed almost daily.

After a nest has been discovered, the birds are watchful but not demonstrative. While a nest is being examined, the parent birds can often be seen somewhere in the neighborhood. In several instances I noticed the male in the vicinity when the female was first flushed from the nest or while she sat in the nest upon my subsequent return to it. One male flew around me while the female was in the nest. Another circled over the nest to warn his mate of my approach (second visit) and she left the nest before I could get close to it. At another nest the female flew around me a time or two after I had flushed her. One female returned to her nest while I sat near it (nest 19).

The eggs are deposited daily, probably in the early part of the morning. The



Fig. 31. Chestnut-collared Longspur about to leave rock near nest number 14, after feeding the nestlings; photographed July 19, 1916.

complement is usually four; occasionally it is five. It seems reasonably certain that the duties of incubation fall wholly upon the female; the mother bird was definitely observed incubating in sixteen of the nests found (not counting nos. 9 and 14).

The young are hatched with an upper covering of natal down which appears long and fluffy as soon as dry. It is almost white, tinged with brownish gray. The mouth lining of nestlings is plain pink. By the time they are seven days old they are feathered; a brood of four completely fills the nest.

Presumably the Chestnut-collared Longspurs are subject to about the same mishaps as the other terrestrial birds of the region, though their nests are so well hidden that they are not apt to be found by sight alone. Only one nest of this species was under observation at the time of a prolonged storm; in that nest the four young perished. The eggs mysteriously disappeared from one nest before hatching time.

In the article cited, several anomalous conditions were recorded. Among them was an abnormal mortality among the nestlings. In nest 11, four eggs hatched, but only two nestlings were alive the day before leaving time (sharing the nest with the body of one that had died). The next day there was only one survivor; and one carcass was found a few inches away. At nest 14 the four eggs hatched, but a nestling died when eight or nine days old. I did not find parallel cases of death without violence among nestlings of the other ground-nesting birds.



Fig. 32. Chestnut-collared Longspur bringing food for the young in nest number 14; photographed July 19, 1916.

of dead grass in the bottom of the earth hollow, the bare earth forming the only walls. I did not witness the feeding of the young; they were killed by a rainstorm which occurred from June 21 to 23.

About two weeks later (July 7), just back of the cabin yard, a new nest was

On July 19 I witnessed the removal of the dead fledgling from nest no. 14. It was a surprising feat of strength, for the fledgling was very heavy, being eight or nine days old. Upon rapidly fluttering wings the parent rose with his burden straight upward from the nest; then it flew horizontally, and, while flying low, dropped the carcass at a spot about fifty feet away.

At the time and place of these observations there was a peculiar phase of female plumage, approaching the coloration of the males. This tendency was observed at four nests. Upon finding nest no. 9 (June 10, 1916), near the corner of the cabin yard, I wrote in my notes that a male was incubating the four eggs; for it was plain that the bird on the nest had the plumage of a male. Three days later I added a comment that the male in the nest was rather dull, and that a bright-plumaged male on a fence post not far from the nest seemed agitated at my presence. In this nest there was no fabricated structure; the eggs rested on a mere mat

found containing four eggs (nest 14). Later that day I saw the parent bird incubating; here again, to all appearances, was a male in the nest. But the incubating bird was no doubt a female despite her feathers. Her partner was often observed. In comparing them four days after the nest was found, I could see that the plumage of this bird was not nearly so bright as that of her mate, though she had all the male markings. This was probably the pair from unsuccessful nest no. 9. I placed a rock near the nest to serve as a stopping place and lookout for the birds. Several photographs were made of the parents standing on this rock. The three photographs, A, B and C, of figure 30, are obviously all of the same bird (note the light patches at sides of breast), while figure 32 is a photograph of the other bird. Both of the birds are shown carrying food for the young.

The next nest found (nest 15, July 19) contained eggs which were being incubated by a female of an intermediate type. She had partly taken on the male plumage, with blackish breast and abdomen.

Again the following year (nest 19, June 23), I found a female of intermediate plumage, with blackish breast and belly similar to the underparts of the male but without the chestnut collar or other bright markings.

Inquiry concerning such plumages was subsequently made of two well-known museums. In one collection, which contained a large series of specimens of this species, all the females were said to differ from the males in the way described by Ridgway. In the other, three females (out of about thirty) were said to have assumed blackish feathers on breast and abdomen, and some chestnut ones on the back of the neck, but all these feathers were broadly tipped with pale buff, largely concealing the black and chestnut. There were no specimens that really resembled a male in full plumage.

One other anomaly, mentioned in the earlier article, was the occurrence in a given nest of two groups of eggs in unequal stages of incubation. In nest 10, which contained five eggs, three were nearly fresh while two were far advanced. In nest 19, which also contained five eggs, incubation had been well begun in four, while the fifth egg, which was lightly marked, was practically fresh.

Excelsior, Minnesota, December 12, 1936.



Fig. 33. Eggs of Chestnut-collared Longspur *in situ* in nest number 21; photographed June 6, 1918.