

**Notes on some Species New to the Colorado List of Birds.**—Among the results accomplished through a biological survey of Colorado by the Colorado Museum of Natural History, the following notes are of general interest and it seems advisable to record them at this time.

**Tympanuchus pallidicinctus.** LESSER PRAIRIE CHICKEN.—As the presence of this bird within the limits of Colorado was considered probable, a special trip was made into the extreme southeast corner of the state (Baca County) during May, 1914. The first specimen was secured May 24 (C. M. N. H. No. 4146, adult male). Another trip into the same territory from Sept. 21 to 23, of the same year afforded additional specimens of both sexes.

It was assumed that this region marked the northernmost limits of their range but in the fall of 1916, they were found to be fairly common in the sandhill country immediately to the south of the Arkansas River in the vicinity of Holly, Prowers County, where specimens were obtained. Systematic search, however, failed to disclose any evidence of their presence on the north side of the river, where the country is, in fact, quite different and unsuited to their needs. The Arkansas River, therefore, may be considered as the northern boundary of the range of this species.

**Dryobates p. medianus.** DOWNY WOODPECKER.—This variety is given in the Check-List as extending to "eastern Nebraska and Kansas" and it would seem that it is still further extending its range to the westward as a pair of typical specimens were collected on Dry Willow Creek, Yuma County, on Aug. 19, 1915, (C. M. N. H. Nos. 4760 and 4787) forming the first and second records for Colorado.

**Loxia leucoptera.** WHITE-WINGED CROSSBILL. These birds have been reported on previous occasions from Colorado but investigation has failed to show wherein any of these occurrences have been based on specimens actually collected and preserved. An adult male (C. M. N. H. No. 6585) collected at Silver Lake, Boulder County, on May 17, 1917, is therefore, apparently the first record specimen.

**Spizella p. arenacea.** WESTERN FIELD SPARROW. The first record specimen of this subspecies for Colorado is an example (C. M. N. H. No. 6142) taken in the vicinity of Holly, Prowers County, Sept. 21, 1916. It is an immature female and when secured was associated with a mixed flock of *S. pallida* and *S. breweri*.

**Passerella i. iliaca.** FOX SPARROW. The occurrence of this bird in the Clear Creek Valley within a few miles of the foothills near Golden, Jefferson County, was most unexpected. The specimen, an adult male (C. M. N. H. No. 6016) was secured Nov. 1, 1916.

**Helinaia swainsoni.** SWAINSON'S WARBLER. The presence of Swainson's Warbler in Colorado is decidedly unique and extends the possible range of the species several hundred miles to the westward. The specimen forming the record, is an adult female (C. M. N. H. No. 2806) and was secured near Holly, Prowers County, on May 12, 1913, from a dense growth of willows, frequented at that time, by numbers of Bell's Vireos.

**Vermivora luciae.** LUCY'S WARBLER. The fact that the first record for this bird in Colorado was also found breeding, makes it seem possible that the species has been overlooked by other collectors. Two specimens (C. M. N. H. Nos. 3384 and 3385) together with their nest and eggs, were collected at 'Four-corners' in Montezuma County on May 3, 1913.

**Hylocichla mustelina.** WOOD THRUSH. The first record specimen of the Wood Thrush was taken near Holly, Prowers County, on May 12, 1913 (C. M. N. H. No. 2629). It seems not unlikely, however, that the bird is extending its range westward. Confirmatory evidence for this belief is afforded by two additional specimens collected on Dry Willow Creek, Yuma County, on June 24, 1915.—F. C. LINCOLN, *Denver, Colo.*

**Subsequent Nestings.**—I was much interested in reading of Mr. J. K. Jensen's experience (Auk, January, 1918, pp. 83-84) with the White-rumped Shrike (*Lanius ludovicianus excubitorides*) at Wahpeton, North Dakota, in 1917, as they are very similar to mine at Hatley, Quebec, in the same year with the Migrant Shrike (*Lanius ludovicianus migrans*) an account of which it had been proposed to add as a postscript to my "A Study of Subsequent Nestings after the Loss of the First," Auk, Vol. XXXIV, 1917, pp. 381-393, but which had to be omitted at the last moment owing to unforeseen circumstances. My pair of birds laid four sets of eggs in succession, the first set being taken on May 30, and the last on July 4, thus again giving practically eleven days interval between each set. The first two consisted of six eggs each, the third of five, and the fourth of four, the first nest being in an apple tree twelve feet up, the second in a fir eighteen feet up, and seventy-one yards from the first, the third in the same apple tree as the first only seventeen feet up, whilst the fourth and last was again in an apple tree twelve feet up, and eighty-three yards from the fir tree, the site of the second, and one hundred and fifty-four yards from the apple tree, the site of the first nest. Now the most interesting fact to me was the pigment in these eggs, for whereas with each successive set the size, beauty and construction of the nests fell off, as well as the number of the eggs, the pigment or coloring increased if anything, the last set being equally or more highly pigmented than any of the others. At a Meeting of the Nuttall Ornithological Club held at Cambridge on November 19, 1917, at which I was present, I mentioned the above case. It was suggested by one of the members present (I believe it was Mr. Bangs) that the apparent higher coloring of this last set might be due to an increased thinness of the inner membrane or lining of the shell, or to the thinness of the shell itself, or both. The latter (thickness of shell) I have examined with a microscope through the blow hole as well as I was able, but can detect no apparent difference, but this is no easy matter to decide off hand, and will require much more careful consideration. It seems to me that we have here an interesting field for further investigation, as there really does not appear to be much known or at all events published on the causes and effects governing the pigment of eggs. The English