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## NOTES ON THE HORNED LARKS OF THE CENTRAL OHIO REGION

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The status of the various races of the Horned Lark (*Otocoris alpestris*) that occur in Ohio has received little attention from Ohio ornithologists. The following notes are based upon observations and collections made during the course of more than 1000 field trips in the central part of the state over a twelve-year period from 1922 to 1933, chiefly near Columbus and at Buckeye Lake, but also at numerous other localities in the counties of Union, Delaware, Franklin, Licking, Fairfield, and Pickaway, all in the till plains province of the state. As a matter of convenience we have referred to this area as "Central Ohio", but such generalizations as occur in these notes are not intended to apply beyond the limits outlined above. Particular attention was given to the winter population in an effort to determine approximately the relative abundance of the three races, *Otocoris alpestris alpestris*, *O. a. praticola*, and *O. a. hoyti*.

Under favorable conditions of light the great majority of individuals may be accurately identified in the field. Many such identifications have been checked by collecting. During the winter the gregarious habits of the Horned Lark make possible the close comparison of individuals, and the slight differences in size and color that characterize the different races become relatively conspicuous.

The Prairie Horned Lark (*Otocoris alpestris praticola*) is a moderately common although somewhat local breeding bird in central

Ohio, nesting most frequently in well-drained pasture fields. Males defend their territories as early as the first week of February, and nearly all of the breeding individuals are present by the last of that month. This is also true in northwestern Ohio where the bird nests much more abundantly than in the central part of the state.

The only nest of which we have record in central Ohio was found by Dr. Robert B. Gordon on March 24, 1930, near the O'Shaughnessy Reservoir in Delaware County, and contained three eggs in an advanced stage of incubation. Several nesting records from northern and northwestern Ohio indicate that the first complement of eggs is normally laid in late March. Adult larks feeding young birds out of the nest have been seen at Buckeye Lake as early as April 20 and as late as June 2.

During the summer and early fall months single birds and small groups including as many as ten or twelve individuals may be encountered along dusty roads and in closely cropped pastures or stubble fields. At these seasons the larks are inconspicuous. During late September and October flocks of as many as thirty birds are occasionally seen. By December a marked decrease has occurred, and during the latter half of that month and the first half of January Prairie Horned Larks are decidedly uncommon, and in some years perhaps entirely absent.

Sometime during late January or February, depending upon weather conditions, there is a decided influx of birds of this race; small, loosely associated groups appear at the nesting grounds and the males may be found singing from frozen clods of earth, or, especially when the ground is covered with snow, from fenceposts. Even where flocks of the Northern Horned Lark (*O. a. alpestris*) are present in the same field, there is little or no association of the two races, and behavior at this season serves to differentiate them quite as satisfactorily as do the morphological characters.

We have examined eight central Ohio specimens of the Prairie Horned Lark in the Ohio State Museum collection which beyond reasonable doubt represent breeding individuals. On the whole they agree closely in color and size with the description of *praticola* as given by Oberholser (Proc. U. S. Nat. Mus., V. 24, 1902, p. 825). In none of these birds is there any trace of yellow in the posterior portion of the superciliary line.<sup>1</sup> In a series of sixteen males collected

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<sup>1</sup>We have, however, seen one breeding specimen (O. S. M. 6979) from Lucas County, Ohio, in which the superciliary line is uniformly pale yellow, although in other details of coloration and in size the specimen is typical of *praticola*.

between November and May, the wing length ranges from 102.6 to 108.1 mm., while two females have wing lengths of 97.1 and 99.8.

The Northern Horned Lark (*O. a. alpestris*) is unquestionably the dominant race during the winter months. Our earliest fall record is that of a flock of approximately twenty-five birds seen on a sandbar at Buckeye Lake on October 11, 1928. Flocks of from twenty to one hundred individuals are usually present by early November. The peak of abundance occurs during December, January, and February when flocks of 200 or more are frequently encountered. The largest flock noted by us was estimated to contain 600 individuals and was seen in the cornfields of the Scioto River bottom-lands a few miles south of Columbus on February 18, 1928. The largest number recorded in a single day was that of an estimated 2000 individuals, the combined number of several flocks which were encountered along a three mile stretch of road immediately south of Buckeye Lake on February 14, 1929. During the month of March there is a rapid decline in numbers and our latest date is March 29, 1930, when a flock of twelve birds was seen near Buckeye Lake.

The size of the winter population varies greatly from year to year and is apparently correlated with the amount of snow on the ground and the availability of food. Low temperature seems not to be a factor. Many of the flocks inhabit those areas in which *praticola* nests in the spring, and where weed seeds and cultivated grains are accessible. Fields in which livestock is fed and where waste grain is consequently abundant, and fields in which manure has been scattered seem to be particularly attractive. In such situations the birds are usually able to find food even during periods of heavy snowfall.

The Northern Horned Lark is characteristically gregarious during the entire period that it occurs in this region. On warm spring days a short and presumably incomplete song is frequently heard, usually delivered while the bird is in flight. At no time, however, does the singer fly far from the flock. Occasionally an individual sings from the ground while associated with the flock. We have never seen a Northern Horned Lark sing from an elevated perch as does our nesting race, *praticola*. In spite of the gregarious habits of the northern bird, spirited and prolonged combats often occur between individuals of the flock. These have been most frequently noted on warm days late in the winter and may be indications of the approaching breeding season.

The Ohio State Museum collection includes thirteen central Ohio specimens of *O. a. alpestris*. Among these are individuals with throat

and superciliary line fully as rich a shade of yellow as any Massachusetts or Long Island specimen that we have examined. In others the yellow color of these parts is distinctly pale but these latter birds agree with the former in size and in the rich dark tones of the upperparts and seem to be unquestionably referable to the race *alpestris*. The wing length in males of this series ranges from 109.7 to 114.4 mm. and in females from 100.6 to 105.2.

Three additional specimens are decidedly atypical although nearer to *alpestris* than to any other of the subspecies. One of these (O. S. M. 3072), a female with a wing length of 100.5 mm., has an extremely pale yellow throat and superciliary line, the dorsal color, however, is darker than in *praticola* and there is a faint yellowish suffusion in the brownish crown feathers. Two other specimens, males (O. S. M. 3065, 3068), exhibit similar departures from the normal *alpestris* coloration, but are so large (wing length 110 mm. in each) that we conclude they represent intergrades between *alpestris* and *hoyti*. These two birds were taken from flocks largely comprised of typical individuals of *alpestris*. Another specimen (O. S. M. 3061) seems so clearly intermediate between *alpestris* and *hoyti* that we hesitate to refer it definitely to either race. This bird was collected at Buckeye Lake on December 29, 1928. From the same flock were taken: a female (O. S. M. 3073) which seems typical of *alpestris*, the atypical male of *alpestris* (3068) mentioned above and a pair of larks (3077, 3088) which seem clearly referable to *hoyti*. These specimens were selected, after careful study, from a large flock in which by far the majority of individuals showed the yellow superciliary line of *alpestris*.

Hoyt's Horned Lark (*Otocoris alpestris hoyti*) is by far the rarest of the three races that occur in this region. Most of our records are of one or two individuals associated with large flocks of *O. a. alpestris*. These birds, with the white superciliary line and pale dorsal coloration of *praticola*, but fully as large as the *alpestris* with which they associate, are not difficult to identify in the field. The greatest number recorded, on December 29, 1928, at Buckeye Lake, was five in a flock estimated to contain 100 individuals of *alpestris*. Many large winter flocks of larks which we have carefully examined contained no *hoyti* nor have we found any flocks composed entirely of *hoyti*. The available central Ohio records for this race range from November 26 (Oberholser, WILSON BULLETIN, Vol. 31, 1919, p. 64) to March 17. Upon a few occasions we have heard a short song from individuals of this race, and twice our attention was first attracted to the birds by

a peculiar quality of the voice which seemed distinctly different from that of *alpestris*.

Only six specimens which are clearly referable to *hoyti* have been collected.<sup>2</sup> The wing length of the five males ranges from 110.2 to 113.4 mm., while that of the one female is 106.2. The superciliary line in all six specimens is white and the colors of the head and back are lighter than in *alpestris* and lack the brownish tones characteristic of that race. There is much variation in the intensity and extent of the yellow throat patch.

The status of the three races of Horned Larks in central Ohio may be briefly summarized as follows:

*O. a. alpestris* is overwhelmingly the commonest race in winter, occurring characteristically in large flocks which may also include a small proportion of integrades between *alpestris* and other races, and a few individuals of *hoyti*. The nesting race, *O. a. praticola*, is rare or even absent during a short period from about December 15 to January 20, and is not known to occur in large compact flocks at any time.

As regards the ratio of *alpestris* and *praticola* our observations in central Ohio are quite at variance with those of Dr. Lynds Jones, made in the Cedar Point region of northern Ohio (WILSON BULLETIN, 1910, pp. 29-30). According to Jones, "winter flocks of these larks are almost always mixed in the proportion of 2 of *alpestris* to 7 of *praticola*." From our own limited observations in northwestern Ohio we gather that *praticola* is a much commoner midwinter bird there than in the central area, and the extensive field work carried on by Messrs. Louis W. and Bernard R. Campbell in the Toledo region also indicates that this is true.

It is possible that the smaller number of *praticola* in central Ohio in winter is correlated with the smaller breeding population, although it might be expected *a priori* that winter flocks would include *praticola* from northern Ohio and Ontario as well as *alpestris* from regions farther north. It seems quite apparent that the ratio of the two races in winter populations varies greatly in different localities in Ohio and that some factors other than climate must be taken into consideration to explain these differences. Due to local, seasonal, and yearly variations it is impracticable to attempt an exact expression of the ratio of the various races in our winter Horned Lark population.

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<sup>2</sup>The identifications of two or these have been confirmed by Dr. H. C. Oberholser.