

REMARKS ON THE MID-MAY CENSUS.

W. DEWITT MILLER AND CHARLES H. ROGERS.

To us it seems that the value of this census, as of others, such as "Bird-Lore's" Christmas one, lies more in the accuracy of the count of individual birds, as a basis for comparison, than in the total number of species noted. We strive for as many species as possible consistent with as accurate as practicable an enumeration of individuals. Holding such an opinion, we venture to claim that our method, presently to be detailed, is preferable to the methods of certain other of The Wilson Bulletin's mid-May census takers.

The frequent use of "common" in the Ohio lists means very little and is practically worthless for comparison, especially when it is used to the exclusion of all other terms, such as "abundant," thus putting the Warbling Vireo and the Robin, for instance, into the same class. Again, figures such as those in Mr. Kohler's list last year, apparently estimates made after returning from the field, we believe to be far from accurate. For example,—on our 1916 "Big Day," Song Sparrows seemed so ubiquitous that, had we not counted as we did, we might easily have estimated them later at 250 (Mr. Kohler's number for his census), but our figures show only 66. We are, therefore, not convinced that Mr. Kohler and Mr. Taubenhaus, in somewhat less than ten hours, noted nearly four times as many Song Sparrows as did we in fifteen or sixteen hours of daylight, even supposing that species to be more abundant in their region than in ours.

Our big day is only a glorification of the kind of day each of us spends on an average of over once a week all the year around. On nearly every such occasion the individuals are entered in the field notebook as often as seems necessary to avoid forgetting any; the species naturally appear on the pages in the order of observation. This, however, is much too slow for the Big Day,—the notebook would have to be opened and perhaps several pages turned in looking for any species.

On this occasion each man has a piece of heavy cardboard about four by ten inches in size, and on each side of this is closely fastened one sheet of finely-ruled paper very slightly smaller. A list containing all species we are at all likely to meet (about one hundred), with a few blank spaces where they are most likely to be needed, is written in ink in A. O. U. "Check-List" order on this paper the previous day. In the field a pencil is used, and this may be tied to the cardboard. Individuals are entered at intervals as brief as seems necessary; often the board is hardly in the pocket before it must come out again. Of course all this does delay the progress of the hunt to a certain extent, and occasionally a "good" bird may slip by unobserved while we write, but we believe that the comparative accuracy of our results justifies the loss of time and, possibly, species, and we know of no scheme that would take less time, unless we should take along a scribe to whom we could dictate!

We are usually together, but at times become separated (though never beyond hail), so that our totals sometimes differ. In that case the larger figure is used for publication. Thus, if one sees ten Phœbes, the other twelve, each including two not seen by the other, the number printed is twelve, not fourteen. The latter, however, would be better, if always practicable.

From many years' familiarity with our region, we have carefully chosen a route to include the haunts of as many species as possible. We find that we cannot cover more than fourteen miles before dark; this leaves six miles of return journey with the possibility of adding the Whip-poor-will and other species that make themselves heard by night. From the start till the end of the twenty miles we are afoot.

We are particularly interested in the avifauna of northern New Jersey, and we take the liberty of questioning certain of Mr. Kohler's identifications. In his last May census, "Purple Grackle, 150; Bronzed Grackle, 25;" indicates what we fear to be a misplaced confidence in his ability to distinguish between these two forms in the field. To do this requires such

exceptionally favorable circumstances that it is very rarely possible for even the best-trained field ornithologist to identify positively, by the use of glasses, a Bronzed Grackle in the range of the Purple. Also we have grave doubts as to the "Wilson's Warblers" Mr. Kohler records as breeding in New Jersey ("The Oölogist," vol. xxxiii., No. 6, p. 104), as Wilson's Warbler has not been found in New York in summer and is rare in the nesting season even in northern New England.

THE CORRELATION BETWEEN THE MIGRATORY FLIGHTS OF BIRDS AND CERTAIN ACCOMPANYING METEOROLOGICAL CONDITIONS.¹

FRANK SMITH.

The purpose of this paper is to call attention to the correlation between the principal migration activities of birds in Spring in Central Illinois and certain types of weather conditions. The existence of such correlation is shown by an examination of the migration records which have been made during the past fourteen years (1903-1916) at the University of Illinois.

The region in the vicinity of Urbana, where the greater part of these records have been made, is an elevated prairie, without marshes or swamps; the streams are mere ditches; and the natural timber is but a thin woodland tract skirting one of these ditches and a nearby artificial pond. The most complete data are from a cemetery adjacent to the campus; an artificial forest of about 18 acres and over 40 years old which is on the campus; and a few rapidly disappearing hedges and brushy patches in the outskirts of the city. More extensive streams and woodlands twelve to twenty miles distant, have been visited very frequently but not daily and hence the data from them have not been used in this discussion.

¹ Contribution from the Zoölogical Laboratory, University of Illinois, No. 87.