

had shot June 25, 1880, in Grant County in the west-central part of Minnesota. Mr. Eager regarded the bird as not uncommon in that locality, but Mr. Benner and myself failed to find it during two weeks collecting in the same County in 1879. Dr. Wm. L. Abbott includes this species without comment in a list of birds ('Forest and Stream,' Jan. 15, 1880) taken in July, 1879, at Pembina, N. D., which is in the Red River Valley close to the extreme northwestern corner of Minnesota.

**Spizella pusilla.** FIELD SPARROW.—Though long familiar with the characteristic song and habits of this bird through an acquaintance formed in the East, I have, in an experience of fifteen years in many parts of the State lying north of the latitude of Minneapolis, been enabled to detect it with certainty in only one locality—northern Ramsey County. Here I obtained the first specimen June 24, 1884. On visiting in June, 1889, the same locality, which is an extensive tract of uncultivated sandy country covered with a scattered growth of 'black' and bur oaks of small size, I found the birds fairly common, and shot six of the many heard and seen. Of these seven specimens, one, the bird taken June 24, 1884, is a large light-colored male which Dr. C. Hart Merriam, who kindly examined the series for me, states is nearer *arenacea* than *pusilla*. While the other six specimens are somewhat lighter in general coloration than are typical eastern *pusilla*, and in three or four instances show conspicuous gray feathers on the crown, still on the whole they are much nearer the eastern form. Dr. Merriam remarks upon the singular fact of the occurrence of these two forms in the same locality. The Field Sparrow is reported from Lanesboro, Fillmore County, in the southeastern part of the State, in the springs of 1884 and 1885 ('Report on Bird Migration in the Mississippi Valley in the years 1884 and 1885,' p. 202) and in a manuscript list of the birds of that locality, prepared by Dr. Hvoslef and temporarily in the hands of the writer through the courtesy of Dr. Merriam, it is noted as an "abundant summer resident." E. E. Thompson reports it as breeding in western Manitoba ('The Auk,' Vol. III, p. 324). There must be vast areas of intervening country where the species is sparingly distributed or does not occur at all.

**Helminthophila pinus.** BLUE-WINGED YELLOW WARBLER.—May 17, 1880, I shot a male bird at Minnehaha Falls near Minneapolis. The skin is now in my collection. This Warbler is undoubtedly rare here, and this is probably very near the limit of its northward migration. Dr. Hvoslef speaks of it as a rare migrant at Lanesboro, Fillmore Co., and records its occurrence in August. "Aug. 28, '87, shot 2."—Hvoslef.—THOS. L. ROBERTS, *Minneapolis, Minn.*

**Note on Pacific Coast Birds.**—I wish to call the attention of all ornithologists, to a circumstance that has never been sufficiently explained and may therefore cause misunderstanding in reference to my statement given in the 'Ornithology of California.' In 'The Auk' for Jan., 1890, I am quoted on p. 24 as saying that the eggs of *Pipilo fuscus mesoleucus* resemble those of *P. fuscus*. The facts are that I never saw the bird

mentioned alive, nor its eggs. I only collected in Arizona at Fort Mojave, about a mile from the California side of the River Colorado, and therefore considered the birds collected as without doubt belonging to the Californian avifauna. My MS. report was intended to relate only to birds belonging to California, as determined on good authority, though I included a few of the species found at Fort Mojave, which I had not actually obtained west of the river. But among them was *not* the *P. f. mesoleucus*, as I found none. In the preface to the 'Ornithology of California' it is stated that the plan was afterwards changed so as to include all land birds of the west slope of the United States, and Prof. Baird, who advised this, in editing the volume added all then known in the region, besides a few more, 'on a venture' or suspicion that they *might* at some future time be found there. His name was generally added, but not always, and thus I am quoted for what I did not write, and had no opportunity to prevent or correct (see Proc. Cal. Acad. Sc., VI., 189, 1875). As Prof. Baird had no eggs of the species mentioned he must have judged from those of *P. aberti*. Besides the 36 species which have "(Baird)" as authority at the end, all of which were then unknown as Californian, the following are included by him as editor, though for some unknown reason he did not add his name:

1. Harporhynchus cinereus, Lower California.
2. Campylorhynchus affinis, " "
3. Helminthophaga virginiaë.
4. Dendroeca chrysopareia.
5. Vireo atricapillus.
6. Vireo belli. Given by me in 1862 as found in California, for var. *pusillus*.
7. Vireo vicinior.
8. Pyrranga hepatica.
9. Plectrophanes nivalis.
10. Passerculus guttatus, Lower California.
11. Ammodramus samuelis. Now known as a variety of *Melospiza fasciata*.
12. Peucaea cassini.
13. Calamospiza bicolor.
14. Cyanospiza versicolor Lower California.
15. Pyrrhuloxia sinuata " "
16. Cardinalis igneus " "
17. Pipilo mesoleucus.
18. Pipilo albigula. Lower California.
19. Cyanura macrolopha.
20. Contopus pertinax. Lower California.
21. Atthis heloisæ " "
22. Centurus aurifrons.
23. Melanerpes formicivorus angustifrons. Lower California.
24. Nyctea nivea.
25. Surnia ulula.

26. *Falco femoralis*.  
 27. *Ectopistes migratoria*. Not found by me on western slope, except in Montana.  
 28. *Melopelia leucoptera*.  
 29. *Meleagris mexicana*.  
 30. *Callipepla squamata*.  
 Total 66.

Those from Lower California he supposed must soon be found north of the boundary, but so far but few have been obtained, chiefly in Arizona. As to the rest I ought not to be quoted for their occurrence either in California or anywhere on the Pacific slope, as my part of the work relates only to California birds.—J. G. COOPER, M. D., *Haywards, Cal.*

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## CORRESPONDENCE.

*[Correspondents are requested to write briefly and to the point. No attention will be paid to anonymous communications.]*

### Recording the Numbers of Birds Observed.

TO THE EDITORS OF THE AUK:—

*Dear Sirs:*—In an interesting article in 'The Auk' a year ago Mr. Witmer Stone speaks of the difficulty of estimating the number of birds in a given locality, and declares it "wellnigh impossible." Although this difficulty is, perhaps, not so great as it seems, yet it has been so generally recognized that almost all field observers seem to have accepted the case as hopeless, and to have contented themselves with entering a bird in their note-books, as well as in published lists, as 'abundant,' 'rare,' or 'rather common,' words of such pleasing indefiniteness that they seldom mean the same thing to two different observers, or to the same person in regard to different species. The result is that we have but the vaguest idea of the relative abundance of different birds or of the fluctuations of any one species in different years or from day to day through its period of migration.

To take a complete census—except perhaps during the breeding season—may be out of the question, but there is no reason why an observer should not make his work exact as far as his opportunities and abilities permit,—*i. e.*, why he should not keep a record of the exact number of birds of each species met with each day. This of course would not represent the actual number present in any locality, for varying circumstances of length of time spent in the field, extent and nature of the country covered during the day, weather, etc., would considerably modify the results, but, by entering all these facts in the day's journal, and giving them due consideration in making subsequent comparisons of the figures obtained, results can be reached that, if not exact, are at least an approach toward it, and of vastly more value than the record of a vague