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THE

BIRDS OF COLORADO

A Second Appendix to Bulletin

No. 37

—BY—

W. W. COOKE



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FURTHER NOTES
ON
THE BIRDS OF COLORADO.

BY W. W. COOKE.

Since the publication in March, 1898, of the notes on Colorado birds that had been gathered the previous year, many additional notes have been secured. The largest number from any one source have come from a thorough study of the fine collection of Mr. Edwin Carter at Breckenridge. This collection represents the work of Mr. Carter for more than thirty years. Much of the material was gathered in the immediate vicinity of Breckenridge, and the rest in Middle Park and South Park. Breckenridge is at an altitude of 9,500 feet, while Middle and South Parks are from 7,500 to 8,500, so that Mr. Carter's collection is especially valuable as showing the bird life of the mountains and mountain parks. Breckenridge is on the western slope of the main range, and this collection furnishes several new records for the Pacific side of the mountains as well as a higher range than before known for more than thirty species. The Carter collection contains 184 species of birds, of which 127 are known to breed in Middle and South Parks. Mr. Carter has also taken 16 species that are not now in the collection. The collection adds two new birds to the state, *Ammodramus leconteii* and *Falco sparverius deserticolus*, and one new breeding record, *Wilsonia pusilla pileolata*.

Much space is given to notes from this collection, because the recent death of Mr. Carter makes the collection complete so far as his work is concerned. No catalogue or summary of this collection has ever been published. The present writer made three visits to Breckenridge, and has studied every bird in the collection at least twice. The last visit was but a few days before Mr. Carter left home on that last trip from which he was not to return alive. On this visit a complete investigation was made of all Mr. Carter's records of birds he had taken that are not now in

the collection. This bulletin therefore presents the full work of Mr. Carter with reference to Colorado ornithology. Many of the notes from his collection add nothing new to our knowledge of the birds of the state, but are entered in order to make a complete catalogue of the species represented in the collection.

Most of the rest of the new notes come from the further investigations of Mr. C. E. Aiken, who has spent a great deal of time the past two years in collecting and studying the birds of the "Divide" and the plains east of Colorado Springs. From his own collecting he has added five birds to the Colorado list, and of two more he has obtained the records from other persons. One of the excursions of Mr. Aiken deserves special mention as showing the possibilities of Colorado ornithology. The days from May 19-27, 1899, he spent in the vicinity of Limon, about a hundred miles out on the plains east of Colorado Springs. A poor place for birds one would think, and yet while there he encountered what seemed to be a flight of eastern birds that had wandered from their usual course and strayed several hundred miles to the westward, and mingled with them some distinctively western species scarcely to be expected east of the mountains. The Red-bellied Woodpecker, Tennessee Warbler, Least Flycatcher, Red-bellied Nuthatch, Bobolink and Scarlet Tanager were rare visitants from the east found there, and in addition he took the Connecticut Warbler and the Canadian Warbler, both being the first records for Colorado.

In contradistinction to this highly successful trip, may be noted one taken by the present writer, which also shows the peculiar distribution of bird life in Colorado. About the middle of May he went from Fort Collins to Grand Junction. The latter place is about a hundred and fifty miles further south and five hundred feet lower than Fort Collins. Vegetation was at least two weeks in advance of the more northern location, but bird migration was apparently in just the same stage; being another instance of what is probably a general rule, that migration on a western slope is later than on an eastern. More surprising than this, however, was the character of the birds seen. Grand Junction is three hundred miles west of Fort Collins, on the Pacific slope and on the Grand river, that one would expect to find a natural highway for birds from the west and south. The country was quite carefully explored for twenty miles along the Grand and Gunnison rivers, and in all somewhat over forty different species of birds were identified. They were all common birds of the eastern slope, occurring at Fort Collins, except the Raven and the California Quail. The former occurs over all of

western Colorado, while the latter has been introduced and has become exceedingly abundant. Out among the greasewoods, where greasewood is about the only vegetation that can grow, these Quail vie with the lizards as to which shall be the most common animal life present. In the whole trip not a distinctively southern or western species was observed, nor is there one in the list of sixty-one species of birds seen there by Miss Myra Eggleston during several years residence. The valley of the San Juan river serves as a great highway for southwestern forms into southwestern Colorado, and many extend along the Rio Grande into south central Colorado on the Atlantic slope, but apparently there is some conformation of land or condition of climate that keeps these forms away from west central Colorado.

The present bulletin is paged in continuation of bulletins Nos. 37 and 44, and references are to the pages of these bulletins. On page 3 the total number of species and varieties known to occur in Colorado should be changed to 387, of which 243 are known to breed. Thus in the three years since the Colorado list was published, 27 additions have been made and 15 more species ascertained to breed in the state. There is good reason to believe that the list, even now, is far from complete. A single fact will show how great are the future probabilities. In a small collection of beautifully mounted birds at Cheyenne, Wyoming, prepared by Mr. Frank Bond, are six species of birds taken by him at Cheyenne, less than ten miles from the Colorado line, that have not yet been found in this state. These species are *Sterna hirundo*, *Pelecanus fuscus*, *Crymophilus fulicarius*, *Ægialitis meloda circumcincta*, *Anthus spragueii* and *Cistothorus stellaris*, and there is every reason to believe that each of these will eventually be added to the Colorado list.

CLASSIFICATION OF COLORADO BIRDS.

Changes to be made, including those already made on page 128 and pages 148-150.

Page 8. **1. Residents:** Add

Callipepla squamata.
Tympanuchus americanus.
Phasianus torquatus.
Falco sparverius deserticolus.
Syrnium nebulosum.
Coccothraustes vespertinus montanus.

Page 9. **2. Winter visitants.** Omit

Coccothraustes vespertinus montanus.

Page 10. **4. Species that have been taken in Colorado in winter, either as rare or accidental visitors.** Add

Gavia arctica.
Larus philadelphia.
Somateria dresseri.
Nyctala tengmalmi richardsoni.
Acanthis linaria rostrata.
Junco montanus.

Page 11. *B. Species that breed on the plains, but only to the foothills of the mountains.* Add

Philohela minor.
Callipepla squamata.
Tympanuchus americanus.

Phasianus torquatus.
 Syrniium nebulosum.
 Phalænoptilus nuttallii nitidus.
 Zamelodia ludoviciana.
 Seiurus aurocapillus.
 Harporhynchus bendirei.

Page 12. *C. Species that breed in the mountains or mountain parks and not on the plains.* Add

Falco sparverius deserticolus.
 Coccythraustes vespertinus montanus.
 Wilsonia pusilla pileolata.

D. Species that breed principally in the mountains. Add

Empidonax hammondi.

Page 13. *E. Species that breed regularly only in Southern Colorado.*
 Add

Plegadis guarauna.
 Callipepla squamata.

Page 13. **6. Species taken in the State during the summer, but not known to breed.** Add

Gavia imber.
 Aythya americana.
 Charitonetta albeola.
 Ardetta exilis.
 Totanus flavipes.
 Stellula calliope.
 Astragalinus psaltria mexicanus.
 Melospiza georgiana.

Omit

Plegadis guarauna.
 Callipepla squamata.
 Philohela minor.
 Phalænoptilus nuttallii nitidus.
 Seiurus aurocapillus.

Page 13. **7. Migrants.** Add

Gavia adamsii.
Branta canadensis minima.
Porzana jamaicensis.
Astragalinus tristis pallidus.
Piranga erythromelas.
Dendroica palmarum.

Omit

Harporhynchus bendirei.

Page 14. **8. Stragglers.** Add

Gavia adamsii.
Gavia arctica.
Somateria dresseri.
Branta canadensis minima.
Plegadis autumnalis.
Ardea egretta.
Porzana jamaicensis.
Nyctala tengmalmi richardsoni.
Bubo virginianus arcticus.
Coccyzus americanus.
Dryobates pubescens.
Stellula calliope.
Acanthis linaria rostrata.
Astragalinus psaltria mexicanus.
Ammodramus leconteii.
Melospiza georgiana.
Piranga erythromelas.
Dendroica palmarum.
Geothlypis agilis.
Geothlypis trichas.
Wilsonia canadensis.

Omit

Sylvania pusilla pileolata.
Harporhynchus bendirei.

Page 15. **10. Rare or irregular visitants, from the east or southeast.** Add

Branta canadensis minima.
Plegadis autumnalis.

Ardea egretta.
 Tympanuchus americanus.
 Syrnum nebulosum.
 Ammodramus leconteii.
 Melospiza georgiana.
 Zamelodia ludoviciana.
 Piranga erythromelas.
 Dendroica palmarum.
 Geothlypis agilis.
 Geothlypis trichas.
 Wilsonia canadensis.

Page 16. 12. Rare or irregular visitants, from the west or southwest. Add

Stellula calliope.
 Astragalinus psaltria mexicanus.

Add the star (*) to denote breeding, to
 Plegadis guarauna.

Page 16

SUMMARY.

Total species in Colorado	387
1. Residents	93
2. Regular winter visitants from the north	23
3. Regular breeders that sometimes occur in winter	17
4. Rare or accidental winter visitants	28
5. Summer residents	243
A. Breeding on plains and in mountains	101
B. Breeding on plains, but not in mountains	43
C. Breeding in mountains, but not on plains	56
D. Breeding principally in mountains, sparingly on plains	21
E. Breeding regularly only in southern Colorado	22
6. Summer visitants, not known to breed	18
7. Migrants	63
8. Stragglers	67
9. Regular visitants from east and southeast	14
10. Rare visitants from east and southeast	46
11. Regular visitants from west and southwest	20
12. Rare visitants from west and southwest	14

BIBLIOGRAPHY OF COLORADO ORNITHOLOGY.

- Page 21. Add. AIKEN, C. E. *Otocoris alpestris arenicola*.
Colorado Springs Gazette (local newspaper), Feb. 8, 1899.
 Habits of this bird during cold weather.
- Page 22. Add. ANTHONY, A. W. A new subspecies of the
 Genus *Dryobates*. *Auk*, *XIII*. 1896, p. 32.
 Describes the subspecies *Dryobates villosus montanus*. Rocky Mountain Woodpecker with the type from Boulder, Colorado. In *Auk*, *XV*. 1898, p. 54, Anthony changes *montanus* to *monticola*, and as such this subspecies has been recognized by the A. O. U.
- Page 22. Add. BAIRD, S. F. Smithsonian Miscellaneous Collections, 181, Review of American Birds in the Museum of the Smithsonian Institution. Part I. North and Middle America. Washington Smithsonian Institution, 1864-66, pp. IV., 450.
 Contains incidental records of a few species of birds taken in Colorado.
- BANGS, OUTRAM. A Review of the Three-toed Woodpeckers of North America. *Auk*, *XVII*. 1900, p. 126.
 Description of *Picoides americanus dorsalis*, with notes on nine specimens taken in Colorado.
- Page 26. Add. BREWSTER, WM. Lewis's Woodpecker Storing Acorns. *Auk*, *XV*. 1898, p. 188.
 Habits of the birds as noted near Denver, Colorado, and reported to him by Manly Hardy.
- Page 26. Add. CHRISTIE, N. R. The Pinon Jay. *Osprey*, *III*. 1898, p. 57.
 Short account of its breeding habits near Rouse Junction, Colorado.
- Page 27. Add. COOKE, W. W. The State Agricultural College, The Agricultural Experiment Station, Bulletin No. 44, Technical Series No. 4, Further Notes on the Birds of Colorado, An Appendix to Bulletin No. 37, on the Birds of Colorado. By W. W. Cooke. Approved by the Station Council. Alston Ellis, President. Fort Collins, Colorado, March,

1898. The Smith-Brooks Printing Company, Denver, pp. 145-176. [Date of distribution, March, 1898.]

Adds eleven new species to the state list; references to 15 books and articles; additional notes on 98 species.

COOKE, W. W. The Scarlet Ibis—A Correction. *Auk*, XV. 1898, p. 183.

Statement that the specimens of Scarlet Ibis reported in the *Auk*, XIV. 1897, p. 316, proved to be the White faced Glossy Ibis.

COOKE, W. W. A New Bird for Colorado. *Osprey*, III. 1898, p. 13.

A Le Conte's Sparrow taken by E. Carter at Breckenridge, October 2, 1886. It is stated that this is the first mountain record, but this is an error, as Merrill, *Auk*, XV, 1898, p. 16, had just previously recorded it from Idaho, west of the mountains, but at a much lower altitude. Breckenridge is 9,500 feet altitude. The article also contains records at Breckenridge of the Slate-colored Sparrow, Mockingbird and Bobolink.

COOKE, W. W. More New Birds for Colorado. *Auk*, XVI. 1899, p. 187.

Adds three new species to the state list, *Branta canadensis minima*, *Astragalinus psaltria mexicanus* and *Junco montanus*.

Page 29. Add. DILLE, F. M. Nesting of the Pine Siskin at Denver, Colo. *The Condor*, II. 1900, p. 73.

Several nests in the spring of 1899 within the city limits of Denver.

Page 31. Add. FREMONT, JOHN C. Report of the Exploring Expedition to the Rocky Mountains in the year 1842, and to Oregon and north California in the years 1843-4. By Brev. Capt. J. C. Fremont of the topographical engineers, under the orders of Col. J. J. Abert, chief of the topographical bureau. Printed by order of the House of Representatives, Washington; Blair & Rives, printers. 1845, p. 586.

Capt. Fremont crossed the State by way of the Grand river and the South Platte. His narrative contains only a few unimportant references to Colorado birds.

Page 31. Add. GILMORE, L. D. Western Goshawk in Colorado. *Osprey*, III. 1898, p. 28.

One shot at Sweetwater Lake, Garfield county, Colorado, February 12, 1898, by J. T. Meirer, and identified by the Smithsonian as *striatulus*. Two others seen later.

GILMORE, L. B. Some Notes on Colorado Birds. *Bul. Mich. Orn. Club*, II. April, 1898, p. 19.

Notes on seventeen species of birds seen in the vicinity of Dotsero, Colorado.

GILMORE, L. B. Notes on the Western Yellow-throat and Amer-

ican Raven in Colorado. *Bul. Mich. Orn. Club*, III. January, 1899, p. 8.

Notes on these two species seen near Dotsero.

Page 32. Add. HOWE, R. H., JR. Ranges of *Hylocichla fuscescens*, and *Hylocichla fuscescens salicicola* in North America. *Auk*, XVII. 1900, p. 22.

Measurements of two specimens of *salicicola* taken in Colorado.

Page 32. Add. INGERSOLL, EARNEST. Knocking Round the Rockies. Harper Bros., N. Y., 1883.

Contains descriptive notes on several Colorado birds.

Page 33. Add. "J." [CAPT. P. M. THORNE.] Snipe Wintering in Colorado. *Forest and Stream*. February 15, 1882.

Two Wilson's Snipe (*Gallinago delicata*) found February 3, 1882, at Fort Lyon, Colorado. The gizzard of the one shot contained partly digested fish.

Page 33. Add. JOHNSON, H. C. In the Breeding Home of Clarke's Nutcracker (*Nucifraga columbianus*). *The Condor*, II. 1900, p. 49.

Mentions all the nests of this bird taken in Colorado previous to 1900.

JONES, LYND. The Songs of the Warblers. (*Mniotiltidæ*). Laboratory Bulletin No. 10. Oberlin College. Also issued as Wilson Bulletin No. 30. Oberlin, Ohio, March 20, 1900, p. 57.

Notes on all the Warblers known to occur in the United States, with specific references to several of them as occurring in Colorado.

JONES, P. L. Flammulated Owls. *Osprey*, III. 1898, p. 46.

Records of three more captures near Beulah, Colorado, and one set of eggs.

Page 33. Add. KEYSER, LEANDER S. Rocky Mountain Birds. *Popular Science*, XXXIV. 1900, p. 3.

Short account of several common birds seen near Manitou.

KEYSER, LEANDER S. Rocky Mountain Birds. N. Y. Evening Post (newspaper), September 2, 1899.

Observations on the birds near Colorado Springs and Manitou.

Page 35. Add. NASH, H. W. Our Winter Birds. *The Cactus*. (Local magazine, Pueblo, Colorado.) II, No. 1, 1892.

Notes on the winter birds of Pueblo.

Page 35. Add. NELSON, E. W. Description of a new Subspecies of *Meleagris gallopavo* and proposed changes in the nomen-

clature of certain North American Birds. *Auk*, *XVII*. 1900, p. 120.

Describes a new sub-species, *Meleagris gallopavo merriami*, and assigns to it the wild turkeys of southwestern Colorado.

Page 35. Add. OBERHOLSER, HARRY C. Description of a new North American Thrush. *Auk*, *XV*. 1898, p. 303.

Describes *H. u. almæ*, subsp. nov. and gives Colorado as included in its habitat. This subspecies has been rejected by the A. O. U.

OBERHOLZER, HARRY C. A Revision of the Wrens of the Genus *Thryomanes* Sclater. *Proc. U. S. Nat. Mus.*, *XXI*. No. 1153, 1898, p. 427.

Gives a new name, *Thryomanes bewickii eremophilus*, to the form that occurs in Colorado. Up to January, 1900, this had not been passed upon by the A. O. U.

Page 36. RIDGWAY, ROBERT. New Species, etc., of American Birds, II. Fringillidæ (continued). *Auk*, *XV*. 1898, p. 319.

Describes a new subspecies, *Calcarius lapponicus alascensis*, Alaskan Longspur, and includes Colorado in its habitat.

THE HISTORY OF COLORADO ORNITHOLOGY.

Page 41. Add.

1864-6. **Baird.** *Review of American Birds.* Adds *Lanius ludovicianus excubitorides* taken in Colorado by D. Thompson.

Page 42.

Under 1872. **Allen.** Omit *Lanius ludovicianus excubitorides*, as it had already been recorded by Baird in his *Review of American Birds.*

Page 48. Add.

1898. **Cooke.** *Osprey, III.* 1898, p. 13. *Ammodramus leconteii* taken by Carter at Breckenridge.

1899. **Cooke.** *Auk, XVI.* 1899, p. 187. *Astragalinus psaltria mexicanus* and *Branta canadensis minima* taken at Denver; *Junco montanus* taken at Pueblo.

1900. **Cooke.** *Colorado Experiment Station Bulletin No. 56.* The present publication contains the first records for Colorado of nine species as follows: *Gavia arctica*, *Ardetta egretta*, *Syrnium nebulosum*, *Astragalinus tristis pallidus*, *Geothlypis agilis*, *Geothlypis trichas* and *Wilsonia canadensis* by Aiken; *Plegadis autumnalis* by A. T. Allen; *Falco sparverius deserticolus* by Carter.

Page 48. **RECAPITULATION.** Add.

1898..	W. W. Cooke.....	1	364
1898..	W. W. Cooke.....	10	374
1898..	W. W. Cooke.....	1	375
1899..	W. W. Cooke.....	3	378
1900..	W. W. Cooke.....	9	387

THE BIRDS OF COLORADO.

Page 49. 1. **Æchmophorus occidentalis.** WESTERN GREBE.

Two shot out of three seen on Sheldon's Lake, near Fort Collins, October 29, 1898, by Wils Black. One of them is now mounted in the museum of the Agricultural College.

This species has been seen by Edwin Carter in South Park, but not taken.

Page 49. 4. **Colymbus nigricollis californicus.** AMERICAN EARED GREBE.

Has been seen at Breckenridge in migration by Edwin Carter, and breeds abundantly in Middle Park. In the following pages many records of Mr. Carter are given which are not in a certain sense new records, since they would be implied by the knowledge of the occurrence of the species in neighboring localities, but they are entered here both as a record of Mr. Carter's wide study of Colorado birds in localities not visited by other naturalists, and to furnish additional proof of the correctness of previous published records. Breckenridge is on the Blue River at an elevation of 9,500 feet, and about fifty miles from the junction of the Blue and the Grand rivers. Most of Mr. Carter's records of "Middle Park" meant the country around the mouth of the Blue river, with an altitude of 7,000-7,500 feet. His expeditions cover considerable of South Park, but most of his collecting has been along the branches of the South Platte on the eastern side of the park at about 8,000 feet.

Page 50. 6. **Podilymbus podiceps.** PIED-BILLED GREBE.

Seen by Mr. Carter at Breckenridge in migration, but never known to breed there.

Page 50. 7. Change to **Gavia imber.** LOON.

This and many changes given later are made to conform with the present nomenclature of the American Ornithologists'

Union. In the remainder of these notes the words "Change to" will be omitted and merely the present name given.

Seen by Mr. Carter in Middle Park. Mr. L. B. Gilmore reports that one was shot in July, 1897, on Sweetwater Lake, was mounted and is now in the possession of Mr. John Root. This is the first summer record for Colorado.

Page 50. Add. 9. **Gavia arctica.** BLACK-THROATED LOON.

A northern species occurring as a rare fall and winter visitant to Colorado.

Mr. C. E. Aiken of Colorado Springs, contributes the following notes.

"Three small Loons were observed on Prospect Lake in the suburbs of Colorado Springs, in November, 1898, and all were shot by a local gunner. One which I subsequently examined proved to be of this species.

"I also examined in 1883 a specimen killed, I think, the previous fall near Colorado Springs.

"Colorado is within the probable winter range of the species, and it may be a regular visitant."

Page 50. Add. [10. **Gavia pacifica.** PACIFIC LOON.

One was shot in November, 1899, near Clayton, New Mexico, just over the Colorado line, and was presented by Mr. Jesse Harris to the museum of the Agricultural College at Fort Collins.

[This is the western form, not before recorded east of the Rocky Mountains.]

Page 50. Add. [11. **Gavia lumme.** RED-THROATED LOON.

The distribution of this species is given in the A. O. U. Check List as "Northern part of northern hemisphere, migrating southward in winter nearly across the United States." This would bring Colorado within the limits of its distribution, and hence it is one of the species that should be especially sought. It has been taken in Nebraska.

In the following pages about twenty such species are included as showing what will probably be found some day in Colorado, and to direct attention to them as species for future investigation.]

Page 50. 53. **Larus californicus.** CALIFORNIA GULL.

Mr. Carter's collection contains two specimens of this Gull; one taken April 28, 1884, in Middle Park at 7,000 feet, and the other taken at Denver, October 26, 1878.

Page 51. 54. **Larus delawarensis.** RING-BILLED GULL.

The present writer found this species breeding quite commonly June 18, 1898, at the San Luis Lakes at an altitude of 7,500, being more than a thousand feet above previous breeding records. Mr. Carter has never found them breeding nor seen them in fall migration, but in spring has seen them in both South and Middle Parks.

Page 51. 60. **Larus philadelphia.** BONAPARTE'S GULL.

Three more instances are known from Colorado Springs, Denver and Longmont. The one from Denver is in winter plumage. Mr. Carter has taken one in Middle Park in the spring, this being the first record for Colorado west of the range.

Page 51. 62. **Xema sabinii.** SABINE'S GULL.

Mr. Carter has a specimen taken September 26, 1886, on an alpine lake near Breckenridge at over 10,000 feet. Mr. Aiken killed one at Manitou Park, October 10, 1897.

Page 51. Add. [64. **Sterna tschegrava.** CASPIAN TERN.

"Nearly cosmopolitan; in North America breeding southward to Virginia, Lake Michigan, Texas, Nevada and California."—(A. O. U.) Has been taken in Nebraska and probably will later be added to Colorado birds.]

Page 51. 69. **Sterna forsteri.** FORSTER'S TERN.

Noted by Mr. Carter only in migration.

Page 51. Add. [70. **Sterna hirundo.** COMMON TERN.

This Tern occurs over all of North America, but chiefly east of the plains. Specimens of both young-of-the-year and old birds are in Mr. Bond's collection, taken at Cheyenne. It is also known from Kansas and Nebraska, so we may confidently expect that the future will add this to the list of Colorado birds.]

Page 52. [74. **Sterna antillarum.** LEAST TERN.

"Northern South America, northward to California, Minnesota and New England, and casually to Labrador, breeding nearly throughout its range."—(A. O. U.) Has been noted many times in both Nebraska and Kansas and undoubtedly comes into eastern Colorado, though up to the present it has no Colorado record.]

Page 52. Add. [121. **Phalacrocorax mexicanus.** MEXICAN CORMORANT.

"West Indies and Central America to southern United States: north in the interior to Kansas and southern Illinois."—(A. O. U.) There has also been a specimen reported from Nebraska, so it should be looked for in Colorado.]

Page 52. 125. **Pelecanus erythrorhynchos.** AMERICAN WHITE PELICAN.

Several late records indicate that these birds have not yet deserted Colorado. A flock of about forty was seen feeding on a small lake near Denver in the spring of 1898.

Mr. Carter has one taken at Breckenridge, August 10, 1892, has seen them in both Middle and South Parks, has seen them feeding on alpine lakes and even migrating over the mountain passes at 13,000 feet.

Page 52. Add. [126. **Pelecanus fuscus.** BROWN PELICAN.

One was taken July 12, 1899, near Cheyenne, Wyoming, and is now in the Bond collection.

Page 52. 129. **Merganser americanus.** AMERICAN MERGANSER.

Breeds at Breckenridge.

Page 53. 130. **Merganser serrator.** RED-BREASTED MERGANSER.

One taken by Mr. Carter in Middle Park is the first record west of the range in Colorado.

Page 53. 131. **Lophodytes cucullatus.** HOODED MERGANSER.

Mr. Carter has one taken June 1, 1871, near Canon City.

Page 53. 132. **Anas boschas.** MALLARD.

Taken breeding by Mr. Carter in South and Middle Parks.

Page 53. In place of 133. **Anas obscura.** BLACK DUCK. Put 134a. **Anas fulvigula maculosa.** MOTTLED DUCK.

Although no specimens of this duck taken in Colorado have been examined by the present writer, yet there can be no doubt that the three specimens reported really belong to this subspecies.

Page 53. 135. **Chaulelasmus streperus.** GADWALL.

Breeds in Middle Park, according to Mr. Carter.

Page 54. 137. **Mareca americana.** BALDPATE.

Seen by Mr. Carter in summer in Middle Park at 7,000.

Page 54. 139. **Nettion carolinensis.** GREEN-WINGED TEAL.

140. **Querquedula discors.** BLUE-WINGED TEAL.

141. **Querquedula cyanoptera.** CINNAMON TEAL.

142. **Spatula clypeata.** SHOVELLER.

These four species of ducks have all been found by Mr. Carter at Breckenridge in migration, but are none of them known by him to breed at that altitude, though all breed in the great mountain parks.

Page 55. 143. **Dafila acuta.** PINTAIL.

Mr. Carter has taken Pintails in Middle Park at a little over 7,000 feet.

Page 55. 144. **Aix sponsa.** WOOD DUCK.

Two occurrences near Cheyenne are reported by Mr. Bond, who says they are quite common in northern Wyoming. Mr. A. T. Allen has known several instances in the vicinity of Denver, but none of these were in the summer.

Page 55. 146. **Aythya americana.** REDHEAD.

Facts are accumulating which make it probable that this species will in the near future be accounted among the breeding birds of Colorado. Several of these birds stayed in the reservoir at City Park in Denver all the summers of 1898 and 1899, but there was nothing to indicate that they nested there. A red-headed duck, presumably of this species, a fine male, was shot at the San Luis Lakes, June 18, 1898. This species, as well as the Canvas-back, is known to breed from northern United States northward.

Page 55. 147. **Aythya vallisneria.** CANVAS-BACK.

Page 55. 148. **Aythya marila.** SCAUP DUCK.

Page 56. 149. **Aythya affinis.** LESSER SCAUP DUCK.

These three have been taken by Mr. Carter at Breckenridge in migration.

Page 56. 152. **Clangula islandica.** BARROW'S GOLDEN-EYE.

Mr. Carter reports these ducks as common breeders in Middle Park, and that he once found them nesting at Georgia Pass at an altitude of 10,000 feet. As recorded by Brewer, *B. N. O. C. IV.*, 1879, *p. 148*, Mr. Carter took in Colorado in 1876 the first eggs of this species known to science.

Page 56. 153. **Charitonetta albeola.** BUFFLE-HEAD.

In the Carter collection is a fine male taken in Middle Park April 14, 1877, and a female taken May 5, 1884. Mr. Carter says that later in 1884, sometime in July, in Middle Park, he took both male and female. The male was in such worn plumage that it was not saved. The female was kept and mounted, but is not now on hand. Known to breed from northern United States northward.

Page 56. 154. **Harelda hyemalis.** OLD-SQUAW.

On October 16, 1898, B. Haywood killed two at Calkins' Lake near Longmont. On October 23 he killed another at the same place. Skins of two of these are now at the capitol at Denver.

Page 57. 155. **Histrionicus histrionicus.** HARLEQUIN DUCK.

Mr. Carter has found it breeding in Middle Park and on the Blue river a little below Breckenridge at 9,200 feet altitude.

Page 57. 165. **Oidemia deglandi.** WHITE-WINGED SCOTER.

One was shot on Barr Lake near Denver, November 2, 1898, and reported by Mr. Fenton.

Page 57. 166. **Oidemia perspicillata.** SURF SCOTER.

Two were killed at Loveland on October 31, 1899, by Mr. H. A. Flynn of Denver.

A few days before, on October 22, Mr. L. B. Meek shot a fine male at Barr Lake near Denver. The female was with it, but was not secured. Three other specimens were known at the same place within the next week.

Page 57. 167. **Erismatura jamaicensis.** RUDDY DUCK.

At Breckenridge, Mr. Carter knows them only as migrants, though they nest but a little lower down toward the Park.

Page 58. 169. **Chen hyperborea.** LESSER SNOW GOOSE.

Once seen by Mr. Carter in Middle Park.

Page 58. 169a. **Chen hyperborea nivalis.** GREATER SNOW GOOSE.

One was killed by Mr. John F. Campion of Denver, at Boyd's Lake near Loveland, April 9, 1899. It was a female and is now in the capitol at Denver.

Page 58. Add. [169. 1. **Chen caerulescens.** BLUE GOOSE.

"Interior of North America, breeding on eastern shores of Hudson Bay and migrating south, in winter, through Mississippi valley to Gulf coast."—(A. O. U.) "Interior of North America east of the Rocky Mountains."—(Goss.) Noted from Kansas and Nebraska as not uncommon in fall and winter.]

Page 58. 171a. **Anser albifrons gambeli.** AMERICAN WHITE-FRONTED GOOSE.

There is one in the Carter collection taken in Middle Park, and Mr. Carter says that in migration he has sometimes seen them there in quite large numbers.

Page 58. 172. **Branta canadensis.** CANADA GOOSE.

In migration at Breckenridge and breeds in Middle Park.

Page 59. Add. 172c. **Branta canadensis minima.** CACKLING GOOSE.

There is one at the capitol in Denver, killed by Mr. John F. Campion at Loveland, April 10, 1898, and presented by him to the State Natural History Society.

Page 59. 180. **Olor columbianus.** WHISTLING SWAN.

One taken by Mr. Carter in Middle Park.

Page 60. Add. 186. **Plegadis autumnalis.** GLOSSY IBIS.

Accidental. A fine specimen of this bird in full plumage is

at Mr. A. T. Allen's in Denver. It was shot by him near Denver several years ago. This is the southern form and Denver is many miles north of its ordinary range. Mr. Aiken writes that Mr. B. G. Voight of Denver shot an adult male April 12, 1898, along the Arkansas river, three miles west of Salida. Mr. Voight has the mounted specimen still in his possession.

Page 60. 187. **Plegadis guarauna.** WHITE-FACED GLOSSY IBIS.

Several more records have been received. Two specimens were shot on Barr Lake near Denver, October 3, 1898. Four were shot in the fall at Twin Lakes at an elevation of 9,000 feet. Mr. A. T. Allen has a young-of-the-year taken near Denver. Mr. Carter has taken them in South and Middle Parks and at Twin Lakes, and there is a specimen at Glenwood Springs shot in the vicinity. These last two are the first records west of the range in Colorado.

Page 60. 188. **Tantalus loculator.** WOOD IBIS.

Mr. Carter has seen the wing and bill of one taken on the Blue river, twenty-five miles below Breckenridge, at about 8,000 feet.

Page 60. 190. **Botaurus lentiginosus.** AMERICAN BITTERN.

Found by Mr. Carter breeding in both Middle and South Parks.

Noted by Mr. A. D. Baker in the Wet Mountain valley at 8,000 feet.

Page 61. 191. **Ardetta exilis.** LEAST BITTERN.

A mounted specimen is now in Denver, taken by Mr. Rudolph Borchardt on Berkeley Lake near Denver, June 8, 1898. Mr. Carter has one taken in South Park, May 14, 1875, and Mr. A. D. Baker has seen one in the Wet Mountain valley at over 8,000 feet.

Page 61. 194. **Ardea herodias.** GREAT BLUE HERON.

Once found by Mr. Carter, breeding in Middle Park at 7,000 feet altitude, and it has been seen by Mr. A. D. Baker in the Wet Mountain valley at least a thousand feet higher.

Page 61. Add. 196. **Ardea egretta.** AMERICAN EGRET.

Rare or accidental in spring. Mr. C. E. Aiken writes as follows: "On May 12th, 1899, Mr. A. Gruber and Mr. F. Cikanek—taxidermists in my employ—reported seeing a single bird in a tall cottonwood tree five miles south of Colorado

Springs. As they are familiar with this species, as well as the more common *A. candidissima*, there appears no reason to doubt their identification.

Page 61. 197. ***Ardea candidissima***. SNOWY HERON.

So many records for Colorado are accumulating of this species that it must be counted as a regular summer visitant to the state, whether or not it breeds. Two more specimens are known from Denver; three known by Mr. Aiken at Colorado Springs the spring of 1899; one at Glenwood Springs the spring of 1898, while Mr. Carter has not only taken them in Middle and South Parks, but even at Twin Lakes at 9,000 feet. A male and female were taken together by Mr. Carter, May 12, 1896, on the Gunnison river.

Page 61. Add. [201. ***Ardea virescens***. GREEN HERON.

"Temperate North America."—(A. O. U.) Common summer resident of Nebraska and Kansas. Also known as common in the states west of Colorado. Should be noted before long from Colorado.

Page 61. 202. ***Nycticorax nycticorax nævius***. BLACK-CROWNED NIGHT HERON.

In 1875 Mr. Aiken found them breeding at the San Luis Lakes and secured eggs. The present writer also found them there in 1898. Mr. Carter has taken them in both Middle and South Parks. Mr. L. B. Gilmore saw them on Sweetwater Lake at 8,000 feet, which is one of the highest records for this species.

Page 62. 205. ***Grus canadensis***. LITTLE BROWN CRANE.

Mr. A. T. Allen has a mounted specimen, shot several years ago near Denver.

Page 62. 206. ***Grus mexicana***. SANDHILL CRANE.

Mr. Carter has known of their breeding in Middle Park to about 8,000 feet, and Mr. Baker saw some November 15, 1899, in the Wet Mountain valley at about the same altitude.

Page 63. Add. [208. ***Rallus elegans***. KING RAIL.

In Goss' "Birds of Kansas" this species is given as extending "West into Colorado." There seems to be an error about this, and there is at present no undoubted record of this bird in Colorado. Since, however, it is a common species in Kansas and Nebraska, nearly to the Colorado line, we may expect sooner or later to have the above record verified.]

Page 63. 212. ***Rallus virginianus***. VIRGINIA RAIL.

Taken by Mr. Aiken at the San Luis Lakes, June 30, 1875, and therefore breeding there at 7,500 feet. One was brought to Mr. Aiken that was shot February 16, 1899, at a spring five miles from Colorado Springs. It was a male in good condition,

though this was the middle of one of the severest winters ever known in Colorado, with the temperature many degrees below zero. Several were said to have been seen, and also a smaller, darker kind that was probably *carolina*. Has been seen by Mr. Baker in the Wet Mountain valley at over 8,000 feet.

Page 63. 214. **Porzana carolina.** SORA.

Taken by Mr. Carter at Breckenridge, and breeds from Middle Park up the Blue river to about 9,000 feet.

Page 63. Add. [215. **Porzana noveboracensis.** YELLOW RAIL.

"Chiefly eastern North America, north to Nova Scotia, Hudson Bay, etc., less commonly west to Nevada and California."—(A. O. U.) Thus by implication Colorado is included in its habitat, but it has not yet been found here. Known as not uncommon in Kansas and Nebraska.]

Page 63. 221. **Fulica americana.** AMERICAN COOT.

Breeds in Middle and South Parks, but known by Mr. Carter at Breckenridge only in migration.

Page 63. 223. **Phalaropus lobatus.** NORTHERN PHALAROPE.

Mr. Carter saw several in Middle Park at 7,000 feet, May 26, 1884. He has taken them at Breckenridge in migration.

Page 63. 224. **Steganopus tricolor.** WILSON'S PHALAROPE.

Two pairs were taken near Glenwood Springs during the spring of 1898. Mr. Carter has taken them in migration in both Middle and South Parks, but not at Breckenridge. On September 1, 1885, he took a young-of-the-year at timber line.

Page 64. 225. **Recurvirostra americana.** AMERICAN AVOCET.

At the same places where Aiken found them breeding in the San Luis valley in 1875, the present writer found them breeding in 1898. Mr. Carter says that he has found them breeding in South Park, and has taken them in migration at Breckenridge.

Page 64. 230. **Gallinago delicata.** WILSON'S SNIPE.

Mr. L. B. Gilmore reports it as remaining nearly every winter around Sweetwater Lake at 8,000 feet. About January 20, 1900, he saw nine at one time. It also breeds sparingly in that vicinity. At Breckenridge it has been noted only in migration.

Page 65. 233. **Micropalama himantopus.** STILT SANDPIPER.

Several more records have come to hand of this rare Sandpiper. Mr. Aiken took one at Colorado Springs, May 14, 1884.

Mr. Carter has one taken at Breckenridge, and has also taken them years ago in both Middle and South Parks.

Page 65. Add. [234. **Tringa canutus.** KNOT.

"Nearly cosmopolitan. Breeds in high northern latitudes, but visits the southern hemisphere during its migrations."—(A. O. U.) Should be looked for in Colorado, as it has been taken in both Kansas and Nebraska.]

Page 65. 241. **Tringa bairdii.** BAIRD'S SANDPIPER.

242. **Tringa minutilla.** LEAST SANDPIPER.

246. **Ereunetes pusillus.** SEMIPALMATED SANDPIPER.

All three have been taken by Mr. Carter in Middle and South Parks.

Page 66. 249. **Limosa fedoa.** MARBLED GODWIT.

Mr. Carter has taken them as high as Breckenridge, far above their ordinary range.

Page 66. 254. **Totanus melanoleucus.** GREATER YELLOW-LEGS.

Taken by Mr. Carter in migration in both Middle and South Parks, and by Mr. Baker in Wet Mountain valley, at least to 8,000 feet.

Page 66. 255. **Totanus flavipes.** YELLOW LEGS.

Taken by Mr. Carter in migration in both Middle and South Parks.

Page 67. 256. **Helodromas solitarius.** SOLITARY SANDPIPER.

Page 67. 258a. **Symphemia semipalmata inornata.** WESTERN WILLET.

At Breckenridge Mr. Carter has noted it only in migration.

Page 67. Add. [262. **Tryngites subruficollis.** BUFF-BREASTED SANDPIPER.

"North America, especially in the interior."—(A. O. U.) Known from Kansas and Nebraska and should be taken in Colorado.

Page 67. 263. **Actitis macularia.** SPOTTED SANDPIPER.

Breeds at Breckenridge.

Page 67. 264. **Numenius longirostris.** LONG-BILLED CURLEW.

Taken by Mr. Carter at Breckenridge in migration, and found by him breeding in Middle and South Parks.

Page 68. 270. **Squatarola squatarola.** BLACK-BELLIED PLOVER.

In Mr. Bond's collection is a very fine specimen in *full breeding plumage*, taken at Cheyenne, May 21, 1898.

Page 68. 273. **Ægialitis vocifera.** KILLDEER.
Breeds at Breckenridge.

Page 68. 274. **Ægialitis semipalmata.** SEMIPALMATED PLOVER.

One in Mr. Carter's collection was shot from a large flock seen by him in the fall on Grand Lake in Middle Park.

Page 68. Add. [277a. **Ægialitis meloda circumcincta.** BELTED PIPING PLOVER.

There is one in the Bond collection, taken at Cheyenne, May 13, 1892, but although this is so close to Colorado, and it is known in both Kansas and Nebraska, yet up to the present time it has no record for this State.]

Page 68. Add. [278. **Ægialitis nivosa.** SNOWY PLOVER.

"Western United States, from California east to Kansas and western Gulf States."—(A. O. U.) Surely this ought to include Colorado, but it has no record here as yet.]

Page 68. 281. **Ægialitis montana.** MOUNTAIN PLOVER.

Mr. Carter has never seen them at Breckenridge, even in migration, but has found them breeding in South Park.

Page 69. 283. **Arenaria interpres.** TURNSTONE.

Eight of these birds were killed on Berkeley Lake near Denver, May 18, 1900, and four of them, two males and two females, were mounted by Mr. Rudolph Borchardt.

Page 69. 289. **Colinus virginianus.** BOB-WHITE.

Introduced about 1891 near Grand Junction and still occurs there, but not in anywhere near the numbers of the California Partridge. They occur in the Wet Mountain valley to at least 8,000 feet. They are native and not uncommon at Wray, in eastern Colorado on the plains.

Page 69. Add. [289b. **Colinus virginianus texanus.** TEXAN BOB-WHITE.

As its name implies, this is a Texas species, inhabiting southern and western Texas. It has been taken in southwestern Kansas. If it occurs anywhere in Colorado it would be in the extreme southeastern corner, along the Cimarron river. No ornithologist has ever penetrated this part of Colorado, which undoubtedly holds many new records for the fortunate one that explores it. It is fair to presume that of the dozen or fifteen species known to occur along the Cimarron a little further east, that have not yet been taken in Colorado, that several follow it up occasionally into this State. Whoever goes into that country should seek especially for the Lesser Prairie Hen, the Texan Bob-white, and settle definitely whether the Turkey of that region is the eastern form. So far as is known to the present writer, all of the Turkeys in the various collections in the State are referable to the Mexican form.

Page 69. 293. **Callipepla squamata.** SCALED PARTRIDGE.

A queer state of affairs has come to light in regard to the occurrence of this species in Colorado, that shows strongly how much there is yet to be learned about Colorado ornithology. In 1895 W. P. Lowe gave in the Auk the first published record of this species for Colorado. It was considered a rare specimen and extended the known range nearly three hundred miles north-eastward. Two years ago a specimen was sent to the present writer that was taken at Rocky Ford, but was supposed to have been introduced there. Now it has become known that they are common among the cedars on the higher arid lands back from the river and miles away from water. The cowboys that rode the range at least sixteen years ago, report that they were more plentiful there then than they are now. Lately they have been working toward the cultivated lands along the river, and during the winter of 1899-1900 they have become, in the vicinity of Rocky Ford, more common than the Bob-white. The Scaled Partridge should therefore be considered as resident; common locally.

Page 69. 294. **Lophortyx californicus.** CALIFORNIA PARTRIDGE.

A few years ago nearly a thousand of these birds were turned loose at Grand Junction. They have thriven wonderfully and the country now is full of them. They average two broods per year and the market gardeners claim they are a nuisance in their vegetable gardens.

Page 70. 295. **Lophortyx gambelii.** GAMBEL'S PARTRIDGE.

Page 70. 297. **Dendragapus obscurus.** DUSKY GROUSE.
Breeds at Breckenridge.

Page 70. 300b. **Bonasa umbellus umbelloides.** GRAY RUFFED GROUSE.

At last the present writer has had the good fortune to see this bird with his own eyes. A family of old and young were seen August 12, 1899, on South Fork in Estes Park, at 9,000 feet elevation.

Page 70. 304. **Lagopus leucurus.** WHITE-TAILED PTARMIGAN.
Breeds at Breckenridge.

Page 71. 305. **Tympanuchus americanus.** PRAIRIE HEN.

Resident. Further records of this species allow us now to include it among the breeders. Mr. Otto Derr writes that at

Wray the Prairie Hen is not an uncommon breeder, occurring there with the Sharp-tailed Grouse and Bob-white.

Page 71. 308b. **Pediocetes phasianellus campestris.**
PRAIRIE SHARP-TAILED GROUSE.

Mr. Carter says that they breed in Middle Park, but only in the lower parts, not above 7,500 feet. In winter they have been noted up to 9,500 feet.

Page 71. 309. **Centrocercus urophasianus.** SAGE GROUSE.

The highest that Mr. Carter has found them breeding is at Dillon, about 9,000 feet. In their migration, or more properly, wanderings, he has taken them at Breckenridge, and has even seen them crossing the main range at 14,000 feet.

Page 71. 310a. **Meleagris gallopavo fera.** WILD TURKEY.

As late as 1898 Turkeys were seen in Wet Mountain valley, and though they are entered here as belonging to the eastern form this is without sure proof, and the line in Colorado separating the two forms has not yet been settled.

Page 72. 310. **Meleagris gallopavo.** MEXICAN TURKEY.

The Turkey in Mr. Carter's collection is a well marked specimen of the western bird, though taken on the Atlantic slope in South Park in January, 1878.

Page 72. 312. **Columba fasciata.** BAND-TAILED PIGEON.

Mr. Carter has found them nesting in South Park, but has never seen them at Breckenridge. The present writer saw a flock of eight at Mary's Lake in Estes Park in August, 1898, and a single bird at the same place the next August.

Page 73. Add. [315. **Ectopistes migratorius.** PASSENGER PIGEON.

"Eastern North America, from Hudson Bay southward, and west to the Great Plains, straggling thence to Nevada and Washington."—(A. O. U.) It would be strange if the true eastern Pigeon did not occur occasionally in Colorado, and it has several times been reported here. All of these records or statements, when followed up, prove to be the Band-tailed Pigeon.]

Page 73. 316. **Zenaidura macroura.** MOURNING DOVE.

Breeds at Breckenridge.

Page 73. 319. **Melopelia leucoptera.** WHITE-WINGED DOVE.

One was shot by Mr. A. D. Baker in the Wet Mountain valley in September, 1899. This is the fourth record for Colorado, and makes it probable that the bird is not a mere straggler to the State.

Page 73. Add. [326. **Catharista urubu.** BLACK VULTURE.

"South Atlantic and Gulf States, * * * west to the Great Plains, * * * straggling north to South Dakota."—(A. O. U.) Has been taken in western Kansas and probably will some time be found as a rare summer visitant in southeastern Colorado.]

Page 73. 331. **Circus hudsonius.** MARSH HAWK.

Breeds to at least 8,000 feet, near Breckenridge.

Page 74. 332. **Accipiter velox.** SHARP-SHINNED HAWK.

Breeds at Breckenridge.

Page 74. 333. **Accipiter cooperi.** COOPER'S HAWK.

Not known by Mr. Carter to breed at Breckenridge, though not uncommon as a breeder a little lower in Middle Park.

Page 74. 334. **Accipiter atricapillus.** AMERICAN GOSHAWK.

Occurs at Breckenridge both in summer and in winter.

Page 74. 334a. **Accipiter atricapillus striatulus.** WESTERN GOSHAWK.

One was shot at Sweetwater Lake, Garfield county, February 12, 1898, by Mr. J. T. Meirer, and identified by the Smithsonian. Two others were seen later. One was taken near Colorado Springs in winter, and is now in Mr. Aiken's collection. Mr. Carter has quite a collection of Goshawks taken in the vicinity of Breckenridge, largely intermediates, but nearly half of them would be classed under the head of *striatulus*.

Page 75. 337b. **Buteo borealis calurus.** WESTERN RED-TAIL.

Page 75. 342. **Buteo swainsoni.** SWAINSON'S HAWK.

Page 75. 348. **Archibuteo ferrugineous.** FERRUGINOUS ROUGH-LEG.

Page 75. 349. **Aquila chrysaetos.** GOLDEN EAGLE.

These four are represented in the Carter collection and all breed at Breckenridge.

Page 76. 352. **Halizæetus leucocephalus.** BALD EAGLE.

Mr. Carter has known of its breeding at Breckenridge and nearly to 10,000 feet.

Page 76. 360. **Falco sparverius.** AMERICAN SPARROW HAWK.

A Sparrow Hawk in the collection of the Agricultural College at Fort Collins, taken on the plains near there, is referable to the eastern form, but shows a tendency toward the western. Of five adult birds in Mr. Carter's collection, taken in the moun-

tains, two are eastern and three western. One of the eastern birds was taken east of the range and the other west.

Page 76. Add. 360a. **Falco sparverius deserticolus.**
DESERT SPARROW HAWK.

Resident. Two adult males and one adult female in Mr. Carter's collection are clearly referable to the western form. They were taken in Middle and South Parks.

Page 77. 364. **Pandion haliaetus carolinensis.** AMERICAN OSPREY.

Mr. Carter has seen them at Breckenridge, and knows of their nesting as high as 8,500 feet, on the Blue river.

Page 77. 365. **Strix pratincola.** AMERICAN BARN OWL.

One has been seen by Mr. A. D. Baker in the Wet Mountain valley. An adult female was shot at Rocky Ford in June, 1898, and is now in the collection of A. J. Dean.

Page 77. 366. **Asio wilsonianus.** AMERICAN LONG-EARED OWL.

Common near Breckenridge.

Page 77. 367. **Asio accipitrinus.** SHORT-EARED OWL.

Has been taken at Breckenridge in winter.

Page 77. Add. 368. **Syrnium nebulosum.** BARRED OWL.

Resident. A common species of eastern United States, west to Nebraska and Kansas, now first added to Colorado birds by the following note from Mr. C. E. Aiken:

"In March, 1897, Mr. B. G. Voight found a pair of these Owls breeding near Holyoke, in the northeast corner of the state. Two eggs, somewhat incubated, and one of the birds were secured."

Page 77. 371. **Nyctala tengmalmi richardsoni.** RICHARDSON'S OWL.

A second specimen for Colorado is the one taken by Mr. Carter at Breckenridge, December 28, 1882, and now in his collection.

Page 77. 372. **Nyctala acadica.** SAW-WHET OWL.

Mr. Carter's collection contains an adult taken at Breckenridge and also a young-of-the-year taken there August 10, 1884. Though Mr. Carter has seen no nests at Breckenridge, there can be little doubt that they breed there.

As the present writer was working on this part of this bulletin, January 31, 1900, one of our students caught a fine specimen in his hands in one of the evergreens near the main College building.

Page 78. 374. **Megascops flammeola.** FLAMMULATED SCREECH OWL.

Nine new records for Colorado and four instances of breeding can be added to the fourteen previous specimens known. P. L. Jones reports one found dead May 1, 1898; a female and two fresh eggs that proved infertile, June 27, 1898; a young male caught by a cat, September 12, 1898; a female and three eggs incubated about four days, June 5, 1899. All four cases were near Beulah, at less than 7,000 feet. Capt. D. B. Ingraham reports finding a female and two fresh eggs June 2, 1898, and two days later a female and two slightly incubated eggs, the latter within a hundred yards of where a female and three eggs were taken in 1897, near Beulah. Mr. C. E. Aiken reports two more specimens from Colorado Springs; one of these, taken on Fountain Creek, is the first summer specimen for the plains. There is one in the Carter collection, taken at Breckenridge, October 4, 1894. These make twenty-three records for Colorado and ten instances of nesting.

Page 80. 375b. **Bubo virginianus arcticus.** ARCTIC HORNED OWL.

Mr. Aiken reports a fine specimen killed near Colorado Springs, November 28, 1898. Another one said to have been seen. These notes of course refer to the lighter mountain form.

Up to the time of the issue of this bulletin, the A. O. U. has come to no conclusion in regard to what name shall be applied to this variety.

Horned Owls are common at Breckenridge, but in Mr. Carter's quite extensive series there are none of the lighter form.

Page 80. 376. **Nyctea nyctea.** SNOWY OWL.

Has been reported to Mr. Carter as taken near Breckenridge. The most southern record to date in Colorado is one known by Mr. Baker to have been seen in the Wet Mountain valley.

Page 81. 378. **Speotyto cunicularia hypogæa.** BURROWING OWL.

One in the Carter collection, taken in Middle Park.

Page 81. 379. **Glaucidium gnoma.** PYGMY OWL.

Mr. Carter reports it as breeding at Breckenridge.

Page 81. 385. **Geococcyx californianus.** ROAD-RUNNER.

There is one in the Carter collection that was taken on the Arkansas above Canon City. Mr. Carter saw one several years ago near Littleton, which is the most northern record for the State.

Page 82. 387a. **Coccyzus americanus occidentalis.** CALIFORNIA CUCKOO.

Taken by Mr. Carter in Middle Park.

Page 82. 390. **Ceryle alcyon.** BELTED KINGFISHER,

Mr. L. B. Gilmore records one that wintered in 1897-8 near the outlet of Sweetwater Lake, at about 8,000 feet.

Breeds at Breckenridge.

Page 82. 393e. **Dryobates villosus monticola.** ROCKY MOUNTAIN HAIRY WOODPECKER.

This the present name given to the common form that occurs in Colorado. Breeds at Breckenridge.

Page 82. 394c. **Dryobates pubescens medianus.** DOWNY WOODPECKER.

If the eastern form really occurs in Colorado, it would be of this subspecies.

Page 83. 394b. **Dryobates pubescens homorus.** BATCHELDER'S WOODPECKER.

Page 83. 401b. **Picoides americanus dorsalis.** ALPINE THREE-TOED WOODPECKER.

Page 83. 402a. **Sphyrapicus varius nuchalis.** RED-NAPED SAPSUCKER.

Page 84. 404. **Sphyrapicus thyroides.** WILLIAMSON'S SAPSUCKER.

The last four species are all represented in Mr. Carter's collection, and have been taken by him as breeders at Breckenridge.

Page 84. 405a. **Ceophlæus pileatus abieticola.** NORTHERN PILEATED WOODPECKER.

This becomes now the name of the Colorado bird.

Page 84. 406. **Melanerpes erythrocephalus.** RED HEADED WOODPECKER.

Taken at Breckenridge by Mr. Carter, but not known to breed there.

Page 84. 408. **Melanerpes torquatus.** LEWIS'S WOODPECKER.

The statement of breeding for this species is a misprint. It should be: Breeds late in May. In calling attention to the error, Mr. Walter Blanchard of Boulder, writes that the earliest eggs he has known at Boulder were May 10, and the latest, June 14. Mr. Carter has seen the birds at Breckenridge, but does not know of their nesting there.

Page 84. 409. **Melanerpes carolinus.** RED-BELLIED WOODPECKER.

One was taken by Mr. C. E. Aiken near Limon in May, 1899.

Page 85. 412a. **Colaptes auratus luteus.** NORTHERN FLICKER.

It is probable that the Colorado bird should be referred to this form.

Page 85. 413. **Colaptes cafer.** RED SHAFTED FLICKER.

Breeds at Breckenridge.

Page 85. 418. **Phalænoptilus nuttallii.** POOR-WILL.

Mr. Carter reports their breeding in Middle Park.

Page 85. 420a. **Chordeiles virginianus henryi.** WESTERN NIGHTHAWK.

Page 86. 425. **Aeronautes melanoleucus.** WHITE-THROATED SWIFT.

Both these last two breed at Breckenridge.

Page 86. 429. **Trochilus alexandri.** BLACK-CHINNED HUMMINGBIRD.

Mr. Wm. Cross took a fine male at Glenwood Springs in 1898. This is the most northeasterly record to date.

Page 86. 432. **Selasphorus platycercus.** BROAD-TAILED HUMMINGBIRD.

Breeds at Breckenridge.

Page 86. 433. **Selasphorus rufus.** RUFIOUS HUMMINGBIRD.

One was taken by Mr. Carter at Breckenridge, and it probably breeds there, though he has never found its nest.

Page 87. 436. **Stellula calliope.** CALLIOPE HUMMINGBIRD.

One of the most surprising specimens in Mr. Carter's collection is a fine Calliope Hummer taken near Breckenridge, June

30, 1882, at an altitude of about 9,500 feet. This is the second record for Colorado.

Page 87. 444. **Tyrannus tyrannus.** KINGBIRD.

Breeds in Middle Park, according to Mr. Carter.

Page 87. 447. **Tyrannus verticalis.** ARKANSAS KINGBIRD.

Mr. Carter has seen them at Breckenridge in migration, and knows of their breeding in Middle Park.

Page 87. 448. **Tyrannus vociferans.** CASSIN'S KINGBIRD.

Occurs in migration at Breckenridge and breeds only a little lower, nearly to 9,000 feet.

Page 87. 454. **Myiarchus cinerascens.** ASH-THROATED FLYCATCHER.

The known northeastern range of this bird has been considerably extended by a specimen in the Bond collection, taken at Cheyenne, Wyoming, June 6, 1896.

Page 88. 457. **Sayornis saya.** SAY'S PHOEBE.

Mr. Carter has taken it at Breckenridge, but does not know of its breeding there.

Page 88. 459. **Contopus borealis.** OLIVE SIDED FLYCATCHER.

Page 88. 462. **Contopus richardsonii.** WESTERN WOOD PEWEE.

Page 88. 464. **Empidonax difficilis.** WESTERN FLYCATCHER.

Page 88. 466. **Empidonax traillii.** TRAILL'S FLYCATCHER.

Of these four, the first three breed at Breckenridge, while the last occurs there in migration, but has not been noted breeding.

Page 89. 468. **Empidonax hammondi.** HAMMOND'S FLYCATCHER.

Known by Mr. Carter to breed as high as Dillon at 9,000 feet.

Page 89. 469. **Empidonax wrightii.** WRIGHT'S FLYCATCHER.

Occurs at Breckenridge in migration, but not known by Mr. Carter to breed there.

Page 89. 474c. **Otocoris alpestris arenicola.** DESERT HORNED LARK.

During February, 1899, Colorado experienced the most severe weather on record. Along the foothills from Fort Collins

to Colorado Springs the mercury fell to thirty below zero F. or lower. For two weeks or more, countless thousands of the Horned Larks flocked into the towns in search of food, and many thousands died of cold and hunger. Around the flour mills and elevators they came in clouds. Many persons made special provision for feeding them, one man giving them more than three thousand pounds of grain. Mr. Carter ascribes to this form the birds that breed at Breckenridge.

Page 89. 475. **Pica pica hudsonica.** AMERICAN MAGPIE.

Mr. Carter found them at Breckenridge breeding almost to timber line, at 10,500 feet.

Page 90. 478b. **Cyanocitta stelleri macrolopha.** LONG-CRESTED JAY.

At Boulder, Mr. Blanchard has taken the earliest sets of eggs May 11, 1896, May 15, 1897, and May 10, 1898.

Mr. Carter notes their breeding at Breckenridge.

Page 90. 484a. **Perisoreus canadensis capitalis.** ROCKY MOUNTAIN JAY.

Page 91. 486. **Corvus corax sinuatus.** AMERICAN RAVEN.

Both breed at Breckenridge.

Page 91. 487. **Corvus cryptoleucus.** WHITE-NECKED RAVEN.

There is one in the Carter collection, taken at Dillon in the fall of 1872. At that time they were quite common, Mr. Carter says, but have since disappeared.

One was seen by Mr. A. D. Baker in the Wet Mountain valley a few years ago. Mr. C. E. Aiken learned at Limon, out on the plains east of Colorado Springs, that one was seen there about ten years ago.

Page 92. 488. **Corvus americanus.** AMERICAN CROW.

Has been taken by Mr. Carter at Breckenridge, but is not known to breed there. Usually seen singly.

Page 92. 491. **Nucifraga columbiana.** CLARKE'S NUT-CRACKER.

Breeds at Breckenridge.

Page 93. 492. **Cyanocephalus cyanocephalus.** PINON JAY.

Mr. Carter has seen them at Breckenridge in the fall, but during the summer season has not found them there or in either Middle or South Park.

Page 93. 494. **Dolichonyx oryzivorus.** BOBOLINK.

To the few records of this bird in Colorado Mr. Carter now adds two more. One was taken in Middle Park May 20, 1884, at 7,000 feet, and one taken in South Park May 21, 1876, at about 8,000 feet. These are farther west and at a higher altitude than any previous Colorado records. Mr. C. E. Aiken saw a female at Limon in May, 1899.

Page 93. 495. **Molothrus ater.** COWBIRD.

Page 93. 497. **Xanthocephalus xanthocephalus.** YELLOW-HEADED BLACKBIRD.

Page 94. 498. **Agelaius phœniceus.** RED-WINGED BLACKBIRD.

All three of these Blackbirds have been found by Mr. Carter breeding in Middle and South Parks, and all have been taken at Breckenridge, but only in migration.

Page 94. 501b. **Sturnella magna neglecta.** WESTERN MEADOWLARK.

Breeds at Breckenridge.

Page 95. 508. **Icterus bullocki.** BULLOCK'S ORIOLE.

Seen by Mr. Carter in Middle Park, but contrary to what would be expected, he has never seen it at Breckenridge.

Page 95. 510. **Scolecophagus cyanocephalus.** BREWER'S BLACKBIRD.

Breeds at Breckenridge.

Page 95. 514a. **Coccothraustes vespertinus montanus.** WESTERN EVENING GROSBIRD.

The record is now complete for Colorado for every month in the year. They had been seen in the State from the first week in August until late in May. On June 19, 1898, Mr. C. E. Aiken found a flock of twenty-five to thirty birds in the foothills near Colorado Springs. He killed five males. The testicles of each were the size of a bean, and it was evident that the birds were breeding in the mountains and had come down to feed on the insect larvæ that were ravaging the young oak leaves. The year is completed by the record of Mr. L. A. Test of the Agricultural College at Fort Collins, who on July 22, 1899, and again the next day, in Estes Park, saw a party of eight, apparently three old birds and five young ones. Mr. P. L. Jones of Beulah reports that during May and June, 1898, these birds were constantly around his premises. Late in June he saw a flock of seventeen,

composed of male and female and some birds which seemed to be young-of-the-year, but were not captured for certain identification.

On the strength of these records this species will be classed as resident in Colorado.

Page 96. 515a. **Pinicola enucleator montana.** ROCKY MOUNTAIN PINE GROSBEAK.

Breeds at Breckenridge.

Page 96. 518. **Carpodacus cassini.** CASSIN'S PURPLE FINCH.

An abundant breeder at Breckenridge. Mr. Carter once found a male in immature plumage breeding with a mature female.

Page 97. 521a. **Loxia curvirostra stricklandi.** MEXICAN CROSSBILL.

A female or young-of-the-year male was seen by the present writer at Lamar, July 15, 1898. It seemed in perfect health and was probably an accidental wanderer who found himself here on the plains, one hundred and fifty miles east of the foothills. Breeds at Breckenridge.

Page 97. 524. **Leucosticte tephrocotis.** GRAY-CROWNED LEUCOSTICTE.

Page 98. 524a. **Leucosticte tephrocotis littoralis.** HEPBURN'S LEUCOSTICTE.

Page 98. 526. **Leucosticte australis.** BROWN-CAPPED LEUCOSTICTE.

Page 98. 528. **Acanthis linaria.** REDPOLL.

All four of these species have been taken in migration at Breckenridge by Mr. Carter, while the Brown-capped Leucosticte is an abundant breeder on the mountain tops above Breckenridge.

Page 98. 229. **Astragalinus tristis.** AMERICAN GOLDFINCH

Mr. Carter considers this a rare bird at Breckenridge, where he has seen it only in migration.

Page 99. Add. 529a. **Astragalinus tristis pallidus.** WESTERN GOLDFINCH.

Migratory; probably common. It is undoubtedly a summer resident, but until this fact is definitely ascertained it will be classed among the migrants according to the present record. Added to Colorado birds by Mr. C. E. Aiken, who writes:

"This paler Western Goldfinch occurs in Colorado as well as the typical eastern form to which all have heretofore been referred. I am not able at present to define their relative range or abundance with certainty. *Pallidus* is an early spring migrant along the eastern base of the mountains, and quite likely may be the alpine breeder. *Tristis* probably is a summer visitor from the southeast, occupying the plains to the base of the mountains. I have obtained both forms at Colorado Springs, and *tristis* one hundred miles eastward. Examples of both forms, which I recently sent to the American Museum of Natural History, have been kindly identified by Mr. Chapman with the concurrence of Dr. Allen."

Page 99. 530. **Astragalinus psaltria.** ARKANSAS GOLDFINCH.

Mr. Wm. Cross found this form breeding at Glenwood Springs during the summer of 1898. Mr. Aiken saw a very early flock at Colorado Springs May 13, 1898.

Page 99. 530a. **Astragalinus psaltria arizonæ.** ARIZONA GOLDFINCH.

Found by Mr. Wm. Cross breeding at Glenwood Springs during the summer of 1898. This is the most northwestern record in Colorado.

Page 99. Add. 530b. **Astragalinus psaltria mexicanus.** MEXICAN GOLDFINCH.

One taken by Mr. A. T. Allen in Denver and identified by Prof. J. A. Allen. There is also one in Mr. C. E. Aiken's collection taken near Colorado Springs. Near Trinidad, in June, 1898, the present writer is very sure that he saw two of them, though he failed to secure either of them. The species is entered as seen in summer but not known to breed. This is according to the present record, but it is with the belief that the species occurs at Trinidad as a regular summer resident.

Page 99. 533. **Spinus pinus.** PINE SISKIN.

One of the few nests ever found on the plains is the one taken by Mr. F. M. Dille in the outskirts of Denver during the summer of 1898. Mr. Carter has taken it at Breckenridge.

Page 99. 000. **Passer domesticus.** EUROPEAN HOUSE SPARROW.

Miss Myra Eggleston reports that they reached Grand Junction during the fall of 1899, a flock of a dozen being seen. This is the first record for Colorado west of the range, and there

is nothing to indicate whether these birds reached Grand Junction from eastern Colorado or have come eastward from Utah. The distance is less from where they occur in Utah, and the mountain passes much lower.

Page 100. 534. **Passerina nivalis.** SNOWFLAKE.

Mr. Carter took one December 28, 1894, between Breckenridge and Middle Park at about 8,000 feet.

Page 100. 536a. **Calcaarius lapponicus alascensis.** ALASKAN LONGSPUR.

This is the new name for the form of the Lapland Longspur that occurs in Colorado. It was seen but once by Mr. Carter at Breckenridge, where he took one, March 21, 1894, in the midst of a snowstorm. One has been seen by Mr. Baker in the Wet Mountain valley at over 8,000 feet.

Page 101. 540a. **Poœcetes gramineus confinis.** WESTERN VESPER SPARROW.

Page 101. 542b. **Ammodramus sandwichensis alaudinus.** WESTERN SAVANNA SPARROW.

Both breed at Breckenridge.

Page 102. Add. 548. **Ammodramus leconteii.** LECONTE'S SPARROW.

The rarest find in the Carter collection is a specimen of this Sparrow, taken at Breckenridge October 24, 1886. This is the first record for Colorado, and its occurrence in the mountains three hundred miles west of its usual prairie home is of course accidental. This is the only record in the United States west of the main range, except the one noted by Merrill, *Auk*, *XV*. 1898, *p. 16*, taken in Idaho. Though Merrill's bird was reported first, Carter's was taken many years the earlier.

Page 102. 552a. **Chondestes grammacus strigatus.** WESTERN LARK SPARROW.

Breeds at Breckenridge.

Page 102. 553. **Zonotrichia querula.** HARRIS'S SPARROW.

The second record for Colorado of this bird is the one seen by the present writer at Holly, May 10, 1898. It was migrating in company with White-crowned Sparrows.

Page 102. 554. **Zonotrichia leucophrys.** WHITE-CROWNED SPARROW.

Breeds at Breckenridge.

Page 103. 559a. **Spizella monticola ochracea.** WESTERN TREE SPARROW.

Occurs at Breckenridge in migration.

Page 103. 560a. **Spizella socialis arizonæ.** WESTERN CHIPPING SPARROW.

Breeds at Breckenridge.

Page 104. Add. [563a. **Spizella pusilla arenacea.** WESTERN FIELD SPARROW.

"Great Plains, from Texas to Montana and Dakota."—(A. O. U.) A common summer resident of Kansas and Nebraska. Undoubtedly occurs on the plains of extreme eastern Colorado, but has not yet been reported.]

Page 104. 566. **Junco aikeni.** WHITE-WINGED JUNCO.

Page 105. 567b. **Junco hyemalis connectens.** SHUFELDT'S JUNCO.

Both taken at Breckenridge in migration.

Page 105. Add. 567.1. **Junco montanus.** MONTANA JUNCO.

This new form was recently described by Mr. Ridgway, who writes: "In our somewhat extensive series of *Junco montanus*, I find only one specimen from Colorado. This is a female, No. 109,943, U. S. N. M., collected at Pueblo, October 29, 1886, by C. W. Beckham. There are several examples from New Mexico and Arizona; all fall and winter birds." Mr. C. E. Aiken took this form at Ramah in February, 1899. He also has several specimens in his collection taken March 2, March 27 and October 25. The species therefore stands in the Colorado list as: Winter visitant, not uncommon; arrives the last of October and remains until late in March.

Page 105. 569. **Junco caniceps.** GRAY-HEADED JUNCO.

Breeds abundantly at Breckenridge, and in 1898 one nested under the eaves of Mr. Carter's house. A very late record for the plains was one taken by Mr. C. E. Aiken at Limon on May 25, 1899.

Page 106. 573a. **Amphispiza bilineata deserticola.** DESERT SPARROW.

This is the name now given to the bird that was formerly entered as the Black-throated Sparrow. Mr. P. L. Jones reports finding a nest with young near Canon City in 1888. This is the only time he saw the bird there in five years' residence.

Page 106. Add. [578. **Peucæa cassini.** CASSIN'S SPARROW.

"Central and western Kansas, southward and westward through Texas, New Mexico, Arizona and southern Nevada."—(A. O. U.) It would be difficult

to have any bird a rather common summer resident over the western half of Kansas, also common in New Mexico at the same season, and not have it occur in southeastern Colorado. But up to the present time no one has found it in this State.]

Page 107. 581b. **Melospiza fasciata montana.** MOUNTAIN SONG SPARROW.

Mr. Carter has taken it at Breckenridge only in migration. On the Blue river, at 7,500 feet, he took the nest and eggs July 5, 1877. He has never known it to nest above 8,000 feet.

Page 107. 583. **Melospiza lincolni.** LINCOLN'S SPARROW.
Breeds at Breckenridge.

Page 107. 585c. **Passerella iliaca schistacea.** SLATE-COLORED SPARROW.

A mounted specimen in Mr. Carter's collection was taken near the mouth of the Blue river in Grand county, July 5, 1877, at nearly 7,000 feet. This is one more summer record for Colorado, and the highest altitude at which it has yet been reported.

Page 108. 588a. **Pipilo maculatus megalonyx.** SPURRED TOWHEE.

Mr. Blanchard has found some eggs at Boulder as early as May 10. Mr. Carter has found it breeding nearly to Breckenridge.

Page 108. 592.1. **Oreospiza chlorura.** GREEN-TAILED TOWHEE.

This is the new number given to this species, hence it should come just after Abert's Towhee.

Mr. Carter has found it breeding as far up as Dillon, at 9,000 feet.

Page 108. 596. **Zamelodia melanocephala.** BLACK-HEADED GROSBEAK.

Found by Mr. Carter breeding in Middle Park and on the Blue river up to 8,500 feet.

Page 109. 597a. **Guiraca cærulea lazula.** WESTERN BLUE GROSBEAK.

Page 109. 598. **Cyanospiza cyanea.** INDIGO BUNTING.

Mr. Wm. Link saw several at Fort Collins about the middle of May, 1900. One was taken and is now mounted. They stayed round the premises for several days, and Mr. Link thought he saw three of them again in his yard May 30. This is the third record for Colorado.

Page 109. 599. **Cyanospiza amœna.** LAZULI BUNTING.

Mr. Carter has not found it breeding higher than Middle Park.

Page 109. 604. **Spiza americana.** DICKCISSEL.

Mr. P. L. Jones of Beulah, reports finding the nest and eggs at Canon City in 1890. He saw the birds there during several years.

Page 109. 605. **Calamospiza melanocorys.** LARK BUNTING.

Found by Mr. Carter breeding at Dillon at 9,000 feet.

Page 110. 607. **Piranga ludoviciana.** LOUISIANA TANAGER.

Breeds at Breckenridge.

Page 110. 608. **Piranga erythromelas.** SCARLET TANAGER.

One was reported to Mr. C. E. Aiken as seen at Limon in May, 1899.

Page 110. 611. **Progne subis.** PURPLE MARTIN.

Miss Myra Eggleston writes that Purple Martins are common at Grand Junction, but do not breed in town, preferring the banks of the river not far distant.

Page 110. 612. **Petrochelidon lunifrons.** CLIFF SWALLOW.

Page 111. 613. **Hirundo erythrogaster.** BARN SWALLOW.

Page 111. 614. **Tachycineta bicolor.** TREE SWALLOW.

Page 111. 615. **Tachycineta thalassina.** VIOLET-GREEN SWALLOW.

All these four breed in the mountains, though Mr. Carter has never seen the Tree Swallow breeding quite as high as Breckenridge, where the others are common.

Page 111. 618. **Ampelis garrulus.** BOHEMIAN WAXWING.

Seen at Breckenridge in winter.

Page 112. 621. **Lanius borealis.** NORTHERN SHRIKE.

Page 112. 622a. **Lanius ludovicianus excubitorides.** WHITE-RUMPED SHRIKE.

Both of these have been taken by Mr. Carter, either at or near Breckenridge.

Page 112. 624. **Vireo olivaceus.** RED-EYED VIREO.

The Bond collection at Cheyenne, Wyoming, contains a specimen taken there May 26, 1889, and Rev. F. N. White saw one there May 20, 1899.

Page 112. 627. **Vireo gilvus.** WARBLING VIREO.

Page 112. 629b. **Vireo solitarius plumbeus.** PLUMBEOUS VIREO.

Both these species breed at Breckenridge.

Page 112. Add. [630. **Vireo atricapillus.** BLACK-CAPPED VIREO.

"Central and western Texas, from the Rio Grande north to southwestern Kansas."—(A. O. U.) Should be found along the Cimarron river in southeastern Colorado.]

Page 112. Add. [631. **Vireo noveboracensis.** WHITE-EYED VIREO.

"Eastern United States, west to the Rocky Mountains."—(A. O. U.) This should include Colorado, but there is no record known to the present writer from this State.]

Page 112. Add. [633. **Vireo bellii.** BELL'S VIREO.

"Upper Mississippi valley and Great Plains."—(A. O. U.) "From Illinois and Minnesota west to the eastern base of the Rocky Mountains."—(Goss.) "Inhabits the middle parts of the United States, from Illinois and Minnesota west to the foothills."—(Lantz.)

One would suppose from these statements that it was not uncommon in Colorado, and possibly it is not, but there is no record for it here up to the present time.]

Page 113. 644. **Helminthophila virginiaë.** VIRGINIA'S WARBLER.

Taken by Mr. Carter in both Middle and South Parks, where it breeds. Also taken by Mr. C. E. Aiken in May, 1899, at Limon, far out on the plains.

Page 113. 647. **Helminthophila peregrina.** TENNESSEE WARBLER.

There is one in the Bond collection, taken at Cheyenne, Wyoming, May 24, 1888.

One was taken by Mr. C. E. Aiken near Limon in May, 1899.

Page 114. 648. **Compsothlypis americana.** PARULA WARBLER.

The known northern range of this species is extended nearly two hundred miles by a specimen taken at Cheyenne, Wyoming, May 30, 1888, and now in the Bond collection.

Page 114. 652. **Dendroica æstira.** YELLOW WARBLER.

Breeds in Middle Park and at Breckenridge.

Page 115. 656. **Dendroica auduboni.** AUDUBON'S WARBLER.
Breeds at Breckenridge.

Page 115. 661. **Dendroica striata.** BLACK-POLL WARBLER.
There is a specimen taken by Mr. Bond at Cheyenne, Wyoming, May 11, 1888, and Rev. F. N. White saw one there May 15, 1899.

Page 116. 668. **Dendroica townsendi.** TOWNSEND'S WARBLER.
A young male was taken at Cheyenne, Wyoming, and is now in the Bond collection.

Page 116. 674. **Seiurus aurocapillus.** OVEN-BIRD.
On June 5, 1898, Mr. C. E. Aiken shot at Ramah a female with ovaries so extended that there seemed no doubt of its breeding. On the strength of this record the bird is included among the Colorado breeders.

Page 116. 675a. **Seiurus noveboracensis notabilis.** GRINNELL'S WATER-THRUSH.
One in the Bond collection at Cheyenne, Wyoming.

Page 116. Add. 678. **Geothlypis agilis.** CONNECTICUT WARBLER.
Migratory; rare or accidental. The first and only record for Colorado is the one taken by Mr. C. E. Aiken, who writes:
"On May 24, 1899, I shot a male in a clump of willows bordering a water hole at Lake, Lincoln county, about one hundred miles northeast of Colorado Springs. This unexpected capture adds an interesting eastern bird to the fauna of Colorado, and extends the known range of the species several hundred miles to the westward."

Page 116. 680. **Geothlypis tolmiei.** MACGILLIVRAY'S WARBLER.
Breeds in Middle Park, according to Mr. Carter.

Page 117. Add. 681. **Geothlypis trichas.** MARYLAND YELLOW-THROAT.
One taken by Mr. C. E. Aiken at Colorado Springs, May 31, 1898, and identified by Mr. Ridgway. This is the eastern form, rarely coming west to the plains.

Page 117. 681a. **Geothlypis trichas occidentalis.** WESTERN YELLOW-THROAT.

One was seen May 8, 1898, by Mr. L. B. Gilmore at Sweet-water Lake at 8,000 feet.

Mr. Carter has found it breeding at Dillon at 9,000 feet.

Page 117. 685. **Wilsonia pusilla.** WILSON'S WARBLER.

Page 117. 685a. **Wilsonia pusilla pileolata.** PILEOLATED WARBLER.

Its occurrence in Colorado will now be changed to: Summer resident; not uncommon.

There is in the Carter collection a specimen, quite typical, that was taken with nest and eggs at the eastern side of South Park, July 3, 1878. Mr. C. E. Aiken believes that this form is fully as common in Colorado as the eastern *pusilla*.

Page 118. Add. 686. **Wilsonia canadensis.** CANADIAN WARBLER.

Migratory; rare or accidental. Added to the Colorado list by Mr. C. E. Aiken in the following note:

"The range of this species is extended westward nearly to the Rocky Mountain range by my capture of a male at Lake, Lincoln county, May 23, 1899.

Page 118. 678. **Setophaga ruticilla.** AMERICAN REDSTART.

Breeds in Middle Park. The foregoing records show that of the twenty-nine Warblers known to occur in Colorado, but three have been taken breeding at Breckenridge by Mr. Carter, showing how few of these birds go up into the high mountains.

There are twenty-five Warblers given in the last edition of the A. O. U. Check List whose range is said to be "Eastern United States" or "Eastern United States to the Plains," thus not including Colorado in their habitat. These have all been taken in Kansas, and eleven of them have been found in Colorado. Since these eleven include several that would have been considered as little likely as any to be found in this State, we may expect that sooner or later most of the other fourteen will be noted in Colorado. Those not yet found here are *Protonotaria citrea*, *Helmitherus vermivorus*, *Helminthophila pinus*, *Helminthophila ruficapilla*, *Dendroica pensylvanica*, *Dendroica blackburnia*, *Dendroica dominica albilora*, *Dendroica virens*, *Dendroica vigorsii*, *Dendroica discolor*, *Seiurus motacilla*, *Geothlypis formosa*, *Geothlypis philadelphia*, and *Wilsonia mitrata*.

Page 118. Add. [700. **Anthus spragueii**. SPRAGUE'S PIPIT.

It seems strange that there is no record of this bird for Colorado, when there are three specimens in the Bond collection, taken at Cheyenne, Wyoming, April 24, 1888, and it was undoubtedly seen there by Rev. F. N. White, April 29, 1899. It is unreasonable not to suppose that these birds crossed Colorado to reach Cheyenne. Moreover they are said to be: "Rare in eastern Kansas, common in the western part of the State."—(Lantz.) It is practically certain then that they occur in eastern Colorado, and that before long some one will find them there.]

Page 118. 701. **Cinclus mexicanus**. AMERICAN DIPPER.

Mr. Blanchard has taken nests on Boulder Creek four miles above Boulder at about 5,500. Two sets were taken, May 6 and May 12, 1898. All the sets he ever found in that locality were between May 1 and May 15. It is thus evident that these birds at the lower altitude nested earlier than is customary at the usual altitude.

Mr. Carter found the Dipper breeding at Breckenridge.

Page 119. 702. **Oroscoptes montanus**. SAGE THRASHER.

Mr. Carter has found them at Dillon at 9,000 feet, but does not know of their breeding higher than Middle Park.

Page 119. 703. **Mimus polyglottos**. MOCKINGBIRD.

The present writer saw two at the San Luis Lakes and one at La Jara on June 17 and 18, 1898. Mr. D. E. Newcomb of La Jara says that some years he sees them several times; other years they are absent. Miss Myra Eggleston reports them as breeding at Grand Junction. This completes the record for the whole southern half of Colorado, from Kansas to Utah.

There is one in the Carter collection, taken at Breckenridge August 12, 1891. This is 1,500 feet higher than any previous record, and was undoubtedly a wanderer.

Page 119. 704. **Galeoscoptes carolinensis**. CATBIRD.

The date of nesting should read the latter part of May, instead of June.

Mr. Carter reports it as a rare breeder in Middle Park.

Page 120. 715. **Salpinctes obsoletus**. ROCK WREN.

Breeds at Breckenridge.

Page 120. 719b. **Thryomanes bewickii leucogaster**. BAIRD'S WREN.

Page 120. 721b. **Troglodytes aedon aztecus**. WESTERN HOUSE WREN.

Breeds at Breckenridge.

Page 121. 722. **Anorthura hiemalis.** WINTER WREN.

One taken by Dr. W. H. Bergtold in Denver, July 8, 1896. This is the lowest summer record.

Page 121. Add. [724. **Cistothorus stellaris.** SHORT-BILLED MARSH WREN.

One in the Bond collection, taken at Cheyenne, Wyoming, April 14, 1889.]

Page 121. 725c. **Cistothorus palustris plesius.** WESTERN MARSH WREN.

Known by Mr. Carter to breed in South Park.

Page 121. 726b. **Certhia familiaris montana.** ROCKY MOUNTAIN CREEPER.

Page 122. 727a. **Sitta carolinensis aculeata.** SLENDER-BILLED NUTHATCH.

Page 122. 728. **Sitta canadensis.** RED-BREASTED NUTHATCH.

Page 122. 730. **Sitta pygmæa.** PYGMY NUTHATCH.

Page 122. 735a. **Parus atricapillus septentrionalis.** LONG-TAILED CHICKADEE.

Page 123. 738. **Parus gambeli.** MOUNTAIN CHICKADEE.

These last six species are all common birds of the mountains and have all been taken by Mr. Carter at Breckenridge. The present writer found the Mountain Chickadee common and evidently breeding at Trinidad, June 15, 1898. This is only 6,000 feet, much lower than this species usually nests.

Page 123. 744. **Psaltriparus plumbeus.** LEAD-COLORED BUSH-TIT.

During the summer of 1897 Capt. D. P. Ingraham took three sets of eggs near Beulah. Mr. C. E. Aiken has seen them occasionally in large flocks in winter in the foothills northeast of Canon City. He took a nest and five fresh eggs there May 9, 1876. Mr. Wm. Cross took the nest and six eggs at Glenwood Springs during the summer of 1898.

Page 123. 749. **Regulus calendula.** RUBY-CROWNED KINGLET.

A nest and seven eggs have been presented to the State Historical and Natural History Society of Denver, that were taken by Mr. Evan Lewis at Boswell, near Twin Lakes, June 12, 1898, at an elevation of 11,000 feet.

The lowest Mr. Carter has ever known of their nesting was at 7,000 feet, in Middle Park.

Page 124. 754. **Myadestes townsendii.** TOWNSEND'S SOLI-TAIRE.

Breeds above timber line near Breckenridge.

Page 124. 756a. **Hylocichla fuscescens salicicola.** WILLOW THRUSH.

Page 124. 758a. **Hylocichla ustulata swainsoni.** OLIVE-BACKED THRUSH.

Page 125. 759. **Hylocichla aonalaschkæ.** DWARF HERMIT THRUSH.

One taken by Mr. C. E. Aiken during the season of 1898, and three during the spring of 1899.

Page 125. 759a. **Hylocichla aonalaschkæ auduboni.** AUDUBON'S HERMIT THRUSH.

Breeds at Breckenridge.

Page 125. 759b. **Hylocichla aonalaschkæ pallasii.** HERMIT THRUSH.

Page 126. 761a. **Merula migratoria propinqua.** WESTERN ROBIN.

Breeds at Breckenridge.

Page 126. 766. **Sialia sialis.** BLUEBIRD.

Mr. Bond says that the Eastern Bluebird is a regular summer visitant to the City Park in Cheyenne, Wyoming.

Page 126. 767a. **Sialia mexicana bairdi.** CHESTNUT-BACKED BLUEBIRD.

Mr. Carter has found it breeding in South Park, but never as high as Breckenridge.

Page 126. 768. **Sialia arctica.** MOUNTAIN BLUEBIRD.

Breeds at Breckenridge.

Page 148. *B. Species that breed on the plains.* Omit

Helminthophila peregrina.

Page 149. 7. **Migrants.** Omit

Helminthophila peregrina.

Page 155. 8. **Gavia adamsii.** YELLOW-BILLED LOON.

Page 156. 160. **Somateria dresseri.** AMERICAN EIDER.

Further research has shown that the specimen mentioned at the capitol at Denver was taken outside of Colorado.

Page 162. 418a. **Phalænoptilus nuttallii nitidus.** FROSTED POOR-WILL.

The two specimens taken by Mr. Aiken have been later identified as true *nuttallii*.

Page 167. 595. **Zamelodia ludoviciana.** ROSE-BREADED GROSBILL.

Page 168. 647. **Helminthophila peregrina.** TENNESSEE WARBLER.

This is now withdrawn from the list of Colorado breeders since Mr. Aiken has satisfied himself that the record is a mis-identification for Virginia's Warbler.

ADDENDUM.

While the last pages of this bulletin are passing through the press, the *Auk* for July, 1900, is received, necessitating the following addition:

Page 186. Add. Aiken, C. E. Seven New Birds for Colorado. *Auk*, XVII. 1900, p. 298.

Adds to the Colorado list, *Gavia arctica*, *Ardea egretta*, *Syrnium nebulosum*, *Astragalinus tristis pallidus*, *Geothlypis agilis*, *Geothlypis trichas*, *Wilsonia canadensis*.

The records of these birds for Colorado have been given in this bulletin, but since the article in the *Auk* was published first, it becomes the first record of these birds for Colorado, instead of this bulletin.

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