FIELD NOTES ON THE BIRDS OF SAN JUAN COUNTY, COLORADO.

BY FRANK M, DREW.

In the southwestern portion of Colorado, and lying wholly within the Rio Colorado basin, is the little county of San Juan. With the exception of Baker's Park and tributary gulches, San Juan is composed of mountain peaks, fully one-third of the county being above timber-line. (For a good description of the Park and adjacent country, see F. B. Rhoda's account in Hayden's Report for 1874.) The average elevation of the Park is 9,500 feet; the lowest part of the county is at the extreme southern end, in the Animas Cañon. Here it is about 8,500 feet, and for a short distance up this narrow gorge runs a tongue of vegetation entirely different from the characteristic flora of San Juan. This different growth is composed of pines, poplars, and scrub oak and maple bushes. The flora of the county is essentially western and boreal.

The peaks are the homes of such sub-arctic mammals as Lagomys princeps, Arctomys flaviventer, Lepus americanus bairdi, all in great abundance, as well as Erethizon epixanthus, Ovis montana, Felis concolor, Neotoma cinerea, and others. But one reptile—a snake—was seen; neither batrachians nor fishes were found. Owing to the peculiar topographical position of the county, the list becomes of a little more interest than a mere faunal paper, as it is composed of those birds which range to, or above 10,000 feet. My observations extend from June, 1879 to January, 1881. The nomenclature is, in the main, that of Dr. Coues; that is, in so far as I have been able to keep up with recent revisions.

I. Turdus migratorius propinquus, Ridg. Western Robin.—
Very common; breeds, the nest being placed indifferently two feet from the ground in bushes, or twenty-five feet up in trees. One nest which I found was curiously placed in some willow bushes in much the same manner as the nest of a Red-winged Blackbird, being supported entirely by the sides. How the bird made a start is a puzzle to me. If climatic changes have caused such a marked hoariness—a bleached color—in Parus atricapillus septentrionalis, why has climatic variation bleached the white out of the robin's tail and left it nearly or quite black? The birds are found here from April until the last of November and occasionally rear two broods.

2. Turdus aonalaschkæ auduboni, Ridg. Audubon's Thrush.—Common; breeds. In June its clear, sweet notes can be heard from nearly every dark glen or secluded part of the woods. I found a nest with three eggs in the latter part of June. The nest was placed in a spruce bush about three feet from the ground. Not noticed after Sept. 13.

3. Myiadestes townsendi, Cab. Townsend's Solitaire.—Rather common, and breeds. A nest taken by Mr. T. M. Trippe, July 9, at an elevation of 10,500 feet, was placed in a little cranny in a bank, and contained four eggs in which incubation had just begun. In fall the Solitaire comes out of the woods and can be found around houses, or in low bushes near water. They seem to prefer a low perch to an elevated one, as I have often seen them leave the latter for the former. I have never seen more than four together. A quartette, probably young birds, which I saw one rainy day in October, kept up a low soliloquy which sounded much like the noise a Robin makes when talking to himself. One of them essayed a song and succeeded in producing a warble somewhat like a Robin's song. Of their love song I have only heard fragments, but sweet ones.

4. Oroscoptes montanus, Baird. Mountain Mocking Bird.—Rare. Appears in May and lingers until October. It seems just a trifle out of place up here, and clings closely to the few dry bushy hillsides and sandbanks.

5. Sialia arctica, Sw. Arctic Bluebird. — Abundant from April to December. The only peculiarity I have noticed in the bird, is an occasional low chuck — exactly like that of a Blackbird — from the female when the nest is approached. Very wary and much on the ground.

6. Cinclus mexicanus, Sw. AMERICAN DIPPER. - Abundant; resident; breeds. The Dipper is my prime favorite; always cheery and confiding. June 19 I found a nest with four young birds in it; close by was another just building. The female did the nest building, while her lord attended to the young brood. He fed them at the door which was placed in the front, and out of which the young voided their excrement. When the old bird went for nest material she would fly to a rock in the stream near a moss-patch, and after bobbing up and down a few times, leisurely hop ashore and proceed to snatch up bits of moss. Once I noticed her pulling fibrous shreds from weed stalks, which she dipped in the water before taking to the nest. At the nest, which was about half finished, she went inside and began pushing the moss into the roof and sides; raising the roof here, and pushing out the sides there, until all was satisfactory. Nest-making progressed very fast and in a week's time she had two white eggs in it; these I left until incubation commenced in hopes of getting more. The young birds, when adrift for themselves, skulk under the banks, with only occasional excursions into the water, until winter comes on when old and young flock to the river, it being more free from ice. They are the very embodiment of a mountain torrent,-bustling, and energetic; and their song is like chrystallized spray. Sweet, sparkling, and vivacious, taken with its surroundings, I do not know of any bird-song which surpasses it. They sing

the year round, and as charmingly in January as in the month of roses and home. They are somewhat exclusive, as you will find but one pair in a place. They have four or five young at a brood; in some cases, I think, they remain mated through the winter.

In descriptions of the bird no one seems to have noticed the bronzed head and neck of both sexes in spring. The whole head is beautifully

bronzed from pink and purplish reflections.

Has any one seen a Dipper perching? I was surprised one day, while walking along the river, to see an Ouzel fly up from the water into a bush where he hopped around quite as unconcernedly as any orthodox percher.

7. Regulus calendula, Licht. RUBY-CROWNED KINGLET. - Very abundant from April to October; breeds from 7,500 feet to 10,500 feet. A nest, which I took July 5, was placed in the uppermost branches of a spruce - about 30 feet from the ground - in one of those dark masses where the cones grow thickest, and where it would be impossible to see your hat, were it there. The nest was very loosely placed among the outer twigs, being partially pensile, and was composed of bits of fine bark externally, and within of silk-weed shreds, moss, spider's silk, and feathers; all matted together in a compact manner, and lined with wool. It contained four young and an addled egg, the latter measuring .014 X .012 mm.; white.

Following is a description of the nestling plumage. Top of head dark, almost blackish. Back and rump a light tint of olive-green. Beneath a dirty rusty white, darkest on fore-breast. Lores lighter than rest of head. Primaries and secondaries black, edged on inner margin with white; this white is only on basal half of second primary, but gradually extends until it reaches the tip on the last secondary. Outer edge of second primary white. On the basal third of third primary, the yellow edging of the outer margins of the wing feathers begins and, slightly widening, rapidly extends so as to conspicuously color the secondaries and tertials. The outer webs of the latter have quite a wide whitish band which is edged with greenish-yellow. Greater wing-coverts with a terminal band of dirty white. Tail feathers black; outer pair completely so, rest with greenishyellow margin. Tarsi marbled light and dark. Toes, above flesh color, below yellow. Bill dark above, below flesh colored, pink at base. Measurements of one example: Length, .088; extent, .162; wing, .052; tar-8us, .02; tail, .027 mm.

GOLDEN-CRESTED KINGLET. - Rare; 8. Regulus satrapa, Licht.

a single bird found in September, 1879. 9. Lophophanes inornatus, Bd. PLAIN TITMOUSE. - Not uncommon in September, and doubtless breeds.

10. Parus atricapillus septentrionalis, Allen. Long-Tailed Chick-

ADER. - A very common resident; breeds.

II. Parus montanus, Gamb. Mountain Chickadee. - Fully as abundant as the foregoing; ranges from the Park to the summits of the loftiest peaks. The only difference I have noticed between this bird and its congeners is that chick-a-dee-dee is uttered in a sharper, more wiry tone; the young (?) birds frequently utter a sharp, disagreeable squeak.

- 12. Certhia familiaris, Linn. BROWN CREEPER. An abundant resident; breeds.
- 13. Telmatodytes palustris, Cab. Long-Billed Marsh Wren.—Rare; breeds?; found in September.
- 14. Salpinctes obsoletus, Cab. Rock Wren. Not rare; but nowhere common. A splendid songster. Breeds; ranges to timber-line, and remains until October.
- 15. Eremophila alpestris chrysolæma, Coues. Southwestern Lark.—Not common. Breeds on the higher peaks. In October small flocks of Larks descend into Baker's Park; a few remain all winter, but the most go lower down.
- 16. Anthus ludovicianus, Licht. Brown Lark.—Common; nests above timber-line, where in September both old and young may be found busily gleaning their food on the shores of sub-arctic lakes. In October they begin to descend and soon disappear.

There is a great deal of variation in color in the Brown Lark. Some birds have not the least trace of a spotting on the breast, while others are heavily spotted. Several nests, found at timber-line in July, were placed under the shelter of projecting stones. They were empty at the time, the young having just vacated them.

17. Dendrœca auduboni, Bd. Audubon's Warbler.—Abundant; breeds. A nest before me, taken June 26. is composed of soft, silky weedfibres, which, by their color, give a silvery-gray appearance to the nest. Within it is well lined with feathers and cow-hairs, the latter predominating. The nest contained four eggs in which incubation had begun. Color white, with a faint bluish tinge; at the larger end, shell markings of lilac, and surface lines and blotches of rich brown and brownish black, form a wreath. Average size: —.019 X.013 mm. The nest was loosely placed among the needles on a horizontal spruce bough, about three feet from the ground.

Their song is a pleasant little melody, in parts very similar to the song of D. æstiva. Remain from May until October.

The bird's tongue is finely cleft.

18. Geothlypis macgillivrayi, Baird. MacGillivray's Warbler.—Breeds. One specimen obtained, though I judge it is not uncommon; only shy.

19. Myiodioctes pusillus, Bp. Green Black-capped Flycatching Warbler. — Of this little beauty I know nothing save that it nests here, and becomes common in August and September.

20. Pyranga ludoviciana, Bp. Louisiana Tanager. — I found two which had wandered up into Baker's Park, above the range of the pines.

21. Iridoprocne bicolor, Comes. WHITE-BELLIED SWALLOW. — Rare; breeds; remains until September.

22. Tachyoineta thalassina, Cab. VIOLET-GREEN SWALLOW. — Very abundant; graceful on the wing, they cut but a sorry figure on the ground. Nests both in hollow trees and among the cliffs. In a tree which contained a small hollow with two openings, one six inches above and to one

side of the other, I found two of the Violet Green's nests. No. I had built her nest on a level with the lower opening. No. 2 had filled the space over the first one's head with twigs, and was just finishing her own nest when I came on the scene. In the lower nest I found four fresh, white eggs. Just before a rain storm they love to huddle together on dead trees, like Cedarbirds, when numbers can be killed at a single shot. They leave early in autumn.

23. Ampelis garrulus, Linn. BOHEMIAN WAXWING.—Small flocks seen

24 Vireo gilvus swainsoni, Cones. Western Warbling Vireo. in November.

I saw several other Vireos which I could not secure. I think I saw and Found, but apparently rare. heard, V. solitarius plumbeus; it is very common at 8,000 feet, and, so far as I could judge from a number of specimens, is only a variety of

25. Lanius borealis, Vieill. GREAT NORTHERN SHRIKE. - Rare; a solitarius. fall and winter visitant. Lives by foraging on the little troops of Tit-

26. Lanius ludovioianus excubitoroides, Coues. WHITE-RUMPED

SHRIKE.-Not common; breeds? Some ornithologists discredit the "hovering," and singing of this Shrike. In southern Illinois, where they are numerous and resident, I have seen one hover over a mouse's nest for a few minutes, then dart down and seize a new-born mouse which went to adorn a hedge near by. Soon he was back again, hovering as before, but this time a Meadow Lark so bothered him that he left. When hovering he was at times twenty feet high, and

He has quite a variety of notes: some resemble a Blue Jay's, others the again, just above the weed-tops. whistle of a Cardinal Grosbeak, while others are quite original, and not unmusical. I have also heard them sing here, but in either place, they

only sing during the winter, from October to March. A Shrike I shot here in April, 1880, is typical ludovicianus, excepting that the bill is black, and the wing, instead of being black, is of a ruddy

- 27. Pinicola enucleator, Cab. PINE GROSBEAK. Rather common in late summer, and through the winter. I think they breed, as I found brown color. them the first week in August. A sweet warbler. At one of our camps in the Animas Canon I often heard them singing at daybreak. During severe storms in winter they come down into the willow bushes along the
- 28. Carpodaous cassini, Baird. Cassin's Purple Finch. Not common. Of the several I have taken all have been males. In June they streams. have a Vireo-like warble; strong, clear and sweet. Not seen after Novem-
- 29. Loxia leucoptera, Gm. WHITE-WINGED CROSSBILL.—Rare. One, from Baker's Park, in the collection of Dr. R. H. Brown of Silverton. 30. Leucostiote tephrocotis, — var. australis of Allen. I am some-

what puzzled to know just what disposal to make of this bird. It agrees with australis in having the "red of the abdomen extended to the breast." and the "throat soft, umber brown," but it has grayish lores, and a grayish bordering posteriorly to a black pileum. It is excluded from true tephro-

cotis by having gray below the lores.

I found the Gray-crown rather common above timber-line in June; in August they were in swarms on the summit. The young were just out of the nest, Aug. 17, and kept up an incessant clamor, like young Chimney Swifts. The wind was very high at the time, and often while standing in a lode drift, the noise would go rushing by sounding like the distant jingle of sleigh bells. The only note I heard from the old birds was a thicktoned chirp; in June they have a canary-like peyt-e-weet. The young birds are nearly unicolor, much like the color of the adult's neck, but darker. They breed on ledges in the face of inaccessible cliffs. When they come down in winter they are very tame and confiding.

31. Ægiothus linaria, Cab. RED-POLL LINNET .- These cheery little fellows know nothing of thermometers, and are as jolly with the mercury

- 30° as if it were June.

32. Astragalinus tristis, Cab. YELLOWBIRD. - Obtained a single bird, a male in full breeding plumage, in July, 1879.

- Astragalinus psaltria, Coues. ARKANSAS GOLDFINCH. I found several in the willow bushes along the Rio Animas in October. Doubtless breeds.
- 34. Chrysomitris pinus, Bp. PINE FINCH.—Common; breeds. One of the cheeriest of our few winter residents.
- 35. Poœcetes gramineus, Bd. GRASS FINCH.—Common in the grassy valley near the headwaters of the Rio Dolores, and seen in flocks in Baker's Park. Breeds.
- 36. Melospiza linoolni, Bd. Lincoln's Finch. Very common; breeds. Frequenting marshy places, they skulk through the underbrush like a sprite; more like a mouse in action than a bird. In June they have a pretty wildsome song, the latter part of which reminds me of a Chewink's (Pipilo erythropthalmus). At any time of the day, in June and July, you can hear the little performers pouring out their songs from their perches on the topmost branches of the dwarfed willows.

37. Junco hyemalis aikeni, Ridg. WHITE-WINGED SNOWBIRD. -Rare; not noticed until after two or three severe snow-storms in October. They are easily recognized by being heavier-built than their allies, as well

as by the white wing-bands, though the latter are variable.

38. Junco oregonus, Scl. Oregon Snowbird. - Common. appearing at timber-line in September, stragglers come down and mix with flocks of caniceps, but by October they have taken full possession. When the severe winter weather begins they pass lower down.

39. Junco oregonus annectens, Bd. BAIRD's SNOWBIRD. - Occasionally seen in flocks of the foregoing.

40. Junco cinereus caniceps, Coues. RED-BACKED SNOWBIRD. -Very abundant. The only Snowbird which breeds here, raising two, perhaps three, broods in a season. June 26 I found large young out of the nest; July 25 I obtained a nest with three eggs; and on September 25 I heard young birds crying for food. They are our commonest summer bird, taking the place around the door of the Chippy in the East. The breasts of the nestlings are spotted, but they soon show traces of the chestnut dorsal patch. A curious prolonged, grating tsip is the only note of the young birds. They leave just as oregonus becomes plentiful—Noof the young birds. They leave just as oregonus becomes plentiful—Noof above and those of a clutch taken in June in New Mexico. Both nests of above and those of a clutch taken in June in New Mexico. Both nests are the ordinary "Ground Sparrow" affair. The ground color is the same are the ordinary "Ground Sparrow" affair. The ground color is the same faintly dotted with brown—scarcely noticeable—the Colorado eggs are severywhere dotted with reddish spots, tending to form a wreath around the larger end. I would hesitate to believe the two clutches to be of

caniceps had I not shot the birds.

41. Spizella montana, Ridg. TREE SPARROW. — A rare migratory

visitant in spring and fall.

42. Spizella socialis, Bp. Chipping Sparrow. — Rare; not nearly

as common as the following.

43. Spizella socialis arizones, Comes. Arizona Chipping Sparrow.

—Common; breeds.

[To be concluded.]

CRITICAL NOTES ON A PETREL NEW TO NORTH AMERICA.

BY WILLIAM BREWSTER.

Some months since, while passing the natural history store of W. J. Knowlton, Tremont St., Boston, my attention was attracted by a mounted Petrel, which, with spread wings, hung conspicuously displayed in the window. I saw at once that it was a species new to me and, upon entering, was greatly astonished to species new to me and, upon entering, was greatly astonished to learn that it had been received only a short time before in the elicited the information that it had been mounted for Mr. E. H. Woodman of Concord, N. H., and upon writing to that gentleman, I was very kindly put in possession of the following particulars. The bird had been sent him by a client, Mr. Nathan F. Smith, who conducts a large farm at Mt. Morris, Livingston Co.,