

100. *Hylocichla ustulata swainsoni*. Olive-backed Thrush. Seen at Buffalo Pass saw mill.

101. *Hylocichla guttata guttata*. Alaska Hermit Thrush. One seen at Bijou Creek, May 23.

102. *Hylocichla guttata auduboni*. Audubon Hermit Thrush. One seen at the saw mill at Hell Creek.

103. *Planesticus migratorius propinquus*. Western Robin. From Colorado Springs to Simla, Robins were often seen; then no more were observed until near Fort Collins, when it again became common, and continued more or less abundant from there on everywhere we went. At Mt. Zirkel it was seen at 9500 feet, and I found a nest with four eggs near camp, July 12. It was seen at Buffalo Pass. A few miles below Empire we found a fully fledged young one which seemed disabled, and an examination showed its throat to be injured, apparently by flying against a wire. It seemed unable to stand up, and fluttered about; I am doubtful if it survived its hurt.

104. *Sialia mexicana bairdi*. Chestnut-backed Bluebird. Several seen west of Eastonville, on the Divide.

105. *Sialia currucoides*. Mountain Bluebird. Often seen from Colorado Springs to Simla; after that none until after passing Log Cabin, and that morning, June 17, a nest containing four eggs in an advanced stage of incubation, was found in an old mailbox at the top of the Pingree Hill. The female belonging to this nest was secured, and was a partial albino, having white cheeks and nape. The species was common all through the North Park; at Walden, June 27, I saw three young just from the nest. At Mt. Zirkel they were seen above timberline, and were common at Buffalo Pass. Noted at Steamboat Springs, and frequently from there to Arvada.

AN AFTERNOON'S FIELD NOTES

By J. GRINNELL

THE following excerpt from my private field note-book for the year 1907, is transcribed exactly as originally written, save for minor corrections in punctuation and spelling. These notes were written "on the spot" from time to time during the three or four hours of observation. They show the nature of a certain type of field observations, how these may be recorded in a running narrative style, and there is perhaps some information presented of general interest to the student of living birds.

The experienced observer will probably criticize the method of record, at least, while the beginner may find something worth while adopting. One principle, however, the writer is particularly sure of; namely, that a card-system for immediate record of field-notes is absolutely impracticable. I hasten to assure the reader that I am responsible for a rather elaborate card-system adopted for the cataloging of a museum's collections, and for bibliographic purposes. But this or any other modification of the card-system I have ever seen has its limitations, and to my notion is wholly out of place when it comes to putting into black-and-white facts as gathered in the field. It is quite possible to copy and assort these latter by any kind of system; but the greatest value, because of the element

of first-hand precision, will always lie in the original record. No matter what plan of indexing the information therein contained, may be subsequently put into effect, my original narrative notes are always retained intact, and preserved with the greatest solicitude.

Glendora, Los Angeles County, California, May 5, 1907; 12:45 P. M.—I am alone on the back end of S. W. Wood's orange ranch at the edge of a waste acre or so of land near the Little Dalton which is still running quite a stream. I just saw a Black-chinned Hummer episode: I first saw a female pursued by a male into a thick low bush, where she alighted completely hidden. The male then proceeded to buzz back and forth before her within three feet of her, in the arc of a pendulum of not more than three feet chord. At the same time he uttered a deep buzz augmented at the middle of the swing. After about twenty of these swings, each occupying one second, he mounted up in the air about fifty feet and dove down in a far larger pendulum swing, arising to an equal height on the other side to repeat. At the bottom of the swing he uttered an augmented metallic quavering rattle. After repeating this maneuver twelve times he made off to a nearby *Nicotiana* where he fed from the pendant blossoms without further interest in the female, whom I lost sight of.

12:55—I am in sight of a male Valley Quail stationed about ten feet up on the topmost strong-enough branch of a *Nicotiana*. He is "hollering", the single loud yell, like a child's shout at a distance. Two other quail, one up, the other down the Dalton, are answering at intervals. I have not heard the regular quail-call of three syllables. The quail that I am watching "hollers" at following intervals: 1-3-3-6-4-6-5-12-5-5-5-6-8-10-3-9-7-4-9-8-6-13-3-5-4-5-9-7-5-6-9-5-5-6-5-6-9-5-5-7-4-8-7-7-6-11-6-8-4-4-3-6-7-5. In the above, the dashes represent the call, the numeral the number of seconds, by my watch, intervening. The other two quail have been calling at very similar intervals, and all have been keeping up the performance since 12:55 (it is now 1:7).

1:13—There is a profusion of a tall maroon-colored *Pentstemon*. Just saw a male Black-chinned Hummer rapidly visiting each flower around a spike. A male Lazuli Bunting is singing its hurried shrill song from the top of an oak. The bird is about seventy feet from me in an air line, perched composedly in a hunched-up attitude. He sings at following intervals (seconds):—10-18-15-13-11-12-10-11-11-13-19-11-12-13-13-12-11-9-12-13-13. A Long-tailed Chat is singing from the brush along the creek, his rambling incoherent series of whistles, chucks and squawks.

1:25—The quail is still at it. I heard him make several explosive sounds a while ago like a turkey gobbler. These were uttered in rapid succession in sputtering fashion. A male Costa Hummingbird just flew close to me, feeding about the *Pentstemons*. A male Pileolated Warbler is investigating a pile of weed-overgrown orange brush nearby. All the vegetation is very rank, weeds growing up as high as my head on undisturbed ground.

1:33—A male Costa Hummer was just going through his mating performances; and I am not at all sure there was any female beneath to warrant the energy spent. He mounted up, slowly rising to fully 200 feet (almost out of sight), then swung down with marvelous swiftiness nearly to the ground (1½ feet I should say), rising up more slowly to an equal height to repeat. In his downward swoop he uttered a swelling shrill note of piercing quality and continuous of tone, this dying out on the upward part of the swing. He repeated this

performance about fifteen times before going off to perch and preen himself on a *Nicotiana*.

1:42—Four White-throated Swifts just flew dizzily past high overhead, twittering violently as is their wont. Two clashed and fell, fluttering for what looked like several hundred feet. Another attached itself to the nucleus and all fell till I thought they would descend clear to the ground. But they separated in time to each dart off on his separate way. A male Costa Hummer is very diligent at the Pentstemons. In three cases he sipped at every one of the open flowers on each spike—6, 6, and 12—then sipped at one blossom of another spike and flew off. Several pairs of Lawrence Goldfinches are about with their wheezy notes. Also a pair of Willow Goldfinches (male not perfectly yellow, though fairly bright, but in full song), and lots of Green-backed Goldfinches.

1:56—I have moved across the waste lot about one hundred yards, and am seated on a stone-pile by the creek, with a walnut (*Juglans californica*) fifty feet away, several clumps of *Nicotiana* and some poison-oak thickets nearby. A Pasadena Thrasher is watching me from a *Nicotiana* 150 feet upstream. It has been bathing and is preening and shaking itself violently. There are several pairs of Willow Goldfinches drying themselves in the walnut and bushes nearby. Goldfinches seem more than most other birds to enjoy bathing; this in spite of its being a sunless day, dense high fog with even an occasional drizzle. A Black-headed Grosbeak has been singing from the walnut almost continuously since one o'clock. They are by far the most voluble singers of all the birds within hearing. Perhaps the Green-backed Goldfinches come in next. I have seen and heard both the Bullock and Arizona Hooded Orioles in the vicinity. This location is too near the noisy brook for hearing birds, so I will move back to the other edge of the waste lot.

2:10—Just got an eight-foot view of a female Costa Hummer, at *Nicotiana* flowers. A flock, of separate pairs, mostly, of all three species of goldfinch are feeding in a rank patch of *Amsinckia*, evidently shelling out green seed pods at the bases of the flower spikes. There are at least two Long-tailed Chats singing, but I have only gotten a fleeting glimpse of one as it flushed from a brush pile. Just saw a Golden-crowned Sparrow.

2:25—I just got a good view (twenty feet) of a Lincoln Sparrow in a pile of dry orange trimmings. I saw probably the same bird a few minutes ago in the green weeds under the walnut by the stream. A Least Vireo has been in the oak or around the brush patch all the afternoon. It only sings occasionally, uttering its brief song three to five times, at intervals of five seconds or so. The "theme" is uttered with rising inflection, as if asking a question; then, with a falling inflection, as if replying. These two kinds of notes are uttered alternately. Each "theme" is a warbling jumble of vireo notes uttered hastily, with no care in pronunciation. The rising and falling inflections in alternate themes is the best character of the song. One of the Chats is singing now in plain view on a *Nicotiana* one hundred feet away. Song intervals: w 5 ch 4-w 6-3 ch 4 w 7 ch 3 w 5 ch 5 ch—it's hard to time the chat's song; the whistle (w) most always alternates with some sort of a chuck (ch). I should judge the intervals between the individual notes to average four seconds. He has been singing thus for fully five minutes. Sometimes a whistle is of four clear notes each with falling inflection and close together, very similar to a boy calling his dog; others are single clear whistles, loud and of carrying quality; then the chucks are, some, like a Parkman Wren

call note, others like the hoarse chuck of a mockingbird—*very* hard to describe! A while ago the chat flew up through the air fifty feet or so, singing, with peculiarly drooping and flopping wings. I am sure a pair of Wren-tits have a nest nearby. Also a pair of Bush-tits, the latter probably in the oak, where I have seen them fly several times. Two Western Wood Pewees are about, one frequently in full pursuit of the other with loud snapping of bills, and muttered notes. A Turkey Buzzard is circling overhead. Just watched a female Green-backed Goldfinch laying the first foundation material for a nest five and one-half feet up in a tall weed (*Malva?*).

2:55—Just located the Bush-tit's nest. It is of usual style, six feet up in outer lower drooping oak branch; contained five half-grown young whose claws were clinched together tightly through the material of the nest bottom, and could only be pulled out by pulling the feathers, etc., to which they clung. No wind could dislodge them without tearing the nest to shreds first. The youngsters twitter loudly in chorus when a parent enters the nest with food.

Later—A pair of Mourning Doves have been feeding on the croquet ground by the Wood's house. I saw a Hammond Flycatcher perched on a stake in the reservoir, and another in the orchard. Also two Black Phoebes, and a female Yellow Warbler. At least three Phainopeplas are among the olives and pepper trees along the street. Have also seen about the ranch: Western Lark Sparrow, lots of Linnets, Mockingbirds, Western Chipping Sparrows, and Anthony Towhees.

FROM FIELD AND STUDY

Some Changes and Additions to the List of Birds of Southwestern Montana.—

Owing to the fact that I neglected to have several bird-skins, collected in Southwestern Montana, properly identified until recently, I have one correction and one addition to make to my list in the last number of THE CONDOR. An adult male Red-winged Blackbird collected in the Silver Bow marshes, May 21, 1911, has been identified by Dr. L. B. Bishop as the Northwestern Redwing (*Agelaius phoeniceus caurinus*). He states that it agrees exactly with skins in his collection from the coast of British Columbia. This is all the more surprising because of the fact that I had every reason to believe it to be a breeding bird. I found several nests containing both eggs and newly hatched young in the Silver Bow marshes on the day this bird was secured. Since it is the only one of this species that I have taken in that part of Montana it leaves the breeding form of Redwing there in considerable doubt until more conclusive evidence can be obtained.

An adult female Junco, taken on Clear Creek, Deer Lodge County, October 9, 1910, Dr. Bishop identifies as the Oregon Junco (*Junco hyemalis oregonus*) stating that it is an unusually high-colored specimen even for that race. I had rather suspected that this form occurred among the migrant Juncos of western Montana for some time, but this is my first opportunity to prove it. I confidently believe that more extended collecting will prove it of regular and not rare occurrence.—ARETAS A. SAUNDERS.

Migration of White-necked Ravens.—This past winter has been unusually cold and as a result there has been an utter absence of White-necked Ravens (*Corvus cryptoleucus*). Those from this section (Cochise County, Arizona) migrated in one immense flock the second Monday in last November. This flock extended over a distance of nearly three miles along the foot hills of the Dragoon Mountains near Gleason in this county. There did not seem to be any regular flight, but a sort of general slow movement to the south. The birds were present in many thousands and it was two days before the last stragglers disappeared. A few are now back again, the first being seen on the 22nd of February.