NOTES ON THE BREEDING BIRDS OF CLARK'S FORK, BONNER COUNTY, IDAHO.

BY THOS. D. BURLEIGH.

These notes were taken during the summer of 1917, while I was temporarily attached to the U.S. Forest Service as a Lookout. To the uninitiated it might be well to explain that such a position carries with it the opportunity of spending the summer months in an, ordinarily, 8 by 12 cabin perched on the top of the highest peak where constant watchfulness is kept over the surrounding country for forest fires. My official residence happened to be the Trestle Creek Lookout Station, situated on a mountain top at an elevation of a little over 7000 feet, and some forty miles north of Clark's Fork, and it was here that, with the exception of an infrequent trip to the valleys below me, I spent the time from July 5 to Sept. 14. Several days spent at Clark's Fork early in July and again in September, and my trip to and from the lookout station, with short trips to the valleys, when the day was hazy or unexpected rain had fallen, were my only opportunities for observing bird life other than that found well up the mountain Nevertheless I made the most of this little time spent away from my actual job and I acquired a fair knowledge of the distribution of bird life in this part of the country.

Clark's Fork lies in the extreme northwestern part of the state, in the so-called Panhandle, and within a short distance of the Canadian line. The surrounding country is strictly mountainous and heavily wooded, and forms the present Pend d' Oreille National Forest. The valleys are to a large extent narrow and rugged, one exception being that in which the town is found. As a result little farming is carried on and except where logging operations have been conducted the timber is largely untouched. Small streams are of course numerous, and the Pend d' Oreille River, flowing approximately east and west at this point, brushes the edge of the town and empties some ten miles distant into Lake Pend d' Oreille. The elevation of the valleys is about 3000 feet and the mountain tops average from 6000 to a little more than 7000 feet, although one peak within view of the lookout station was unquestionably well over 10,000 feet.

This region is famed for its unrivaled stands of western white pine (Pinus monticola) and I soon found this to be the predominating tree in the valleys. Along the streams, however, are found the western red cedar (Thuja plicata), the western hemlock (Tsuga heterophylla) and the western larch (Larix occidentalis), and to a less extent the Douglas fir (Pseudotsuga taxifolia). Many of the streams are bordered by deciduous underbrush, willows and alders, but it is only in the more open country that these form more than a mere fringe. Well up the mountain sides, especially on the north slopes, the Englemann spruce (*Picea Englemannii*) appears, to be replaced, as timber line is approached, by the alpine fir (Abies lasiocarpa). Timber line is reached at approximately 7000 feet, the mountain tops above that elevation being covered with either steep talus slopes or grass. The fir woods were open and largely free from underbrush, the trees being scattered singly or in small groups. Here, on the north slopes, snow drifts lingered almost the entire summer and as far as I could see formed the source of many of the small streams that were found in the ravines farther down the mountain sides. These ravines, narrow, rugged and heavily wooded, and invariably with swift roaring streams where they reached the valleys, widened out as they reached a higher altitude to form the open meadows so characteristic of the higher The meadows covered from one to three acres and were really open grassy parks with little underbrush and groups of firs scattered about here and there.

The lookout station was well situated as far as varied topography and local conditions were concerned, for when opportunity offered it was possible within a short time to be in widely different situations. On one side of me was Lightning Creek, and here there were virgin stands of white pine, cool secluded ravines, and practically no open country whatsoever, while on the other side was Trestle Creek where logging operations had but recently been carried on and the valley, as a result, largely an open slashing.

Bird life, I soon found, varied widely in different spots, the life zones being quite distinct.

About Clark's Fork, an open valley where the land was largely under cultivation, the following birds were seen, and recorded nowhere else:

Spotted Sandpiper

Killdeer Kingbird

Western Wood Pewee

Western Crow **Bobolink** Cowbird

Western Meadowlark Brewer's Blackbird Western Vesper Sparrow

Western Savannah Sparrow Black-headed Grosbeak

Western House Wren

Lazuli Bunting Cliff Swallow

Tree Swallow

Rough-winged Swallow

Cedar Waxwing Red-eved Vireo Yellow Warbler

Macgillivray's Warbler Western Yellow-throat Long-tailed Chat

Redstart Catbird

In the heavy timber such as was found on Lightning Creek bird life was much scarcer and totally different from that in the open valleys, the following species being characteristic of such country, and seen nowhere else:

Batchelder's Woodpecker Hammond's Flycatcher

Western Tanager Townsend's Warbler

Dipper

Western Winter Wren Chestnut-backed Chickadee Western Golden-crowned Kinglet

Olive-backed Thrush Northern Varied Thrush

Well up the mountain sides another distinct change was noted, the open fir woods and meadows having birds, in many cases present in large numbers, that were entirely lacking in the valleys. Among these were the:

Franklin's Grouse Red-naped Sapsucker Olive-sided Flycatcher Dusky Horned Lark

Clarke's Nutcracker

Rocky Mountain Pine Grosbeak

Cassin's Purple Finch Crossbill

Gambel's Sparrow Lincoln's Sparrow

Slate-colored Fox Sparrow Orange-crowned Warbler Audubon's Warbler Pileolated Warbler

Pipit

Red-breasted Nuthatch Mountain Chickadee Ruby-crowned Kinglet Townsend's Solitaire Audubon's Hermit Thrush

Some few species were found wherever any open country occurred, either in the valleys or up the mountain sides to the edge of timber line, the heavy timber alone being shunned. Characteristic of this disregard of altitude were the:

Rocky Mountain Hairy Woodpecker

Pine Siskin

Red-shafted Flicker

Western Chipping Sparrow

Calliope Hummingbird Rocky Mountain Jay Montana Junco Mountain Bluebird

It is realized that this list is far from complete but so little has appeared to date concerning the bird life of Idaho that it was felt that there was justification in publishing the results of this summer spent in Bonner County. The notes that follow are largely a summary of the relative abundance and distribution of the species noted, with a few late breeding records.

Actitis macularia. Spotted Sandpiper.—This species was found to be a fairly plentiful summer resident here, in the more settled country about Clark's Fork. Birds were seen both along the Pend d' Oreille River and about the occasional small streams and scattered ponds.

Oxyechus vociferus. Killdeer.—Like the last, fairly plentiful and found in open fields or pastures in the vicinity of water.

Canachites franklini. Franklin's Grouse -I found this bird nowhere but in the open timber on the higher ridges, but here it was reasonably plentiful and seen at frequent intervals. Locally it is known as "Fool Hen" and I was not long in admitting the appropriateness of this title. On approaching a bird it would fly to a lower limb of the nearest tree and remain there calmly watching me as I stood beneath it, often, as it happened, not over fifteen feet away. On Aug. 14 a female was found with two half grown young, feeding at the edge of an open mountain meadow. On my approach the old bird walked out to the end of a large log where she allowed me to walk within five feet of her before flying into a large fir nearby. The young ran for a short distance and then crouched close to the ground where they remained until I almost touched them. Then they too flew into the nearest tree. Five birds seen Sept. 8 were feeding on huckleberries in an open space on the mountain side, and I succeeded in walking within a few feet of them before they resented my curiosity, and flew.

Accipiter velox. Sharp-shinned Hawk.—On one of my infrequent trips to Trestle Creek one of these birds was noted flying by overhead, and later, Aug. 25, one was seen perched in the top of a large dead fir at the top of the mountain. Possibly this is not an uncommon breeding bird here.

Buteo borealis calurus. Western Red-tail.—A pair of these birds had seemingly nested in the open timber near the Lookout Station and one or two were in evidence daily throughout the summer.

Cerchneis sparveria phalaena. Desert Sparrow Hawk.—Scarce, and seen but twice during the summer, a single bird July 20 and three on Aug. 23, hovering each time over a large talus slope at the top of the mountain.

Asio flammeus. Short-eared Owl.—My one record for the occurrence of this species here was rather unexpected. On Aug. 15, just at

dusk, a large bird lit in the top of an old dead snag standing near my cabin and on being shot proved to be a Short-eared Owl. Considering the fact that this was at the top of one of the higher peaks and that for a radius of possibly forty miles the country was heavily timbered, my surprise at securing this bird can easily be realized.

Bubo virginianus pallescens. Western Horned Owl.—On Sept. 11, while at the Trestle Creek Ranger Station, one bird was heard late in the afternoon calling frequently from a thick stand of hemlocks and red cedars that bordered the stream at this spot.

Ceryle alcyon alcyon. Belted Kingfisher.—My one record for the occurrence of this species was a single bird seen Sept. 4 flying by low overhead over the top of the mountain.

Dryobates villosus monticola. ROCKY MOUNTAIN HAIRY WOOD-PECKER.—Fairly plentiful, and seen both in the open valley about Clark's Fork and on the higher ridges near the Lookout Station. On the western slope below my cabin the timber had been killed several years ago by a fire and here one or two birds could be seen daily feeding in these dead fire-scarred firs.

Dryobates pubescens homorus. Batchelder's Woodpecker.—I saw this species only in Lightning Creek, and here on July 8 a nest was found that held almost fully fledged young. It was fifteen feet from the ground in the stub of a small white pine in open woods within fifty yards of the stream. Both adults and young were very noisy, the latter keeping up an almost incessant call for food. Later, on Sept. 2, three birds were seen well up the mountain side, one of them, a young bird, very probably from this nest, still following the adult birds about and being fed at frequent intervals.

Sphyrapicus varius nuchalis. Red-naped Sapsucker.—The first bird was seen July 29, while crossing one of the open mountain meadows, and they later were found to be fairly plentiful in such spots. Two birds seen Aug. 23 were flycatching quite efficiently, darting out at frequent intervals from the upper branches of a large dead tree after passing insects.

Phloeotomus pileatus abieticola.—NORTHERN PILEATED WOOD-PECKER.—This species was far scarcer than I expected to find it, for I have but one record for its occurrence here, two birds being seen Sept. 14 in the open woods at the edge of the town. None were seen in the heavy timber either on Lightning Creek or Trestle Creek.

Colaptes cafer collaris. Red-shafted Flicker.—A common bird wherever any open country occurred. In common with other species they wandered to the tops of the higher mountains, practically at the edge of timber line, during late summer and could be found then in large numbers on the open slopes. Sixteen birds that I found feeding together at one spot on Aug. 6 is an indication of how they deserted the valleys at this time of the year.

Chordeiles virginianus hesperis. Pacific Nighthawk.—Early in the evening of July 3 three birds were seen feeding high overhead over

the town, and the following day a bird was seen asleep on the top of a low stub in the middle of an open field. In all probability this species is a reasonably common summer resident here.

Chaetura vauxi. Vaux's Swift.—A common breeding bird here. I usually saw them during my infrequent trips to the ranger stations on Lightning Creek or Trestle Creek, although at intervals single birds or small scattered flocks would appear feeding about my lookout station. My last day on Trestle Creek, Sept. 11, three were seen feeding low overhead.

Selasphorus rufus. Rufous Hummingbird.—I have but one record for the occurrence of this species here, one bird, a male, being seen July 4 resting quietly on a dead twig at the edge of underbrush bordering an open field.

Stellula calliope. Calliope Hummingbird.—I found this species plentiful wherever I went, in the more open woods about the town, in the heavy timber in the valleys, and in the mountain meadows and stretches of alpine firs at timberline. A nest found July 4, in a short stretch of woods at the edge of the town, was thirty feet from the ground at the outer end of a dead drooping limb of a large Douglas fir, and held two almost fully fledged young. My latest record is a bird seen Aug. 29, feeding about some flowers at the side of a stream in a deep wooded cañon.

Tyrannus tyrannus. Kingbird.—A fairly plentiful summer resident in the open country about Clark's Fork.

Nuttallornis borealis. OLIVE-SIDED FLYCATCHER.—I saw this species nowhere but in the mountain meadows scattered at the edge of timberline but in spots such as this one or two pairs could invariably be found. The heavy timber in the valleys held no attraction for them although the slashings which follow logging will sooner or later possibly bring them there. In early August they suddenly became quite plentiful and were seen then scattered through the open woods on the higher ridges as much as in the meadows. At all times they were noisy and conspicuous, and by no means a bird that could be overlooked.

Myiochanes richardsoni richardsoni. Western Wood Pewee.— A scarce summer resident, and seen only in the scattered short stretches of woods about the town. A nest found July 4 held four well grown young and was thirty feet from the ground and twenty feet out at the outer end of a limb of a large white pine. The trees here were well draped with strands of lichens and for this reason this nest was unusually well concealed.

Empidonax hammondi. Hammond's FLYCATCHER.—This species was confined to clearings and open spots in the heavy timber in the valleys, and as these were few and far between these birds were as a consequence a little scarce.

Otocoris alpestris merrilli. Dusky Horned Lark.—It was not until August 30 that I recorded this species for the first time, a small flock of six birds being seen feeding at the edge of a talus slope at the

top of the mountain. Within a few days however such small flocks were of common occurrence, especially early in the morning, flying by overhead or pausing for a short time to feed on the open slopes at timberline.

Pica pica hudsonia. MAGPIE.—Seen but once, a single bird Sept. 14 in the top of a tree at the edge of a field near the town.

Cyanocitta stelleri annectens. Black-headed Jay.—This species was quite plentiful here but showed a decided preference for the more open country in the valleys so while I saw it both about Clark's Fork and on Trestle Creek it was entirely wanting on Lightning Creek. Small, noisy flocks, probably family parties, were always encountered on my occasional trips to Trestle Creek, but they never wandered far up the mountain sides.

Perisoreus canadensis capitalis. Rocky Mountain Jay.—I have but two records for the occurrence of this species here although, being quiet and inconspicuous, it may possibly be more plentiful than my notes would indicate. On July 4 three birds were seen in a stretch of woods near the town, and on July 21 three were found quietly feeding in the firs below my lookout station.

Corvus brachyrhynchos hesperis. Western Crow.—Fairly plentiful about the town but seen nowhere else.

Nucifraga columbiana. Clarke's Nutcracker.—This was one of the commonest and most characteristic birds of the open woods at timberline and was seen daily throughout the summer. Always noisy, they were if anything more so during the latter part of August and they indulged then in gymnastics that were as varied as interesting. One of their favorite amusements was to fly high into the air until almost out of sight, and then return to the place they had started from in a number of long swift swoops, repeating this again and again until they tired or became temporarily hungry.

Dolichonyx oryzivorus. Bobolink.—Fairly plentiful about the town, males being seen during early July hovering singing over many of the open fields and pastures.

Molothrus ater ater. Cowbird.—I saw this species about Clark's Fork, and it is probably a fairly common summer resident in the open valleys.

Sturnella neglecta. Western Meadowlark.—Plentiful in the open fields and pastures about and in the town. July 4 a bird was seen with food in its bill for young evidently nearby judging from its uneasiness. By the middle of September they had begun to gather into small flocks, fifteen being seen Sept. 14 on a telephone wire at the side of the road. Several were heard singing that day.

Euphagus cyanocephalus. Brewer's Blackbird.—Near one edge of the town was an open marsh, overgrown to a slight extent with alders, and here I found a small colony of possibly ten pairs of these birds breeding, the young being out of the nest and fairly well grown the first week in July.

Pinicola enucleator montana. ROCKY MOUNTAIN PINE GROSBEAK.—It was the latter part of the summer before I first saw this species here but it unquestionably breeds, sparingly at least, well back in the mountains. On Sept. 6, a small flock of six birds was seen, all of them in the dull gray plumage, and on Sept. 10, three birds, two of them adult males, were noted, feeding each time on or near the ground in the open woods well up the mountain side.

Carpodacus cassini. Cassin's Purple Finch.—Very plentiful throughout the summer in the open woods on the higher ridges. During July they could be heard singing at all hours of the day from the tops of the trees, one bird being seen, on the 10th, giving a flight song, circling and hovering high in the air as it sang. By the latter part of August they had gathered into large flocks and it was not unusual to see as many as fifty feeding together then.

Loxia curvirostra minor. Red Crossbill.—Like the last, this species was very plentiful throughout the summer on the higher ridges but almost invariably small, restless, noisy flocks were seen, flying by overhead or feeding in the tops of the firs. At rare intervals one was heard singing but no evidence of breeding was noted.

Spinus pinus. PINE SISKIN.—I found this species very plentiful here, both about Clark's Fork and on Trestle Creek, as well as in the open woods at timberline. They seemed to shun the heavy timber in the valleys and none were seen on Lightning Creek. Invariably they occurred in small flocks and had seemingly finished nesting by the first of July.

Pooecetes gramineus confinis. Western Vesper Sparrow.—Seen only in the open fields about the town where it is seemingly a scarce summer resident.

Passerculus sandwichensis alaudinus. Western Savannah Sparrow.—A fairly plentiful summer resident in the open fields and pastures about the town.

Zonotrichia leucophrys gambeli. Gambel's Sparrow.—This species may possibly breed here although I recorded it as an early fall migrant only. The first bird was seen Aug. 27, feeding in a thicket at the edge of one of the open mountain meadows, and by Sept. 9 they had become fairly plentiful about my lookout station. It may easily be that they nest in open spots in the valleys and wander up the mountain sides during late summer, although I have no direct evidence to this effect.

Spizella passerina arizonae. Western Chipping Sparrow.—A very plentiful summer resident. Two nests found during July show clearly the adaptability of this species to widely varied conditions. The first, found July 4 with four well incubated eggs, was six feet from the ground in a small Douglas fir at the edge of an open field near the town. The second, that on July 19, held four fresh eggs, was five and a half feet from the ground in the top of a small alpine fir at the edge of a thicket practically at timberline, and fully forty miles from the nearest civilization. Both

nests were similar in construction, being compactly built of weed stems, rootlets and grasses, lined with horse hair.

Junco hyemalis montanus. Montana Junco.—This species was common in the open valleys and well up the mountain sides, but showed a decided aversion to the thick timber such as was found on Lightning Creek and none were seen in such spots. By the middle of July these birds had gathered into quite large flocks, for on the 16th fully a hundred were seen feeding at the edge of a large snow drift near the top of the mountain. The following day, however, a female was seen gathering nesting material and seemingly preparing to raise a late brood.

Melospiza melodia montana. Mountain Song Sparrow.—Fairly plentiful in the thickets and underbrush about the town. Only once was it seen near the lookout station, a single bird being found Sept. 5 feeding at the side of a trail through the open woods.

Melospiza lincolni lincolni. Lincoln's Sparrow.—One or two pairs bred in the scattered open meadows at the top of the mountain and during July the males could be found at various times during the day singing from the tops of the larger trees. At all times they were timid and hard to approach, disappearing at once in the nearest brush if any attempt was made to get a good view of them.

Passerella iliaca schistacea. SLATE-COLORED FOX SPARROW.—It was August 1 before I first recorded this species here, two birds being seen that day feeding in underbrush (throughout the remainder of the summer), bordering a small stream in one of the open meadows. From that date on however they were seen at infrequent intervals and possibly breed sparingly through these mountains.

Pipilo maculatus montanus. Spurred Towhee.—Fairly plentiful on the brushy hillsides about the town, and singing during early July. A young bird of this year, fully grown, was seen July 21 feeding in underbrush near my lookout station, illustrating again the tendency of many of the birds to wander to the tops of the mountains during the summer months.

Hedymeles melanocephala. BLACK-HEADED GROSBEAK.—This species was found to breed sparingly in the deciduous underbrush bordering the streams in the open valleys. A nest found July 4 was twenty feet from the ground in the top of a small slender willow at the edge of underbrush bordering a small creek, and was built of coarse weed stems, lined with finer ones. The male bird was flushed from the four well incubated eggs.

Passerina amoena. LAZULI BUNTING.—Plentiful and singing during early July in the underbrush about the town.

Piranga ludoviciana. Western Tanager —This species was a plentiful summer resident here, scattered pairs being seen in the heavy timber in the valleys. It was not until the latter part of August that they were seen at timberline but they finally did appear there in small flocks that were probably family parties.

Petrochelidon lunifrons lunifrons. CLIFF SWALLOW.—Plentiful and breeding in small colonies in and about the town. One large barn held the majority of the nests although two found July 5, with the birds seemingly incubating in both, were under the eaves of the school house.

Iridoprocne bicolor. TREE SWALLOW.—My one record for the occurrence of this species here was a flock of eight birds seen July 3 on a telephone wire at the side of a road. It is probably a fairly common summer resident.

Stelgidopteryx serripennis. Rough-winged Swallow.—I found but one pair of these birds breeding here but their scarcity was probably due to lack of suitable places to nest. The one nest I did find was rather unexpected, and in a spot where I had no thought of coming across this species. A small clearing had been made in a narrow valley deep in the woods and at the side of a swift rather turbulent stream. The removal of the timber had eventually caused a landslide that had formed a high steep bank at the side of the stream. Near the top of this the birds had excavated a shallow pocket and built a nest that on July 4 held six well incubated eggs. It seemed strange to me to see them feeding over the tops of the trees so deep in the woods, for I had always associated these birds with rather open country.

Bombycilla cedrorum. Cedar Waxwing.—Very plentiful in and about the town where, on July 5, two nests were found. The first held five slightly incubated eggs and was fifteen feet from the ground in the top of a small slender larch at the edge of some underbrush at the side of a road. It was compactly built of larch twigs, grasses and moss, lined with the dry needles of the western white pine. The second which held two fresh eggs was six feet from the ground in a small Douglas fir at the edge of a field, and was built of weed stems and wool, lined with wool and dry pine needles.

Vireosylva olivacea. Red-eyed Vireo.—Fairly plentiful in the open woods about the town, but seldom seen far from the deciduous underbrush that bordered the streams.

Lanivireo solitarius cassini. Cassin's Vireo.—I found this species fairly plentiful in the open cut-over timber on Trestle Creek but saw it nowhere else. Seemingly they have no liking for the thick woods for none were seen on Lightning Creek throughout the summer.

Vermivora ruficapilla gutturalis. Calaveras Warbler.—This species was limited to the thick underbrush on the south slopes of the mountains but here it was fairly plentiful and seen throughout July and August.

Vermivora celata celata. Orange-crowned Warbler.—A pair of these birds bred in one of the open meadows near my lookout station but I saw them nowhere else during the summer. They could always be found about a thicket of small alpine firs and here the male was frequently heard singing until early in August. The nest was unquestionably close by but

I made no effort to find it as the young had probably flown by the first of July.

Dendroica aestiva aestiva. Yellow Warbler.—A plentiful summer resident in the deciduous underbrush about the town.

Dendroica auduboni auduboni. Audubon's Warbler.—I found this species a plentiful summer resident here, especially in the open fir woods on the higher ridges. A female was seen July 22 gathering nesting material on the ground but an attempt to trail her to the nest was unsuccessful. After the middle of August small restless flocks were frequently encountered, and they were still much in evidence when I left early in September.

Dendroica townsendi. Townsend's Warbler.—This was a fairly common summer resident here but it showed a decided partiality for the ravines and the thick timber in the valleys and was rarely seen elsewhere. Toward the latter part of August an occasional bird appeared in the open woods near timberline and my last day at the lookout station, Sept. 10, an adult male was seen.

Oporornis tolmiei. Macgillivray's Warbler.—I found this species a fairly plentiful summer resident in thickets and underbrush about the town, with an evident preference for the vicinity of water. Early in August they appeared for the first time in the open mountain meadows near timberline, and lingered there as late as Sept. 3.

Geothlypis trichas occidentalis. Western Yellow-throat.—Like the last fairly plentiful in the thickets and underbrush about the town.

Icteria virens longicauda. Long-tailed Chat.—One bird was seen July 4 in underbrush at the edge of a field, my only record for the occurrence of this species here. Seemingly it breeds but sparingly.

Wilsonia pusilla pileolata. PILEOLATED WARBLER.—This was one of the characteristic breeding birds of the open meadows at the edge of timberline, scattered pairs being found in the underbrush bordering the small streams. They were seen throughout the summer, my latest record being that of an adult male seen Sept. 10 in the open fir woods part way up the mountain side.

Setophaga ruticilla. Redstart.—This species was a rather scarce summer resident for I have but one record for its occurrence here, an adult male being seen July 4 feeding in the lower branches of a large white pine at the edge of a field.

Anthus rubescens. Pipit.—This species possibly breeds well above timberline on some of the higher peaks found here but I recorded it as a migrant only. It was not until Sept. 12 that the first birds appeared, a flock of fully fifty being seen that day feeding on a talus slope below the lookout station.

Cinclus mexicanus unicolor. DIPPER.—This species probably breeds on many of the numerous streams here. I saw it twice, one bird Aug. 29 on Lightning Creek and again a single bird Sept. 12 on Trestle

Creek. They were feeding each time about the rocks and boulders that lined the shore, and were silent and a little timid.

Dumetella carolinensis. CATBIRD.—Seen only in underbrush about the town, but fairly plentiful there.

Troglodytes aedon parkmani. Western House Wren.—I found this species a common summer resident in and about the town. A pair seen July 4 investigating a hole in an old stub at the edge of a field were seemingly contemplating a second brood for five fully grown young were seen that day.

Nannus hiemalis pacificus. Western Winter Wren.—This was one of the few birds that showed a decided preference for the thick timber in the valleys and avoided entirely the more open country. Scattered birds, usually males, singing, were seen on Lightning Creek, feeding in the more secluded spots about old logs and piles of brush.

Sitta carolinensis nelsoni. Rocky Mountain Nuthatch.—This species seemingly breeds here but sparingly for I saw but a single bird the entire summer, one appearing Aug. 11 in the open fir woods below the lookout station and lingering there for two days.

Sitta canadensis. Red-breasted Nuthatch.—This was a common bird in the open fir woods well up the mountain sides and one or two could always be seen during even the shortest walk. None were noted in the valleys throughout the summer.

Penthestes atricapillus septentrionalis. Long-talled Chickadee.

—This species was fairly plentiful in the open valleys and was seen during the summer both in the stretches of woods about the town and in the cut-over timber on Trestle Creek.

Penthestes gambeli gambeli. MOUNTAIN CHICKADEE.—Unlike the last this was distinctly a bird of the higher mountain ridges for while none were seen in the valleys it was fairly common in the open fir woods near timberline. Aug. 28 a female in soiled worn plumage was found feeding a young bird whose fluffy feathers and short, stubby tail showed it had not been long out of the nest.

Penthestes rufescens rufescens. Chestnut-backed Chickadee.— The heavy timber in the valleys seemingly offered no inducements to the preceding two species but this bird found it more to its liking and while it never wandered far up the mountain sides or into the more open country it occurred fairly plentifully in the secluded ravines and narrow, thickly wooded valleys. During my infrequent trips to Lightning Creek I always encountered small flocks of these birds, and soon came to associate them with Western Winter Wrens and Northern Varied Thrushes that showed a similar preference for such spots.

Regulus satrapa olivacea. Western Golden-Crowned Kinglet.—Scattered pairs of these birds bred along the streams in the valleys, small flocks wandering during the summer well up the mountain sides where, in August and early September, they were found feeding in the open fir woods.

Regulus calendula calendula.—RUBY-CROWNED KINGLET.—It was not until Aug. 23 that I first recorded this species, four birds being seen that day feeding, singing, in the lower branches of several alpine firs at the edge of an open meadow. They soon became plentiful and were seen daily about the lookout station. They probably breed to some extent through these mountains as this lies within their summer range, and I am somewhat puzzled that I did not see them earlier in the summer.

Myadestes townsendi. Townsend's Solitaire.—Probably a fairly common summer resident here for during August and early September one or two birds were seen at frequent intervals about the lookout station.

Hylocichla ustulata swainsoni. OLIVE-BACKED THRUSH.—I found this species a plentiful summer resident in the heavy timber in the valleys. July 6, while following a trail through the woods on Lightning Creek, three nests were found, in one four incubated eggs and in the other two, three eggs each, equally well incubated. All were in hemlocks, varying in height from four to ten feet from the ground, and were similar in construction, being small and compact and built of fine twigs, grasses, bits of rotten wood, shreds of inner bark and moss, lined with skeleton leaves and moss.

Hylocichla guttata auduboni. Audubon's Hermit Thrush.—A fairly plentiful summer resident in the open meadows on the higher ridges. None were seen in the valleys nor in fact below an altitude of 6000 feet. They seemingly breed late for they were heard singing throughout July, and on July 17 two were seen carrying food to young still in the nest.

Planesticus migratorius propinquus. Western Robin.—A common summer resident in the valleys, wandering during August to the edge of timberline where small noisy flocks were frequently encountered.

Ixoreus naevius meruloides. Northern Varied Thrush.—This was a common bird in the thick timber in the valleys, especially in the more seeluded ravines. Quiet and inconspicuous during the day, at dusk they would sing from the very tops of the larger trees and their short, weird song could then be heard on all sides. A late nest found August 7 held three well incubated eggs and was fifteen feet from the ground and twenty feet out at the outer end of a limb of a large hemlock at the side of a swift roaring stream in a deep wooded ravine. It was substantially built of hemlock twigs and moss, lined chiefly at the bottom with soft crushed fragments of weed stems. The female was incubating and on being flushed disappeared without a sound in the underbrush and was not seen again. The eggs were light blue, with a cluster of fine dots of light brown and lavender at the larger end.

Sialia currucoides. Mountain Bluebird.—I found this species a plentiful summer resident wherever any open country occurred, not only in the valleys but also on the higher mountain ridges. A nest found July 10 held well grown young and was fifteen feet from the ground in a cavity in an old fire-killed tree in a burned-over area almost at timberline.

University of Georgia, Athens, Ga.