

The nest was built in a cottonwood tree in the same grove in which we first found the birds. The nest had evidently been the birthplace of many generations of these Hawks, for it measured four feet in depth by two feet in width. It was lined with a layer of cottonwood leaves several inches deep, was very slightly concave, and composed of large sticks, much decayed below, showing that they had been in position for a number of years. The nest was about thirty feet from the ground. The female parent remained too shy to return to the nest until I began to climb the tree. At first I attempted to ascend by means of some grapevines, which gave way; then I managed to reach the upper part of the huge bole by swinging from a tall, slender box-elder tree, and scrambled with much exertion to the lowest branch. Meanwhile the Hawk had shown much uneasiness, fluttering in the air and screaming lustily. As I approached her treasure her parental solicitude overcame her terror and she sailed over the tree-top. I saw the gun at the Captain's shoulder and feared he would miss; but he wisely held his fire until the bird wheeled and rushed directly toward me, when a well directed shot dropped her just at his feet. A minute later I reached the nest and discovered a single half grown nestling, having the quill-feathers webbed terminally, and leaden gray down covering the greater part of the body. It fought fiercely, and evinced great pluck and ability to defend itself. The wounded parent was also savage, and tried to reach its assailant. After it was dispatched, the Captain proposed that we should attempt to find my wounded Hawk; but the locality was too dangerous, so we abandoned it with regret.

LIST OF BIRDS OBSERVED IN SUMMER AND FALL ON THE UPPER PECOS RIVER, NEW MEXICO.

BY H. W. HENSHAW.

[*Concluded from Vol. II, p. 333.*]

30. *Poœcetes gramineus confinis*. WESTERN GRASS FINCH. — A single individual was secured Sept. 20. It was doubtless merely a migrant which had strayed from its proper territory lower down on the plains.

31. *Zonotrichia leucophrys*. WHITE-CROWNED SPARROW. — Present only as a rare migrant, it being too far south for the species to breed.

32. *Zonotrichia intermedia*. RIDGWAY'S SPARROW. — Rather common as a migrant. None of course breed, as none are known to do so within the United States.

33. *Spizella socialis arizonæ*. WESTERN CHIPPING SPARROW. — An abundant summer resident. Very abundant in the weed patches Sept. 8. Up to this time not a single bird had been seen in the fall dress, all being in the plumage of the young, *i. e.*, streaked beneath. Later individuals in the fall plumage became more common.

34. *Junco caniceps*. GRAY-HEADED SNOWBIRD. — This is one of the commonest summer residents found in the mountains, and occurs everywhere throughout the timber belt above an altitude of 6000 feet. The old birds were leading their broods about in the spotted plumage at the time of our first arrival, July 18, and the species continued to be equally common up to the last of October, the places of such birds as migrated further south being filled by others from points further north.

35. *Junco oregonus*. OREGON SNOWBIRD. — Though by no means so numerous as the bird just named, this Snowbird became pretty common after October 1, and in every flock of Snowbirds there was a fair sprinkling of this species, to be recognized from its comrades by its stouter form and darker colors.

36. *Junco annectens*. PINK-SIDED SNOWBIRD. — Made its appearance a few days later than *oregonus*, and not in such numbers. In a flock of 200 Snowbirds, perhaps 125 would be *caniceps*, 50 *oregonus*, and 25 *annectens*. These figures represent about the average. Of the three, *oregonus* is by far the greater wanderer. So far as known it does not breed anywhere east of the Sierras; yet in fall it is found in almost every flock of Snowbirds in the region between that chain and the main ridge of the Rocky Mountains, and as far south as the Mexican border. Neither of the other species go so far south, or are dispersed longitudinally to anything like the same extent.

37. *Peucea cassini*. CASSIN'S FINCH. — Curiously enough a single specimen of this bird was taken close to the banks of the Pecos. No locality could be less suited to its habits, and it evidently was a mere straggler from the plains below.

38. *Melospiza lincolni*. LINCOLN'S FINCH. — Evidently does not occur in summer. The first was taken Sept. 12, after which date it became tolerably numerous in the weed patches.

39. *Pipilo maculatus megalonyx*. SPURRED TOWHEE. — Uncommon. A pair or two passed the summer in the brush along the Pecos.

40. *Pipilo chlorura*. GREEN-TAILED FINCH. — Also uncommon. A single brood was seen in the little valley below our camp, and a few stopped on the migration.

41. *Pipilo fuscus mesoleucus*. CAÑON TOWHEE. — Not found so high up in the mountains as our camp, but extremely common at Glorietta, on the railroad, and thence following up the river for some distance into the foothills.

42. *Passerina amœna*. LAZULI FINCH.—Shot a single individual Aug. 8, the only one seen.
43. *Scolecophagus cyanocephalus*. BREWER'S BLACKBIRD.—A few made their appearance during the fall migration.
44. *Corvus corax carinivorus*. RAVEN.—Rather common; undoubtedly breeds in the higher parts of the mountains.
45. *Corvus frugivorus*. COMMON CROW.—A few were seen in October; apparently does not breed.
46. *Picicorvus columbianus*. CLARKE'S CROW.—It is doubtful if this species breeds as low as the elevation of our camp, 7800 feet. It unquestionably, however, breeds on the high ridges and mountain sides, and becomes numerous at lower altitudes among the pines, early in the fall.
47. *Gymnocitta cyanocephala*. MAXIMILIAN'S JAY.—This species appears never to get up among the pine woods. It is, however, abundant in the piñon groves about fifteen miles down the river, where it is a constant resident.
48. *Cyanocitta stelleri macrolopha*. LONG-CRESTED JAY.—This Jay is extremely numerous all through the pine region, where it is a constant resident.
49. *Perisoreus canadensis capitalis*. WHITE-HEADED JAY.—Up to October 27 this bird had not descended to the altitude of our camp, about 8000 feet. It breeds high up in the mountains in the spruce timber, and does not descend lower until heavy snows compel it to wander in search of food. It is very common.
50. *Contopus borealis*. OLIVE-SIDED FLYCATCHER.—Rather common as a summer resident. Were it not for its loud, piercing note this species would easily be overlooked, as it frequents the higher stubs and does all its insect hunting from them.
51. *Contopus richardsoni*. WESTERN WOOD PEWEE.—Numerous all through the pine region.
52. *Empidonax flaviventris difficilis*. YELLOW-BELLIED FLYCATCHER.—Rather common in the brush along the water-courses. Nests on ledges of rock. Saw the young accompanied by the parents July 19.
53. *Empidonax obscurus*. WRIGHT'S FLYCATCHER.—Not common. Occurs as a summer resident.
54. *Selasphorus platycercus*. BROAD-TAILED HUMMER.—Extremely numerous; young birds were noticed August 1, and by the 10th they became common. By August 1 the males of this species began to get less numerous, and by the 10th there were none; in fact, I saw very few after that date. This is an extremely interesting fact. Wherever I have been in the West, and for that matter in the East also, I have always been led to wonder at the apparent absence of males early in fall in localities where the females and young were very numerous. The observations I was able to make here solved the problem to my satisfaction. The truth appears to be that *immediately* upon the young leaving the nest the males abandon their summer limits and at once set out for their winter quarters, leaving the females and young to follow at their convenience.

In this locality at least there is an evident reason for this. Just about this date the *Scrophularia*, which is the favorite food plant of the Hummers, begins to lose its blossoms, and in a comparatively short time the flowers give place to the seed pods. Though there are other flowers which are resorted to by the Hummers, particularly several species of *Penstemon*, they by no means afford the luxurious living the former plant does. It seems evident, therefore, that the moment its progeny is on the wing, and its home ties severed, warned of the approach of fall alike by the frosty nights and the decreasing supply of food, off go the males to their inviting winter haunts, to be followed not long after by the females and young. The latter—probably because they have less strength—linger last, and may be seen even after every adult bird has departed.

55. **Selasphorus rufus.** RUFIOUS-BACKED HUMMER.—The number of representatives of this and the preceding species that make their summer homes in these mountains is simply beyond calculation. No one whose experience is limited to the Eastern United States can form any adequate idea of their abundance. They occur from an altitude of about 7500 feet far up on the mountain sides, as high up, in fact, as suitable flowers afford them the means of subsistence. They are most numerous at an altitude of from 8000 to 9000 feet. During the entire summer they frequent almost exclusively a species of *Scrophularia* which grows in clumps in the sunnier spots of the valleys. From early dawn till dusk the Hummingbirds throng around these plants intent in surfeiting themselves on honey and the minute insects that the honey attracts. The scene presented in one of these flowering areas is a most attractive one. Males and females all flock to the common feeding ground, and as the Hummers, especially of the Rufous-backed species, are pugnacious and hot tempered in the extreme, the field becomes a constant battle-ground whereon favorite flowers and favorite perching grounds are contested for with all the ardor that attaches to more important conquests. The fiery red throat of the Rufous-backed Hummer is an index of its impetuous, aggressive disposition, and when brought into conflict with the other species it invariably asserts its supremacy and drives its rival in utter rout from the fields. Nor do the males of this species confine their warfare to their own sex. Gallantry has no place apparently in their breasts, and when conquest has put them in possession of a perch near a clump of flowers they wage war on all comers, females as well as males.

Nor is the pugnacity of this Hummingbird limited to attacks on other species. The presence of a male of its own kind is sufficient to arouse it to the highest pitch of fury, and should the contestants be equally matched they will seize each other by the bill and, using their wings as offensive weapons, fall to the ground, roll over and over in fierce strife until exhausted, or until one is worsted, when he is off like a bullet for less dangerous hunting grounds, followed by the exulting victor, who, however, soon gives over pursuit and returns to the perch he has so well won, to preen his disordered plumage and make ready for a fresh contest.

When the attack is urged against the males of the Broad-tailed species

the contest is less fierce, the latter species usually abandoning the ground in hot haste. The latter result always follows the assault of a male upon the females who, if less valiant in battle, are scarcely less backward when it comes to the assertion of their rights against Intruders of their own sex. The rivalry the females display is not less marked if the battles it prompts are less fierce than when the males are engaged; occasionally the females will fight with all the ardor displayed by the males. The mimic contests thus hinted at rather than described—for the fury and spirit displayed in their battles must be seen to be appreciated—are continued all day long, and were the strength of the combatants at all proportionate to their fury the problem of Hummingbird life would simply resolve itself down to a question of the survival of the strongest. But the tiny strength of these pygmies, through backed by never so much warlike spirit, is scarcely sufficient to detach a feather from each other's gleaming bodies; and even at the close of the season the male birds show little wear and tear, and are in prime condition as regards their plumage.

If they have occasion to fear each other—and sometimes I have thought they fight merely for the pure fun of it—they fear nothing else. About our camp, where were a few clumps of the *Scrophularia*, they were especially fearless, and provided one remained reasonably quiet they would approach within two or three feet. When in such proximity their sharp eyes were constantly on the watch, and a hostile movement sent them away like streaks of flame. By gradual approach, however, I was able on several occasions to strike one down with my hat and secure it uninjured before it recovered either presence of mind or strength to get on wing.

Some idea of the number of Hummingbirds in this locality—and in this respect this whole mountain area is alike—may be gained from the statement that in a single clump of the *Scrophularia* I have counted eighteen Hummers, all within reach of a ordinary fishing rod. There was scarcely a moment in the day when upwards of fifty could not be counted within the area of a few yards in any of the patches of this common plant.

As to their nesting, it is a curious and almost unaccountable fact that notwithstanding their great numbers we found but a single nest, and this after it was deserted. Inquiry among the settlers showed that they had never chanced upon their nests, and I judge that the greater part nest, as I found to be the case in Arizona, in the upper limbs of the pines; occasionally they nest lower. The one I found was on a dead aspen, not more than ten feet from the ground. At the time when they are building their nests may be readily found. One has only to follow the birds straight to their nesting-sites as they bear away material in the shape of conspicuous tufts of cottony down from the willows.

It seems as though *S. rufus* must breed rather less abundantly in this locality than *S. platycercus*; at all events, while the former was much less common at and for a considerable time after the date of our arrival, by August 1, when the males of *S. platycercus* had about disappeared, the

males of the former species were more numerous than ever. This fact is attributed to a migration from somewhere further north, though this locality is, in truth, about the most northern limit of the species in the Rocky Mountains.

A single *S. rufus* was seen September 15. It was the last bird of the season.

56. *Stellula calliope*. CALLIOPE HUMMINGBIRD.— This, the most diminutive of our Hummers, is rather numerous in summer in the locality in question, much further north than which it does not go. The species has not yet been detected in Colorado, though I doubt not but that the higher mountains of the southern portion of that State afford a summer home for some of them. It is a curious fact in connection with the history of this species, as well as that of the *S. rufus*, that while both of them range far to the northward in the Sierra Nevada, reaching Washington Territory, and even going beyond into Alaska, they yet decline to visit even the middle portion of the Rocky Mountains, but confine their range to their southern parts. The Calliope Hummer is, as compared with the other species mentioned, a rare bird. It is also much less obtrusive, and in the contests of its larger neighbors it takes no part. When assailed, as it promptly is by the other kinds, it at once darts away to another spot where it can feed without molestation. It appears to be timid in every way, so much so that it is not an easy bird to collect. An utterly unaccountable fact noticed in connection with this species was the apparent rarity of females. Up to August 10 I had seen perhaps half a dozen, though constantly on the watch for them, while I had certainly seen not less than ten times that number of males. Subsequent to that date I saw a few more, but nothing like the number of males.

By September the young were numerous in certain localities, notably in a large sunflower patch.

57. *Cypseloides niger borealis*. BLACK SWIFT.— A single one was seen in September, evidently migrating.

58. *Phalænoptilus nuttalli*. POOR-WILL.— Evidently a rare species in this particular locality. Two only were obtained. This species is extremely local and may be abundant in one locality and entirely wanting a few miles away.

59. *Picus villosus harrisi*. HARRIS'S WOODPECKER.— Numerous as a summer resident.

60. *Picus pubescens gairdneri*. GAIRDNER'S WOODPECKER.— Not uncommon, though much less common than the preceding, which, indeed, appears to be the case almost everywhere where found.

61. *Picoides tridactylus dorsalis*. STRIPED-BACKED THREE-TOED WOODPECKER.— Rather common as a resident. Inhabiting the pine woods comparatively little, but frequenting the stretches of dead and fire-blackened timber.

62. *Sphyrapicus varius nuchalis*. RED-NAPED WOODPECKER.— Common as a summer and fall resident. Lives entirely among the deciduous trees, as aspens, etc.

63. *Sphyrapicus thyroideus*. BLACK-BREADED WOODPECKER.— Common as a summer and fall resident.

64. *Melanerpes formicivorus bairdi*. CALIFORNIAN WOODPECKER.— The status of this Woodpecker in the region under consideration is a little difficult to understand. This is probably about its northern limit in the Rocky Mountain region, and it may summer in the lower portions of the mountains. The first individuals were seen August 27, and it soon became rather numerous. Probably in all not less than fifty were seen. It was noticeable that it frequented the locality of certain small oak groves. In fact, it is doubtful if the bird ever occurs, at least in United States, apart from these trees. No indication of its well known habit of storing away acorns in holes was detected.

65. *Colaptes auratus mexicanus*. RED-SHAFTED FLICKER.— A common summer resident.

66. *Ceryle alcyon*. KINGFISHER.— Does not breed in this locality. Several were seen along the stream in the fall, when they secured a good harvest of small trout.

67. *Strix occidentalis*. SPOTTED OWL.— The single individual of this species that was detected was shot August 20. Whether it breeds here or not, or how common it is, are utterly unknown.

68. *Bubo virginianus subarcticus*. WESTERN HORNED OWL.— Numerous, and doubtless a constant resident.

69. *Glaucidium gnoma*. CALIFORNIA PIGMY OWL.— This little Owl was numerous, as it appears to be everywhere throughout the Southern Rocky Mountains. It is known to occur as far north as the neighborhood of Colorado Springs, where it has been taken by Mr. Aiken. Its small size and unobtrusive habits render it peculiarly liable to be overlooked, even where it may be not uncommon. It is very apt to take its station early in the morning on the topmost or outermost branch of an old stub, waiting for the sun that it may enjoy the warmth of its rays.

There is a ready method of detecting the suspected presence of this little Owl, and this is by imitating its notes, which can be done to a nicety. The little fellows are extremely sociable in disposition, as witness the fact that one is rarely found alone. In fall, in fact, they are usually met with in companies.

When awake and on the alert they are prompt to answer the call of a supposed lonely comrade, and I have frequently called them to me when half a mile distant, and this, too, when I took the initiative in calling. When the Owl calls first he can be lured close up enough to be interviewed with almost perfect certainty. Curiously enough, they do not appear to detect the fraud, even though one be standing at the foot of the very tree they may be concealed in. I have stood or walked around a tree for a half hour trying to detect the exact whereabouts of one of these little Owls when he was whistling back at me every moment, and when, of course, I must have been visible most of the time.

They shelter themselves from sun and rain, and from prying eyes, as do larger Owls and Hawks, by standing on a limb close up to the body

of a tree where they can be detected only by the most patient search. In very inclement weather I presume they ensconce themselves snugly in some of the innumerable cavities in old stubs.

70. *Æsalon columbarius*. PIGEON HAWK.—Not uncommon.

71. *Tinnunculus sparverius*. SPARROW HAWK.—Numerous, chiefly in fall.

72. *Pandion haliaëtus carolinensis*. FISH HAWK.—Several seen in fall. Very destructive to trout.

73. *Accipiter cooperi*. COOPER'S HAWK.—Common.

74. *Accipiter fuscus*. SHARP-SHINNED HAWK.—Common.

75. *Astur atricapillus striatulus*. WESTERN GOSHAWK.—Several were seen in fall.

76. *Buteo borealis calurus*. WESTERN RED-TAIL.—The most abundant of all the Hawks. Very numerous and resident.

77. *Aquila chrysaëtus canadensis*. GOLDEN EAGLE.—Rather common as a summer resident.

78. *Cathartes aura*. TURKEY BUZZARD.—Common.

79. *Columba fasciata*. BAND-TAILED PIGEON.—None of these birds nested near our camp, though they probably did not far away. The latter part of August they were found feeding upon the berries of the *Sambucus racemosa*, a small shrubby plant, from two to four feet high. Subsequently, when the acorns began to grow large—long before they began to ripen—they appeared to devote themselves exclusively to them, and between the Pigeons and the squirrels, not an acorn was allowed to ripen. The acorns were of the scrub oak, *Quercus undulata* (two varieties), and are extremely palatable. Pigeons were shot not only with their crops full, but with the gullet crammed up to the very bill.

80. *Meleagris gallopavo*. MEXICAN WILD TURKEY.—Turkeys are found all through the mountains, but they are by no means common. As winter approaches they leave their summer haunts and travel down to the foot-hills and the mesas, where they remain till the snow goes, when, like the deer, they return.

81. *Canace obscura*. DUSKY GROUSE.—Not abundant, though generally distributed through the mountains.

82. *Tringoides macularius*. SPOTTED SANDPIPER.—This ubiquitous little Sandpiper was found along the Pecos at various points, and the fact that it breeds at an altitude of about 8000 feet was attested by the presence of young just out of the shell.

83. *Nettion carolinensis*. GREEN-WINGED TEAL.—This chanced to be the only species of Duck noticed. Ducks drop in here by the merest accident in spring and fall, and doubtless at one time or another most of the migrating species occur along the river.