

The first extensive wanderings of the Evening Grosbeaks, as far as we know, appear to have occurred in 1871, when they extended south into Illinois and east into Ontario. In 1879 they were found in localities as far apart as Charles City, Iowa, and Grand Rapids, Michigan. In the winter of 1886-87 they were reported from Nebraska, Iowa, Illinois, Kentucky, Indiana, Michigan, Wisconsin, New York, and Ontario. That year they appear to have been most common in the States of Iowa, Indiana and Illinois, and the area of eastern North America covered was the greatest known up to that time, but this was very much exceeded by the wide distribution of the species in the winter of 1889-90, when, although they do not appear to have been as numerous in some localities as in the last preceding dispersal, they reached nearly to the Atlantic coast at several localities. It will be noted, however, that we lack information concerning their movements that winter west of the Mississippi. Now that the number of observers is sufficient to note the movements of these birds with reasonable accuracy, it seems probable that much more may be learned of their winter range. In conclusion I beg to express my appreciation of the kindness of Dr. C. Hart Merriam, in affording me valuable assistance in preparing this paper.

A PRELIMINARY LIST OF THE BIRDS OF SAN JOSÉ, COSTA RICA.

BY GEORGE K. CHERRIE.

(Continued from p. 27.)

58. *Euetheia pusilla*.—Common resident. Found on both Atlantic and Pacific sides of the Cordillera, but not lower down than 2000 feet altitude. The preceding and the present species are frequently kept in cages; the song is short, without variation, yet rather pleasant.

59. *Passerina cyanea*.—Rarely met with about San José, and then only immature birds during the months of October and November. Adult birds are tolerably common in the low country on both coasts until as late as the twentieth of March.

60. *Zonotrichia capensis costaricensis*.*—Abundant resident. Four or five broods are reared each year. The breeding season commences early in April and continues until the last of August. Ordinarily the nest is placed on or near the ground, in some low bush or shrub. Much individual taste is displayed in the locality selected and in the materials used in construction. Often one may find a nest at the very doorway of his house in the middle of the city, or again in the fields far from any habitation, while its owner is equally happy in either place and always full of song. Of the half dozen nests before me, the three that were built in bushes, from one to three feet above the ground, are quite bulky, constructed outwardly of dry grass stems and rootlets, inwardly of fine soft grass. Two of the nests have a scanty lining of horse-hairs, while the third is well lined with soft, white, chicken feathers. The nests that were built on the ground are much more compactly built, there is less of the rough, bulky exterior, while the layer of soft, fine grass is much thicker. Two of the nests are without the lining of horse-hairs or feathers. One is lined with green feathers of the Yellow-headed Parrot (*Amazona auropalliata*). The average inside measurements are 1.50 inches in depth by 2.00 in diameter. A nest taken in San José, June 30, 1890, presents some peculiarities, the owner having appropriated to itself the old nest of a *Merula grayi*, only adding a lining of soft, dry grass, and this chiefly at the upper edge so as to contract the rim, and then an inner lining of a few horse-hairs. It measures 2.25 inches in diameter by 2.00 deep. The nest of the Thrush had measured 4 inches in diameter inside. The outside measurements of the entire nest are 6.50 inches in diameter by 3.00 deep. When first taken the structure was very pretty, being completely covered with bright green moss.

The eggs are a rather pale glaucous green, speckled with walnut brown, the spots thickest about the larger end. Some eggs are blotched with walnut brown in a band about the larger end; such have very few specks about the smaller end. The average measurements of a dozen eggs are .79 X .54 inch.

This Sparrow is found abundantly up to an elevation of about 7000 feet and down to within a thousand feet of the coast level. It is distinctly a bird of the open country.

61. *Spiza americana*.—Rare about San José. Arrives about Sept. 27, and is not seen after April 20. Birds in young plumage greatly predominate.

62. *Pyrgisoma cabanisi*.—Common resident, frequenting the hedgerows in the outskirts of the city. It is seldom seen far from the ground, usually scratching about among the dry leaves. Several broods are reared each year. Young birds just able to fly are taken as early as June 6, and as late as November 10. A nest of this species taken June 5, 1889, was found on the ground in a slight hollow at the foot of a few stalks of sugar cane. It was composed chiefly of dead and rotting grass stems,

* Allen, Bull. A. M. N. H., Vol. III, p. 374.

lined with fine rootlets and a few horse-hairs. It measures inside 2.75 inches in diameter by 1.50 in depth. The nest contained two fresh eggs, white with a faint bluish tinge, thinly speckled with cinnamon except at the larger end where the spots are more of a chestnut, larger, and crowded together, forming a distinct band. The eggs are elliptical ovate and measure .91 X .64 and .90 X .66 inch.

Young birds differ decidedly from the adult, and may be described as follows: (♂ juv., no. 4977, M. N. de C. R., San José, June 6, 1890, Geo. K. Cherrie). Above, bistre brown with olive shading; less olive and deeper brown on crown and occiput; most of the feathers with a blackish bar across the tip, giving the back a somewhat mottled appearance. Wing-coverts olive brown, the greater series tipped with tawny olive, forming a distinct band. Remiges dusky. Forehead and auriculars black. Cheeks and loreal region whitish, mottled with dusky. Throat whitish, faintly speckled with dusky tips to the feathers. Breast and sides dusky wood-brown, becoming paler and more buffy on belly and crissum. Breast and belly with distinct dusky stripes. The adult plumage is attained by the first moult, which goes on comparatively slowly, requiring about three months for its completion. The plumage of the young has almost entirely disappeared below, before the moult commences on the back.

I have not noted the species below an altitude of 2800 feet, nor above 5000 feet.

63. *Pyrgisoma leucotis*.—Rare about San José, but common enough at a slightly lower altitude. Its habits are similar to those of *P. cabanisi*. The nest and eggs I have not met with, but several broods of young are reared each year, birds just from the nest being found from June until November. I think birds do not attain the completely adult plumage until the second year, differing, however, only in having a dusky olive brown head, instead of black, and the upper back more ashy. Young birds are very much browner above and are faintly mottled with blackish tips to many of the feathers. The throat is blackish, breast dusky olive mottled with dusky, belly olive yellowish, crissum and flanks rufous.

64. *Spinus mexicanus*.—Tolerably common resident.

65. *Eucorystes wagneri*.—Seldom met with about San José. I think that only one brood of young is reared each year. Young birds are uniform black above with a slight gloss, rump brownish. The crown and occiput and sides of head are like the back, but there is a broad pale yellowish supraloral stripe extending to just back of the eye; in some examples the yellowish color meets in a band across the forehead. Throat, breast, belly and thighs dusky blackish with faint brownish shade; crissum tawny.

66. *Amblycercus holosericeus*.—Not common in the vicinity of the city. Common on both the Atlantic and Pacific slopes down as far as the coast, and I have taken examples at an altitude of over 6000 feet. The young do not differ from the adult.

67. *Icterus spurius*.—Migrants arrive as early as July 31, and linger until as late as March 12. Birds in young plumage predominate.

68. *Icterus galbula*.—Not nearly as common as the preceding species, appearing much later in the season, not having been noted earlier than October 5. In the spring I have seen birds as late as March 16.

69. *Callothrus robustus*.—Common resident, but much more abundant during the dry season. Are gregarious, associating in large flocks. For description of the eggs see page 26 of the present volume.

70. *Sturnella magna mexicana*.—Common resident.

71. *Psilorhinus mexicanus*.—Common resident. Somewhat gregarious. The plumage of the young does not differ from that of the adult. Only one brood is reared each year. As far as my observations have gone they are not found below an altitude of 2500 feet nor above 4500.

72. *Xiphorhynchus pusillus*.—Accidental visitor in the vicinity of San José. A single specimen was taken August 26, 1891.

73. *Thamnophilus doliatus*.—I shot a single straggler from the coast region November 23, 1890. Found only on the Pacific side of the country.

74. *Sayornis aquatica*.—Tolerably common resident. I have not seen either nest or eggs, but breeding evidently commences early in February. A female taken February 16, 1890, had the oviduct enlarged.

75. *Todirostrum cinereum*.—Tolerably common resident. For notes on the nidification see this journal, Vol. VIII, p. 233.

76. *Tyranniscus parvus*.—Oct. 13, 1889, a single female was taken near the city, — the only example I have seen at this altitude.

77. *Elainea pagana subpagana*.—Abundant resident. I have already described the nesting habits of this species (see this journal, Vol. VIII, p. 235).

78. *Legatus albicollis*.—Rare. Two specimens have been taken in the vicinity of San José, both males, the first, July 29, 1889, and the second June 7, 1891. Dr. Don Francisco Castro secured a female and two young at San Sebastian a few miles south of San José. They were taken July 14, 1891. The young birds are darker above than the adult. The crown is almost black and without indication of the concealed spot of sulphur yellow. The superciliary stripe and band across the nape are much broader and tinged with buffy. The greater and median coverts are rather broadly tipped with vinaceous cinnamon, the lesser coverts, feathers of the rump, upper tail-coverts, and rectrices (except the outer pair) are edged and tipped with brown, more of a chestnut hue. Below, much paler, straw yellow, and with the dusky striations confined to the breast; sides and flanks almost immaculate.

79. *Myiozetetes texensis*.—Tolerably common. For notes on nesting habits see this journal, Vol. VIII, p. 235. Young birds do not differ from the adults.

80. *Pitangus derbianus*.—Rare about San José.

81. *Myiodynastes luteiventris*.—Rare visitor in the neighborhood of San José.

82. *Myiodynastes audax*.—Rare resident.

83. *Megarhynchus pitangua*.—Tolerably common. Somewhat gregarious, or perhaps it is only the members of single families that appear to remain together for some months after the end of the breeding season. Señor Alfaro secured a nest at Alajuela, May 18, 1888. Incubation was far advanced. The eggs are white, blotched and speckled with seal brown; only two were found with the nest; they measure $.94 \times .72$ and $.1.05 \times .76$ inch. The nest is very roughly constructed of strips from banana leaves, a few rootlets, and plant fibres, without any lining.

84. *Empidonax flaviventris*.—Somewhat rare at San José and only noted during the months of September and October. The earliest arrival Sept. 3, and the latest record Oct. 27. Tolerably common lower down on both coasts where it is found until as late as May 13.

85. *Empidonax acadicus*.—Tolerably common from about September 17 until May 11. They are found on both coasts and up to an altitude of about 6000 feet.

86. *Contopus virens*.—Tolerably common from about August 20 until April 29.

87. *Contopus richardsoni*.—Typical examples arrive later and disappear earlier than birds of the preceding species.

88. *Contopus borealis*.—Never common, but seen occasionally from October 2 until May 7.

89. *Contopus brachytarsus*.—A rare bird in Costa Rica. There are only three examples in the collection of the Museo Nacional; two were taken at San José, one October 2 and the other August 27.

90. *Myiarchus crinitus*.—Very rare transient visitor at San José, but fairly common on both coasts during the winter season in the north.

91. *Myiarchus lawrencei nigricapillus*.—Common resident.

92. *Tyrannus melancholicus satrapa*.—Abundant resident. Breeding commences the latter part of June and continues throughout August. Young birds resemble the adults, lacking only the concealed crown patch.

93. *Milvulus tyrannus*.—Resident, but much more abundant at some seasons than at others;—that is, immediately after the breeding season (from the latter part of April until the first of July) they become quite common about the suburbs of the city, and remain so until the middle of December.

(To be continued.)