

2. In 1948 No. 16 mated with female No. 42-196907, nesting somewhat later than the other breeding birds in the colony, and with a week's delay during nest construction. The nest was placed only six feet from the top of the shaft in B1. On July 12 a heavy rain washed the nest with its three eggs off the wall. The parent birds then separated.

3. In 1949 No. 16 mated with female No. 42-188550 in B1. Again there was delay in nest construction and it was placed only 6.6 feet down in the shaft. A week after three nestlings had hatched the nest was washed away during a rainstorm. Two nestlings survived and were cared for at the bottom of the shaft.

4. In 1950 the same parents returned to the same shaft, were slow in nest building, and placed it in the same precarious position. Ten days after two eggs hatched the nest was washed from the wall for the third time. The nestlings survived the crash and were attended at the bottom of the shaft.

5. In 1951 No. 16 went into shaft E6 and mated with No. 42-196904. Their nest was placed 8.1 feet from the top and remained on the wall just long enough for nesting to be completed before it, too, was washed away.

Kent State University, Kent, Ohio, September 18, 1951.

BIRDS FROM POPOCATÉPETL AND IXTACCÍHUATL, MEXICO.

BY RAYMOND A. PAYNTER, JR.

DURING a recent expedition in Mexico, a short collecting trip was made to the mountains of Popocatépetl and Ixtaccíhuatl on the border of the states of Mexico and Puebla. A period from October 31 through November 5, 1950, at altitudes of over 3,000 meters, yielded a collection containing 29 species. Except for a few forms that were observed but not collected and, without doubt, some rarer species that were not seen, the collection probably very nearly represents the total number of forms found above 3,000 meters at that season and year. However, the fall and winter of 1950-51 were unusually cold, with the snow-line considerably lower than in most years, and more species probably would be found in a milder year during the same period.

Although many records from Popocatépetl and Ixtaccíhuatl appear in 'Biologia Centrali-Americana' and various taxonomic papers, there appears to be no published study concerned solely with the distribution of the avifauna on these two mountains.

I wish to thank the authorities of the Museum of Comparative Zoology, the Chicago Natural History Museum, and the American Museum of Natural History for loaning me comparative material in their care, and Dr. G. M. Sutton for generously allowing me to use specimens from his personal collection.

On October 31 a collection was made on the northern slope of Popocatepetl at an altitude of 4,050 meters, at which point the pines reach their upper limit. Lumbering operations have thinned the forests and large areas are now covered with grass and only a few trees. Juncos, bluebirds, nuthatches, and chickadees were abundant.

November 1 was spent on the southern slopes of Ixtaccihuatl from an altitude of 4,080 meters down to about 3,800 meters. The pines there are considerably more abundant than in the region covered on the first day. Woodpeckers were particularly abundant, and sparrows were found in great numbers in treeless weedy areas.

On November 2 work was conducted on the eastern side of the pass between the two mountains, known as Cortez Pass, at an elevation of around 3,800 meters. This area has been extensively lumbered, and the trees are widely spaced, giving a rather park-like appearance. Flickers, creepers, and wrens were more abundant there than in the other areas in which we worked.

On the third of the month we worked at an altitude of 3,280 meters on the slopes of the western side of the pass. The region is thickly wooded with pines, firs, and deciduous trees. Collecting was strikingly poor, in spite of the varied vegetation, presumably because the temperature was near the freezing point and the area was shadowed by a large cliff for the greater part of the morning.

The fourth and fifth of the month were spent slightly farther down the western side of the pass at an altitude of 3,230 meters. Mixed firs, and a few pines, interspersed with abundant second growth and grassy patches, afforded diverse habitats suitable for many species. Our best collecting was found there. Undoubtedly, further work would have added some of the less abundant species to the collection, but unforeseen circumstances made it necessary to terminate our work prematurely.

ANNOTATED LIST OF SPECIES COLLECTED AND OBSERVED

Coragyps atratus (Bechstein). BLACK VULTURE. Vultures were observed every day in small numbers. Although there seemed to be little carrion available, they were often seen soaring high above Cortez Pass.

Falco sparverius subsp. SPARROW HAWK. In the meadows between the mountains, Sparrow Hawks were regularly seen perched on slight rises or rocky outcrops. A few were also noted in the less dense pine regions.

Glaucidium gnoma gnoma Wagler. PYGMY OWL. The only specimen secured, a female on Nov. 4, was perched on a dead limb in a patch of sunlight within a dense forest. It weighed 54.3 grams. No others were seen or heard.

Hylocharis leucotis leucotis (Vieillot). WHITE-EARED HUMMINGBIRD. Two males taken on Nov. 3. This wide-ranging species was fairly common where lumbering operations have thinned the forest and permitted the growth of low bushes and flowers. One bird had small gonads and weighed 4.0 grams, whereas the other, which weighed 3.7 grams, had enlarged testes. Apparently the breeding season of this species is variable as well as extended. The 'Check-List of the Birds of Mexico' (Friedmann, Griscom, and Moore, 1950:169) lists birds in breeding condition in January through March, and May through August, and to this now may be added a November record.

Lampornis clemenciae clemenciae (Lesson). BLUE-THROATED HUMMINGBIRD. One male taken Nov. 5. This immature bird, with its rectrices partially sheathed, was the only one of its species seen. Its weight was 9.5 grams.

Colaptes cafer mexicanus (Swainson). MEXICAN RED-SHAFTED FLICKER. Flickers were common in the rather open forests on the eastern side of the pass, but they were difficult to collect owing to their excessive shyness. They were also seen at times in the firs, but they were not so abundant as at higher altitudes. The only specimen taken, a female on Nov. 2, weighed 116.5 grams.

Dendrocopos stricklandi aztecus Moore. AZTEC WOODPECKER. One male, Oct. 31; three males and one female, Nov. 1. I have not had an opportunity to compare these birds with other material, but Moore (1946) includes Popocatépetl within the range of *D. s. aztecus* and states that birds from there are intergrades. This is borne out by the moderate streaking on the posterior underparts of my specimens, rather than the immaculate white which Moore has described in typical *aztecus*. Aztec Woodpeckers were very abundant in the open pines at the foot of Popocatépetl, but they were not seen at lower altitudes. The males weighed 35.9, 36.7, 37.8, and 40.3 grams, and the female, 34.0 grams.

Corvus corax subsp. RAVEN. Ravens were seen daily from the highest altitudes at which we worked down to the fields outside of Amecameca.

It was surprising that *Aphelocoma coerulescens* was not recorded since Stone (1890:214) found it up to 11,000 feet on both mountains.

Parus sclateri sclateri Kleinschmidt. MEXICAN CHICKADEE. One male, Oct. 31; 1 male, 1 female ?, and 1 ?, Nov. 1. The two males weighed 9.8 and 10.1 grams, and the two specimens of doubtful sex 10.1 and 10.5 grams. Chickadees were common in the pines but were seldom seen farther down the mountains.

Sitta pygmaea chihuahuae van Rossem. CHIHUAHUA NUTHATCH. Four males and 1 female, Oct. 31. These five specimens, all in fresh plumage, are indistinguishable from specimens of *chihuahuae* from Durango and Chihuahua. The weights of the four males were 9.9, 10.0, 10.0, and 11.4 grams. An adult male from Laguna del Progreso, Durango, in the collection of the Chicago Natural History Museum, weighed 9.7 grams. Nuthatches were very abundant in the pines at the first three collecting stations, but they were not seen below these altitudes.

Sumichrast (1869: 544) has recorded *Sitta carolinensis* from Popocatépetl, and Stone (1890:217) recorded it from Ixtaccíhuatl, but none was seen during our collecting.

Certhia americana alticola G. S. Miller. EAST MEXICAN CREEPER. One male and 1 ?, Nov. 2; 1 ?, Nov. 3. Creepers were found at all stations, but they were most common in the open pines. The male weighed 9.0 grams, and the two unsexed specimens, 6.9 and 7.9 grams.

Heleodytes megalopterus megalopterus (Lafresnaye). HUITZILAS CACTUS WREN. One male and 2 females, Nov. 5. Cactus wrens were only found in a glen of mixed coniferous and deciduous trees where a pair of noisy birds flew to the top of a flowering tree about 20 feet high, which was just receiving the first sun of the morning. These birds were collected and proved to be a male and a female. In a short while another pair flew into the same tree and a female was collected. The remaining bird stayed close by, calling loudly as the mate of the first bird had done, but remained well concealed and could not be collected. The male weighed 33.5 grams, and the females, 33.0 and 32.8 grams.

Troglodytes brunneicollis culequita van Rossem. BROWN-THROATED WREN. One male, Nov. 1; 1 male, and 2 females, Nov. 2; 1 female, Nov. 3. These wrens were common at higher altitudes where they were found in underbrush or in high grass. The two males weighed 12.4 and 12.6 grams, and the females, 11.5, 12.1, and 12.6.

A series of over 160 specimens of this montane species has been assembled from nearly all the localities where it is known to occur. Although there are no records from several states of central Mexico, where future collecting will undoubtedly reveal its presence, it seems well to review briefly its known distribution. A number of races have been described during the last 15 years, and the literature is in considerable confusion. I have not seen specimens of *T. b. vorhiesi* which has been described by Brandt (1945) from the Huachuca Mountains of Arizona, and the discussion must be confined to Mexican birds.

Four of the five Mexican races that I have been able to recognize show a cline toward lighter coloration from south to north. Although collecting has been spotty, a number of areas of intergradation are apparent. The fifth race, a population in southern Jalisco and western Michoacán, is lighter ventrally than more southern birds, but the coloration of the upper parts is quite distinct.

On the whole, immature specimens are of little aid in racial identification. They are usually considerably darker than mature birds, with reduced barring on the back and lower abdomen and flanks, and are squamated on the breast and throat. These characters vary considerably within a population, although the south to north cline in coloration is usually apparent if a sufficiently large series is at hand.

The adults in a given population are somewhat variable also, but not to the extent of the immatures. No consistent differences in the wing, tail, or bill measurements between adult populations are evident. The sexes are alike.

The various races may be characterized as follows:

Troglodytes brunneicollis brunneicollis Sclater.

Troglodytes brunneicollis Sclater, Proc. Zool. Soc. London, 26: 297, 1858. (La Parada, six leagues from Oaxaca, Oaxaca.)

Synonyms.

Troglodytes brunneicollis nitidus Nelson, Proc. Biol. Soc. Wash., 16: 158, 1903. (Mount Zempoaltepec, Oaxaca.)

Troglodytes brunneicollis guerrerensis van Rossem, Bull. Brit. Ornith. Club, 59: 12, 1938. (Omiteme, Guerrero.)

This is the darkest of the five races. It most nearly resembles *culequita*, but the ventral barring is more distinct, often extending well forward on the abdomen, and the brown of the underparts is usually darker. The back is less grayish-brown, and the barring is usually more extensive and distinct.

I agree with van Rossem (1938:13) that *T. b. nitidus* Nelson, which was described from Mount Zempoaltepec, Oaxaca, is indistinguishable from the nominate race.

However, neither am I able to discern any constant differences between topotypic material of *brunneicollis* and that of *T. b. guerrerensis* van Rossem from the state of Guerrero. A few specimens from Guerrero are duller brown above, but the same variation can be found in the limited Oaxacan material available.

One specimen from Tetela del Volcan, Morelos, is referable to *brunneicollis* whereas two others from the same locality are nearer to *culequita*. The range of the nominate race may then be defined as including Oaxaca and Guerrero, with intermediates in Morelos.

Troglodytes brunneicollis culequita van Rossem.

Troglodytes brunneicollis culequita van Rossem, Bull. Brit. Ornith. Club., 59:13, 1938. (Coajimalpa = Tacubaya, Mexico, D. F.)

This race is intermediate in coloration between *brunneicollis* in the south and *compositus* in the northeast. It differs from the nominate race as has been noted and from *compositus* in being slightly darker both dorsally and ventrally with more distinct barring on the lower abdomen and flanks.

It is found in Mexico, D. F., and the states of Mexico, Puebla, Tlaxcala, Veracruz, and Hidalgo.

Troglodytes brunneicollis compositus Griscom.

Troglodytes brunneicollis compositus Griscom, Bull. Mus. Comp. Zool., 75: 395, 1934. (Galindo, Tamaulipas.)

As may be seen from the above, *compositus* is lighter and less heavily barred above and below than *culequita*, and darker and more heavily barred than *cahooni*.

The range is San Luis Potosí, western Tamaulipas, Nuevo Leon, and at least south-eastern Coahuila from Sierra Guadalupe, the only locality in the state from which specimens are available.

Troglodytes brunneicollis cahooni Brewster.

Troglodytes cahooni Brewster, Auk, 5: 94, 1888. (near Oposura = Moctezuma, Sonora.)

This is the lightest of the races. The brown of the ventral region is much paler and the barring less distinct. The upper parts are grayish-brown and the barring is often considerably reduced and confined to the mid-back.

It is found in eastern Sonora as a summer visitant (van Rossem, 1945: 190), and as a resident in Chihuahua, Durango, and in Jalisco as far south as Guadalajara.

Troglodytes brunneicollis colimae van Rossem.

Troglodytes brunneicollis colimae van Rossem, Bull. Brit. Ornith. Club, 59: 14, 1938. (Sierra Nevada de Colima, Jalisco.)

This dark race is slightly lighter than the nominate race in the coloration of the underparts, but the barring is less extensive and intense, in which respect it is very much like *culequita*. The back is usually dark reddish-brown and the rump lighter, differing quite radically from *brunneicollis*. The race as a whole is variable and often single specimens from a given locality are difficult to place, but with a series the characters are always evident in at least a majority of the specimens. The immature birds are much more heavily squamated than are birds of equal age from any other race, and the brown of the ventral region is often quite grayish.

In Jalisco the race is confined to the southernmost part of the state and extends at least as far east as Pátzcuaro, Michoacán. Specimens from Guadalajara show no approach to *colimae*, even though the distance from that locality to the Sierra Nevada de Colima is less than the distance from those mountains to Pátzcuaro.

Turdus migratorius permixtus Griscom. ROBIN. One male, Nov. 4. The problem of defining and distinguishing the races of Mexican robins is difficult and not settled to my satisfaction. I have at hand a series of nine specimens from Guerrero, five from Tamaulipas, one from Cortez Pass, Mexico, and a male and a female taken in December on Isla Holbox, off the coast of Quintana Roo. This series is not large enough to attempt any detailed study of *Turdus migratorius* in Mexico, but a few general observations may be of use to future students.

All the resident Mexican robins can be distinguished easily from *T. m. propinquus* by their smaller size. I have been unable to discover any size difference between *permixtus* of Guerrero and *phillipsi* of Tamaulipas, but the latter series has only one male and the former series only two females, and therefore comparison is difficult and uncertain. However, mature birds from Guerrero and Tamaulipas, taken in the same season, are generally distinguishable if allowance is made for foxing. The heads of *permixtus* are usually darker, the throats more heavily streaked, and the backs slightly darker. However, the latter character alone is not always a reliable means of identification. Several specimens from Guerrero are considerably darker below than any from Tamaulipas, but the variation in color of the under parts is so wide, I am doubtful of its usefulness in identification. Possibly a larger series would bring out a consistency which is now obscured. Only a few specimens show all three principal characters, but a combination of two characters is usually found.

The single specimen from Cortez Pass matches a specimen from Guerrero, except for its bill which is entirely dark, and in that respect it differs from all the specimens at hand. It therefore appears that the range of *permixtus* should be amended to include the Popocatépetl-Ixtaccíhuatl region. Material from the state of Morelos would be of great interest.

The two specimens from Isla Holbox pose another problem. In the amount of streaking on the throat and the coloration of the head, they are very much like *permixtus*. The coloration of their backs approaches *permixtus* also but does not match exactly any of the series. Their measurements are perhaps the most strikingly different characters. The wing of the male is 130 mm. and that of the female 121 mm. Both of these measurements are distinctly smaller than those of any Mexican robins I have examined. The possibility that they are *achrusterus* is precluded by the presence of only a trace of white on the tips of the tails. It appears that these two birds represent an undescribed race. There are no previous records of robins from the Yucatan Peninsula, and it is doubtful that they breed on Holbox. Because of the known variation and difficulty in identifying Mexican robins, it seems best to defer naming this race until the breeding area and more specimens are known.

Myadestes obscurus obscurus Lafresnaye. BROWN-BACKED SOLITAIRE. Two males and 1 female, Nov. 5. Solitaires were fairly common in the thicker forests. They were not seen at higher altitudes. The two males weighed 43.0 and 41.0 grams, and the female, 44.1 grams.

Sialia mexicana australis Nelson. NELSON'S BLUEBIRD. Two males, and 1 female, Oct. 31; 1 male, Nov. 2. Bluebirds were abundant at the base of Popocatépetl, in the open pine region, and also on the eastern side of Cortez Pass. They were not seen at the base of Ixtaccíhuatl, presumably because the pines were too dense. The males weighed 26.7, 26.9, and 26.8 grams, and the female, 30.0 grams.

Regulus regulus aztecus Lawrence. GOLDEN-CROWNED KINGLET. Three males, and 1 female, Nov. 4. The systematic position of Mexican Golden-crowned Kinglets has been open to considerable debate. Lawrence described *aztecus* from a single specimen from Mexico, D. F. It is much darker below than any known specimens

and was considered by Nelson (1898: 160) as an unusually dark winter form of *olivaceus*. Dearborn (1907: 134) examined the type of *aztecus*, when he described *clarus* from Guatemala, and he too considered it a dark example of *olivaceus*. Hellmayr (1934: 511-512) questioned this identification and believed eventually it would be found that all Mexican kinglets could be placed with the Guatemalan race, since he had a specimen from Hidalgo which he assigned to *clarus*. However, more recently Wetmore (1941:565) examined the type of *aztecus* and stated that it agreed exactly with specimens from Guatemala, and therefore all the Mexican and Guatemalan birds should be united under the name *aztecus*.

The four fresh specimens from the Popocatépetl-Ixtaccíhuatl region are considerably darker ventrally than topotypic specimens of *clarus* and are darker than a series of *olivaceus* from the United States. On the back they are slightly darker olive-green than *clarus* and brighter than *olivaceus*. The specimen from Real del Monte, Hidalgo, that was examined by Hellmayr, is old and foxed, but it is darker below than specimens of equal age from Guatemala. It may be placed with the four fresh specimens if account is taken of its age. Dr. S. Dillon Ripley has kindly compared the type of *aztecus* with the four new birds and found that it is more olive-brown ventrally and on the nape. It is even more distinctive when compared with Guatemalan specimens, contrary to Wetmore's findings. Therefore, in Guatemala and Mexico there are three distinct color types, *i. e.*, the lighter Guatemalan birds, the darker birds from Popocatépetl, Ixtaccíhuatl, and Hidalgo, and the very dark specimen of *aztecus* from Mexico, D. F. It does not seem that a bird from the Federal District would be subspecifically distinct from birds a few miles to the east and to the north, but it does seem possible that Lawrence's specimen was an unusually dark representative of the local population. Since the birds from the surrounding region tend to be dark, this condition does not appear improbable, and, until there is evidence to the contrary, all the kinglets of Mexico should be united under the single name of *aztecus*. Birds from Guatemala are of the race *clarus*, and a few specimens from Chiapas, which I have at hand, seem also to belong to that race.

Regulus calendula calendula (Linnaeus). RUBY-CROWNED KINGLET. One male, Oct. 31; 1 male, Nov. 1; 1 male, and 1 female, Nov. 2; 1 male, Nov. 3; 1 female, Nov. 4; 1 female, Nov. 5. Common to abundant at all stations. The males weighed 6.0, 5.6, and 6.1 grams, and the females, 5.6, 5.4, 5.3, and 6.1 grams.

Ptilogonys cinereus cinereus Swainson. MEXICAN PTILOGONYS. Four males and 1 female, Nov. 4. Several large and noisy flocks of this species were seen on November 4. They were not seen at higher altitudes nor on the following day in the same locality. The males weighed 32.3, 32.9, 33.6, and 33.7 grams, and the female, 34.4 grams.

Vireo solitarius solitarius (Wilson). SOLITARY VIREO. One male, Nov. 4. The only specimen seen was secured in a fir. This apparently represents a new record for the state of Mexico and is an unusual altitude record. It weighed 15.5 grams.

Peucedramus taeniatus giraudi Zimmer. OLIVE WARBLER. Two males, Nov. 1. A number of Olive Warblers was found in a flock of mixed warblers and kinglets in a small clearing within the denser stand of pines, at the base of Ixtaccíhuatl. These were the only ones observed. Their weights were 9.5 and 10.3 grams.

Dendroica auduboni memorabilis Oberholser. ROCKY MOUNTAIN AUDUBON'S WARBLER. One male, Nov. 2. The only example of this species seen was taken in a small bush in an area extensively cleared by logging operations. The wing measures 85 mm., the tail, 62 mm., and its weight was 12.8 grams.

Dendroica townsendi (Townsend). TOWNSEND'S WARBLER. One male and 1 female, Nov. 4. There are very few published records of this warbler from Mexico.

The two specimens taken were found in the same fir at the same time. They were the only ones seen. The male weighed 9.1 grams and the female, 8.7 grams.

Ergaticus ruber ruber (Swainson). RED WARBLER. One female, Nov. 3; 1 male, 1 female, and 2 females ?, Nov. 4. Red Warblers were very common in the low second growth and found nowhere else. The male weighed 8.7 grams, the females, 8.1 and 8.2 grams, and the birds of questionable sex, 7.6 and 8.0 grams.

Basileuterus belli belli (Giraud). BELL'S WARBLER. One male and 1 female, Nov. 5. These warblers were seen on several occasions on the ground or in low second growth. They were not seen above the mixed coniferous and deciduous zone. The male weighed 10.7 grams and the female, 10.2 grams.

Icterus bullockii abeillei (Lesson). ABEILLÉ'S ORIOLE. Two males and 1 female, Nov. 5. All three specimens were collected in the same flowering tree. A mature male and female flew to the tree together, and when the male was shot the female stayed close by. Since both birds had reduced gonads, it would seem to indicate that this species remains paired throughout the year. The mature male and female weighed 36.5 and 33.0 grams, respectively, and the immature male, 31.0 grams.

Hesperiphona abeillei abeillei (Lesson). ABEILLÉ'S GROSBEAK. One male, Nov. 4; 3 females, Nov. 5. On November 4 a flock of five grosbeaks was seen high in a fir in a mixed forest. The birds were well-hidden, and the proportion of the sexes could not be noted. The following day a flock of over ten birds was seen within a few feet of the tree where it had been the previous day. The birds were difficult to observe clearly, but as they were frightened from tree to tree, after each specimen was collected, no males were seen. The male weighed 49.7 grams and the females, 47.1, 48.0, and 49.3 grams. All had reduced gonads.

Loxia curvirostra stricklandi Ridgway. STRICKLAND'S CROSSBILL. One male, Oct. 31. Unfortunately, this male with slightly enlarged testes was the only specimen of this interesting race which was secured. The wing measures 105 mm. and the culmen, which was measured by Griscom's method (1937:138), is 21 mm. Its weight was 38.9 grams. Several other crossbills were seen singly on October 31. On November 2 a male and a female were seen high in a pine on the western side of Cortez Pass. Although there were abundant pine cones at higher altitudes no more crossbills were seen during the remainder of our work on the mountains.

Pipilo erythrophthalmus vulcanorum Sibley. SPOTTED TOWEE. One female, Nov. 4. Towees were common in dense, brushy thickets in the zone of mixed firs, pines, and deciduous trees, but they were very difficult to collect owing to their secretive habits. A number of birds were collected but were too badly shot to preserve. The wing measures 85 mm. It weighed 45.5 grams.

Oriturus superciliosus (Swainson). STRIPED SPARROW. Two males, Oct. 31; 1 female, and 1 ?, Nov. 1; 1 male, Nov. 2. An examination of specimens from Chihuahua, Sonora, Durango, Jalisco, Veracruz, and the five specimens from Popocatepetl and Ixtaccíhuatl indicates that *O. s. palliatus* is untenable. van Rossem (1938: 127-128) named as the type specimen a bird collected in 1888 near Tutuaca, Chihuahua. It was described as differing from the nominate race in being paler throughout, redder dorsally, purer gray ventrally with the throat and median abdominal region nearly pure white, and with the central rectrices gray instead of olive or olive-brown laterally. It appears that these characters are a result of aging of the skin. A specimen collected at Pinos Altos, Chihuahua, in 1888 and another collected in 1892 and labeled as "N. Chihuahua" are indistinguishable from a specimen from Las Vigas, Veracruz, collected in 1897. The remainder of the material is at least 40 years old, except for the fresh specimens from Popocatepetl and Ixtaccíhuatl. The

new specimens differ from all the rest in being considerably browner, rather than reddish-brown, above. The head bands are chocolate rather than brown or reddish-brown, and the specimens are much grayer ventrally. The gray on the back and sides of the neck is very pronounced, in marked contrast to the older specimens. A bird from Orizaba, Veracruz, collected in 1910, most nearly approaches the fresh specimens in being darker above and grayer below.

These sparrows were very common in the meadows and open pines at the first three collecting stations. The male weighed 38.6 grams, the females, 39.4, 39.7, and 41.5 grams, and the unsexed bird, 38.5 grams.

Junco phaeonotus phaeonotus Wagler. MEXICAN JUNCO. One male and 1 ♀, Oct. 31; 1 male, Nov. 1; 1 male, Nov. 2. Juncos were common in any open area from the highest altitude to the patches of weeds at the roadside on the plain outside of Amecameca. The males weighed 19.7, 19.9, and 23.0 grams, and the unsexed specimen, 22.4 grams.

Spizella passerina subsp. CHIPPING SPARROW. One male, Nov. 2. This specimen, which weighed 10.9 grams, is in immature plumage and cannot be placed sub-specifically. The wing measures 68.5 mm. and the tail 58.0 mm.

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