Article III.—LIST OF MAMMALS AND BIRDS COL-LECTED IN NORTHEASTERN SONORA AND NORTHWESTERN CHIHUAHUA, MEXICO, ON THE LUMHOLTZ ARCHÆOLOGICAL EXPEDI-TION, 1890-92.

By J. A. ALLEN.

The expedition of Dr. Carl Lumholtz, under the auspices of the American Museum of Natural History, was primarily undertaken for research in the line of archæology. During the first two years of its work, however, some attention was given to general natural history, collections being made in zoölogy and botany. While only about fifty-five mammals were collected, they possess considerable interest. About one thousand birds were obtained, representing one hundred and sixty-two species. Unfortunately, however, most of the ornithological work appears to have been done during fall and winter, and thus the results are less satisfactory than would have been the case had collecting been more actively carried on during summer. The bulk of the collection consists of North American species, but the record of localities given below often affords definite information of much interest respecting their winter distribution.

The expedition set out from Bisbee, in southeastern Arizona, early in September, 1890, proceeding southward about two hundred and twenty-five miles to Bacadehuachy and Nacory, on the Rio Yaqui, passing the following places in the order named: San Pedro (32 miles south of Bisbee), Los Trincheras, Santa Barbara, Fronteras, Cachuta (102 miles south of Bisbee), Los Trinitas (129 miles south of Bisbee), Los Pinitos, Los Cuevas (alt. 1750-2300 feet), Oputo, Granados, Bacadehuachy (the last three on the Rio Yaqui). Thence turning eastward toward and across the Sierra Madre the following were passed: Nacory (alt. 3400 feet), Heurachi (alt. 4000 feet), Napolera, El Puerto (alt. 6300 feet), Bavispee River (on its extreme upper course), Rancheria de los Apaches (alt. 6620 feet), Chuhuachupa, Tachico (alt. 2000 feet), to San Diego (alt. 4000 feet) on the eastern

slope. San Diego was for some time (Feb. 16 to May 6) the base of operations, from which trips were made to Guanopa, Rio Chico and Tatuara (Feb. 15-March 1).

The specimens of birds and mammals were collected principally by Mr. F. Robinette, of Washington, D. C. A few were collected by Mr. A. D. Meeds, of Minneapolis, Minn. Unfortunately no notes accompany the specimens, beyond the locality and date of collecting, and many of the localities are not on published maps.

MAMMALS.

- I. Lepus alleni Mearns.—Two specimens, Oputo, Oct. 27.
- 2. Lepus arizonæ Allen.—One specimen, San Diego, northern Chihuahua, Nov. 5.
 - 3. Thomomys umbrinus (? Rich.) .- Seven specimens, Juarez, northern Sonora. Referred provisionally to this species, and doubtless the same as T. umbrinus of Baird, based in part on Sonoran specimens.
 - 4. Perodipus sp.?—One specimen, imperfect, and without label.
 - 5. Mus musculus Linn.—Three specimens, Juarez, northern Sonora.
 - 6. Neotoma mexicana Baird.—One specimen, Cachuta, northern Sonora, Oct. 3.
 - 7. Sigmodon hispidus arizonæ Mearns.—One specimen, Granados, Nov. 16.
 - 8. Onychomys sp.?—One specimen (in poor condition), Jaurez, northern Sonora.
 - 9. Cynomys arizonensis Mearns.—Three skins, San Diego, Chihuahua, Nov. 14, 1891, A. D. Meeds.
 - 10. Sciurus aberti Woodh.—One skin, in the gray phase, and an additional skull and skeleton. Without labels, but probably taken in December, on the upper Bavispee River.

II. Sciurus apache, sp. nov.

Upper premolars \(\frac{1}{4}\). Size large; tail long, full and bushy, the vertebræ alone nearly equal to head and body. Above pale yellowish gray, varied with black, darkest on the head; dorsal pelage at base pale plumbeous, the coarser hairs pale buff, with a broad subterminal ring of black and a whitish tip; below uniform pale orange yellow, as are also the limbs and feet; tail above black, broadly fringed with yellowish white, below with a broad central band of dull ferrugineous orange, bordered on either side with a broad band of black, and a broad fringe of yellowish white, the basal half of the hairs being dull orange, the next fourth black, and the apical fourth yellowish white. A pale yellow eye-ring. Ears moderate, rounded, yellowish, mixed with gray, both externally and within.

Measurements.—(Approximate, from skin.) Head and body, 320 mm.; tail vertebræ, 265; tail to end of hairs, 360; hind foot, 72; ear, from crown, 20.

Skull.—Rostral portion short and broad, the nasals but little narrowed posteriorly. Total length, 64; basilar length, 58; greatest breadth, 36; least interorbital breadth, 22; length of nasals, 20; width of nasals at posterior border, 12.

Type, No. 5370, Northern Chihuahua, Lumholtz Expedition.

This species is based on two skins and skull taken in Northern Chihuahua by the Lumholtz Expedition, probably in November or December, the specimens being evidently in late fall or winter pelage. They were unfortunately without labels when received.

The skull presents a general resemblance in size and form to skulls of other species of the subgenus *Parasciurus*, or the group with the premolars \(\frac{1}{4}\). It appears to most resemble the skull of S. arizonensis Coues, but has the rostral portion shorter and broader than in average specimens of this species. The skull differs in a similar way from that of S. nayaritensis Allen.

In coloration S. apache, as the above description shows, presents no suggestion of close affinity with either S. arizonensis or S. nayaritensis, but strongly recalls that of pale examples S. niger ludovicianus; and it is undoubtedly related to the S. niger group. At first it seemed probable that the specimens above described would prove referable to Sciurus limitis Baird, based on a specimen from "Devil's River, or the San Pedro of the Rio Grande, Texas," but reference to Baird's description of S. limitis shows the latter to be very different from the form here described as S. apache.

Note on Sciurus arizonensis Coues.-A large series of skulls of this species, recently presented to the American Museum of Natural History by Dr. Edgar A. Mearns, by whom they were collected at various localities in Arizona, shows that this species belongs to the Parasciurus group, the upper premolars being $\frac{1}{4}$ instead of $\frac{2}{4}$, as formerly supposed. When treating of this species in 1877, no skulls were available for examination, and from its general resemblance in coloration to Sciurus carolinensis it was referred, erroneously as it now appears, to the same section of the genus. Parasciurus thus proves to have a nearly transcontinental range, instead of being an exclusively 'Eastern' genus, as recently assumed by the present writer.2 It also has a wide range in Mexico, occurring in the Sierra Madre region southward into the States of Zacatecas and Vera Cruz, where it is represented respectively by S. nayaritensis Allen and S. niger melanonotus Thomas.

12. Cariacus virginianus (subsp.?).—Several imperfect flat skins, including two with skulls and feet, and two separate skulls of does. The skins include one that is pure white (albino). Bavispee River, October, 1890.

A full-grown male has antlers of the usual style of *C. virginianus*, but another specimen shows that old bucks sometimes develop antlers of large size, with very numerous tines, the left antler in this specimen having eight points and the right one six points; they are, however, unsymmetrical in the two antlers and represent an abnormal development. This head strongly suggests the remarkable growth of points seen in some specimens of *C. v. leucurus*. The length of the left antler measured along the convexity of the beam is sixteen and one-half inches; the length of the principal tine is six inches.

In coloration these specimens closely resemble C. v. leucurus, but are rather lighter, with a whiter tail. They apparently represent a much larger form than Baird and some other authors have recognized under the name Cariacus mexicanus.

13. Mephitis estor Merriam.—Two specimens, San Diego, northern Chihuahua, Oct. 28.

¹ Monographs of N. Am. Rodentia, pp. 738-741.

² This Bulletin, IV, p. 218.

These specimens agree with Dr. Merriam's description of his *M. estor* from San Francisco Mountain, Arizona, to which species they are here provisionally referred.

- 14. Procyon lotor hernandezii (Wagler).—Represented by a single skin without label.
- 15. Urocyon virginianus scottii Mearns.—Several skins, separate skulls, and a skeleton.
- 16. Canis latrans Say.—Two skins with skulls, from northwestern Chihuahua, in winter coat. These compared with specimens in summer pelage from Arizona (Mearns Coll.) show that the seasonal change in the coloration and texture of the pelage is very great. In winter specimens the coat is long, fine and soft, above yellowish gray varied with black; in summer examples it is thin, coarse and harsh, above yellowish brown, with very little mixture of black.

Specimens in winter coat from Montana are very different in coloration from those from northern Mexico taken at the same season, the southern specimens being much more yellowish throughout, with the posterior surface of the ears, occiput, and the outer surface of the limbs golden brown, much brighter and more golden than in the northern specimens. Doubtless a proper amount of material for comparison would demonstrate the desirability of recognizing several subspecies among the Coyotes, which range from Central America northward to beyond the northern boundary of the United States.

17. Lynx rufus maculatus (Horsf. & Vig.).

Felis maculata Horsf. & Vig. Zool. Journ. IV, 1829, p. 381, pl. xiii. (Mexico.) Lynx rufus var. maculatus BAIRD, Mam. N. Am. 1857, p. 93. ? Lynx baileyi MERRIAM, N. Am. Fauna, No. 3, 1890, p. 79. (Southern Arizona.)

Two specimens, in winter pelage, without labels, but probably from Camp 21, on the Bavispee River, 15 miles from Chuchuichupa, December, 1891. One is adult, the other about half grown. The adult specimen agrees very well with the description of Felis maculata Horsfield & Vigors, to which these specimens are provisionally referred. Whether or not it is the same as Lynx baileyi

Merriam, from Arizona, is not easy to determine, since Dr. Merriam's comparisons are exclusively with specimens of *L. rufus* from Connecticut.

A series of 15 specimens from Arizona (Mearns Collection) presents a wide range of variation in color, summer specimens being more tawny than winter specimens, with the black spots of the lower parts more vividly contrasted with the purer white ground color. There is also much individual variation, especially in respect to the distinctness of the face and head markings.

Two specimens from Florida (Tarpon Springs) are, as compared with northern rufus, very dark in general coloration, especially over the hinder portion of the dorsal surface, and the head markings are stronger. These represent a fairly recognizable Florida form, provisionally termed "Lynx rufus var. floridanus Rafinesque" by Baird in 1857 (l. c., p. 91, in text). A single specimen from Brownsville, Texas, is strikingly similar in general coloration. Two specimens from the formerly so-called 'Neutral Strip,' Indian Territory, are much more like the northern L. rufus. Two winter specimens from Montana have, in comparison with all of the other specimens, a much longer, thicker, softer pelage, as would be expected from the season and locality, but they are also grayer and less strongly spotted.

Doubtless the Lynxes of the widely distributed *L. rufus* group will be found separable into a number of more or less well-marked geographical forms, when sufficient material for comparison is brought together.

BIRDS.1

- I. Mergus americanus.—Two specimens (labels lost).
- 2. Anas strepera.—San Diego, Feb. 2.
- 3. Anas americana.—Cachuta, Oct. 2.
- 4. Anas carolinensis.—Nacory, Nov. 30; San Diego, Feb. 2.
- 5. Anas discors.—Cachuta, Oct. 2.

¹ As nearly all of the species here mentioned occur in the American Ornithologists' Union 'Check-List of North American Birds,' authorities for the scientific names are omitted, except where the species is extralimital to the A. O. U. Check-List.

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- 6. Anas cyanopterus.—San Diego, Nov. 10.
- 7. Dafila acuta.—Cachuta, Oct. 3.
- 8. Spatula clypeata.—San Diego, March 14.
- 9. Erismatura rubida.—Pachico, June 22.
- 10. Plegadis guarauna.—Cachuta, Oct. 5.
- II. Ardea herodias.—San Diego, Feb. 19.
- 12. Ardea candidissima.—Three specimens (labels lost).
- 13. Fulica americana.—Pachico, June 22; Cachuta, Sept. 28-30.
 - 14. Recurvirostra americana.—Oputo, Oct. 22.
 - 15. Himantopus mexicanus.—Cachuta, Oct. 10.
- 16. Gallinago delicata.—Pachico, Jan. 25; Chuhuichupa, Jan. 2-14; San Diego, Oct. 23.
 - 17. Tringa bairdii. One specimen (without label).
- 18. Tringa minutilla.—San Pedro, Sept. 15; San Diego, April 1.
 - 19. Ereunetes occidentalis.—Cachuta, Oct. 2.
 - 20. Totanus melanoleucus.—One specimen (without label).
 - 21. Totanus solitarius.—San Diego, April 13.
 - 22. Totanus solitarius cinnamomeus.--Cachuta, Oct. 8.
- 23. Ægialitis vocifera. Bisbee and Greenbush Ranch, Sept. 6–10; Pachico, June 22.
- 24. Cyrtonyx montezumæ. Los Pinitos, Los Vengos, Nacory, and Huerachi, Oct. 12-Dec. 6.
 - 25. Callipepla gambeli.—Santa Barbara, Sept. 21.
- 26. Callipepla elegans (Less.).—Nacory, Nov. 27. [April, 1893.]

- 27. Callipepla squamata.—San Pedro and Bisbee, Aug. 15-Sept. 26; San Diego, Feb. 16.
- 28. Zenaidura macroura.—Near Bisbee, August; Huerachi, Dec. 6.
 - 29. Melopelia leucoptera.—Bisbee, July.
 - 30. Scardafella inca.—Granados, Nov. 12-15.
 - 31. Cathartes aura.—Fronteras, Sept. 23.
 - 32. Circus hudsonius.—Rancheria de los Apaches, Jan. 10.
 - 33. Accipiter velox. Granados, Nov. 11; Pachico, June 22.
 - 34. Buteo borealis calurus.—Chuhuichupa, Jan. 14.
 - 35. Buteo swainsoni.—Fronteras, Sept. 23:
 - 36. Urubitinga anthracina.—San Diego, March 31.
- 37. Asturina plagiata.—Fronteras, September; Oputo, Oct. 26.
 - 38. Falco columbarius.—San Diego, Oct. 23.
- 39. Falco sparverius deserticolus.—Pachico, June 28 and Jan. 25; Granados, Sept. 27 and Nov. 11; Nacory, Nov. 29; Bavispee River, Dec. 30.
 - 40. Asio wilsonianus.—San Diego, March 14.
- 41. Bubo virginianus subarcticus.—San Diego, Feb. 19-23.
 - 42. Speotyto cunicularia hypogæa.—San Pedro, Sept. 15.
- 43. Rhynchopsitta pachyrhyncha (Swains.). Three specimens, Pachico, June 20.
 - 44. Geococcyx californianus.—Near Bisbee, August.
- 45. Euptilotis neoxenus (Gould).—One specimen, sexed as a male, but if so it is immature, taken at El Pinita, Dec. 16, 1890.
- 46. Ceryle alcyon.—San Diego, Feb. 24; Chuhuichupa, Jan. 14.

- 47. Campephilus imperialis (Gould).—Seven specimens, taken as follows: Chuhuichupa, Jan. 25–29, 1892; Bavispee River, Dec. 24, 1890; Rancheria de los Apaches, Jan. 10, 1891. Dr. Lumholtz informs me that the species is common at the localities last named.
- 48. Dryobates villosus hyloscopus.—El Puerto, Dec. 7; Rancheria de los Apaches, Jan. 14-25.
- 49. Dryobates arizonæ.—Rancheria de los Apaches, Jan. 14 and 15.
- 50. Dryobates scalaris.—Oputo and Bacadehuachy, Sept. 25-Nov. 29; San Diego, Feb. 24.
- 51. Sphyrapicus varius nuchalis.—El Pinita and Los Cuevos, Oct. 12-15; El Puerto, Dec. 16; Bavispee River, Dec. 30; Rancheria de los Apaches, Jan. 15. One of the El Puerto specimens (No. 56,498, &), shows an excessive tendency to erythrism, the usual red throat patch extending posteriorly over the whole breast, where the feathers are merely black at the base and red apically, the usual broad black breast patch being concealed by the broad red tips of the feathers. The posterior half of the superciliary and subocular white stripes is also strongly washed with red—a feature occasionally developed in specimens from other localities. The El Puerto specimen thus has very much the appearance of a small S. ruber.
- 52. Sphyrapicus thyroideus. Female, Bavispee River, Dec. 12; male, Rancheria de los Apaches, Jan. 15. This last example (No. 56,494, & ad.) also shows an abnormal development of red on the breast, the usual red gular stripe broadening posteriorly and continuing over the breast, where it occupies the middle third of the pectoral area. The feathers of the whole top of the head are also broadly tipped with bright red. It thus at first sight, through the red crown and extension of the red throat spot over the breast, has the appearance of being a very different species from S. thyroideus. In the absence of other specimens, however, it seems best to treat it as merely an abnormal example of S. thyroideus.

- 53. Melanerpes formicivorus bairdi.—Cachuta and El Pinita, Oct. 9–14; Pachica, June 22; San Diego, Oct. 30.
- 54. Melanerpes uropygialis. Fronteras, Sept. 20-27; Bacadehuachy, Nov. 20.
- 55. Colaptes cafer.—Los Trincheras, Sept. 20; El Pinita, Oct. 12; Rancheria de los Apaches, Jan. 10; San Diego, Nov. 5.
 - 56. Phalænoptilus nuttalli nitidus.—San Diego, Nov. 12.
- 57. Chordeiles acutipennis texensis.—San Diego, April 21-24.
 - 58. Aëronautes melanoleucus.—Granados, Nov. 16.
 - 59. Trochilus alexandri.—Bisbee, Arizona, July and August.
 - 60. Calypte costæ.—El Pinita, Oct. 14.
- 61. Selasphorus alleni.—Bisbee, August and September; Santa Barbara, Sept. 21.
- 62. Tyrannus vociferans.—Leoncita and Fronteras, Sept. 21-27.
 - 63. Tyrannus verticalis.—San Diego, April 13-21.
 - 64. Myiarchus cinerascens.—San Diego, April 21-23.
- 65. Myiarchus inquietus (Salv. & Godm.).—Oputa, Sept. 9; Bacadehuachy, Dec. 20.

The two specimens above recorded seem unquestionably referable to Mr. Salvin's recently described Myiarchus inquietus, from the State of Guerrero, Mexico, although from localities so much further north. We have, however, a specimen from Zapotlan, Jalisco (collected by Dr. A. C. Butler), a much more southern but still an intermediate point. Doubtless it will prove to range throughout the mountainous parts of Mexico, as Myiarchus cinerascens nuttingi has recently been found to do.

66. Sayornis phæbe.—San Diego, Feb. 24.

¹ Biolog. Cent. Am. Aves, II, p. 88, March, 1892.

- 67. Sayornis saya.—San Pedro, Sept. 9; San Diego, April 5.
- 68. Sayornis nigricans.—San Diego, May 15 and Nov. 5; Granados, September and November.
 - 69. Contopus richardsoni.—San Diego.
 - 70. Empidonax difficilis.—Los Cuevos, Oct. 15.
- 71. Empidonax wrightii.—Oputo, Nov. 9-25; San Diego, April 3-22.
 - 72. Empidonax hammondi.—Los Cuervos, Oct. 15.
- 73. Pyrocephalus rubineus mexicanus.—San Pedro, Sept. 15; Granados and Nacory, November; San Diego, March 10 and April 15; Pachico, June 22.
- 74. Otocoris alpestris adusta.—San Diego, Feb. 16 and Nov. 5.
- 75. Cyanocitta stelleri macrolopha.—El Pinita, Oct. 12; also four specimens without labels.
 - 76. Aphelocoma woodhousei.—Bisbee, July 14.
- 77. Aphelocoma sieberi arizonæ.—Cachuta, Oct. 9; Bavispee River, Dec. 16; San Diego, April 8.
 - 78. Corvus corax sinuatus.—Chuhuichupa, Jan. 14.
 - 79. Corvus cryptoleucus.—San Pedro, Sept. 16.
 - 80. Molothrus ater obscurus.-Bisbee, July 30.
- 81. Xanthocephalus xanthocephalus.—Pachico, June 22; San Pedro, Sept. 12.
- 82. Agelaius phœniceus sonoriensis.—Nacory, Nov. 26; San Diego, March 13; Pachico, June 22.
- 83. Sturnella magna mexicana.—San Diego, Oct. 20 and Feb. 26; San Pedro and Cachuta, Sept. 15-30; Nacory, Nov. 24.
 - 84. Icterus parisorum.—Bisbee, July 21.
 - 85. Icterus cucullatus nelsoni.—Bisbee, July 17.

- 86. Scolecophagus cyanocephalus.—San Pedro and Cachuta, Sept. 15-30.
- 87. Carpodacus mexicanus frontalis.—Oputo, Oct. 25-27; Granados and Nacory, November.
 - 88. Spinus psaltria.—Los Cuevos, Oct. 15.
- 89. Spinus pinus.—San Diego, March and April; Rio Chico, Feb. 9.
 - 90. Calcarius ornatus.—San Diego, Feb. 18-24.
 - or. Rhynchophanes mccowni.—San Diego, Feb. 16.
- 92. Poocætes gramineus confinis.—San Diego, Feb. 16-18.
- 93. Ammodramus sandwichensis alaudinus.—San Diego, Feb. 18.
 - 94. Ammodramus bairdi.—Nuevencha Plain, Feb. 15.
- 95. Chondestes grammacus strigatus.—Bisbee, Aug. 12-14; Nacory, Nov. 27.
- 96. Zonotrichia leucophrys intermedia.—Fronteras, Sept. 27; Oputo, Oct. 30; Granados, Nov. 15; San Diego, Oct. 30 and April 3-13.
- 97. Spizella socialis arizonæ. Puerto de los Pinitos, Bacadehuachy, and Nacory, Nov. 13-24; San Diego, April and October.
- 98. Spizella pallida.—Oputo, Oct. 27; San Diego, Feb. 18 and April 13.
 - 99. Spizella breweri.—Granados, Nov. 15.
 - 100. Junco hyemalis shufeldti.—Chuhuichupa, Jan. 11.
- 101. Junco annectens.—Rancheria de los Apaches, Jan. 10-17.

- 102. Junco caniceps.—Napolera, Dec. 12; Bavispee River, Dec. 22; Rancheria de los Apaches, Jan. 10; Chuhuichupa, Jan. 11.
 - 103. Junco cinereus palliatus.—Chuhuichupa, Jan. 19.
 - 104. Junco cinereus dorsalis.—San Diego, Nov. 11.
- 105. Amphispiza bilineata.—Bisbee, July 9-Sept. 9; Oputo, Oct. 30.
- 106. Aimophila superciliosa (Swain.).—Bavispee River, Dec. 21–26; Pachico, Jan. 27.
- 107. Aimophila mcleodi (Brewster) Puerto de los Pinitos, Oct. 14.
- 108. Peucæa ruficeps boucardi.—Bisbee, July 10; Bavispee River, Dec. 26.
- 109. Peucæa notosticta (Scl. & Salv.).—Bavispee River, Dec. 26; Guanopa, Feb. 2.
 - 110. Peucæa carpalis.—Granados, Nov. 16.
 - III. Peucæa cassini.—Cochise Co., Arizona, Aug. 24-Sept. 4.
- 112. Melospiza fasciata montana.—Bavispee River, Dec. 12-26.
- 113. Melospiza fasciata mexicana.—Bavispee River, Dec. 21-26.
- 114. Melospiza lincolni.—Fronteras, Sept. 27; Nacory, Nov. 27; Napolera, Dec. 9-10; Bavispee River, Dec. 26.
- 115. Pipilo maculatus megalonyx.—Los Pinitos, Oct. 9-13.
- 116. Pipilo chlorurus.—Fronteras, Sept. 26, 27; Bacadel-huachy, Nov. 21.
- 117. Pipilo fuscus mesoleucus.—Granados, Nov. 12; Nacory, Nov. 24; San Diego, Oct. 27; Neuvencha Plain, Feb. 14.
 - 118. Cardinalis cardinalis superbus.—Oputo, Oct. 27.

- 119. Pyrrhuloxia sinuata beckhami.—Granados, Nov. 14.
- 120. Calamospiza melanocorys.—Oputo, Oct. 27-30.
- 121. Piranga rubra cooperi. Fronteras, Aug. 25; San Diego, April 21-May 6.
 - 122. Piranga hepatica.—El Pinita, Oct. 12-14.
 - 123. Tachycineta bicolor.—San Diego, Feb. 24-26.
- 124. Tachycineta thalassina.—Bisbee, July 7; San Pedro, Aug. 12; San Diego, Feb. 26.
- 125. Phainopepla nitens.—Oputo, Sept. 15-27; Nacory, Nov. 26.
- 126. Lanius ludovicianus excubitoroides. Cachuta, Sept. 2; San Pedro, Sept. 15; San Diego, Feb. 16.
 - 127. Vireo solitarius cassini.—Cachuta, Sept. 2.
- 128. Vireo solitarius plumbeus.—San Diego, April 28; Pachico, June 22.
 - 129. Vireo huttoni stephensi.—Bacadehuachy, Nov. 20.
 - 130. Helminthophila luciæ.—Bisbee, July 30.
- 131. Dendroica æstiva sonorana.—Bisbee, Aug. 13; San Diego, March 3, April 1 and 13.
- 132. Dendroica auduboni.—Los Cuevas, Sept. 3; Oputo, Sept. 15-27; San Diego, March 13 and April 15.
 - 133. Dendroica nigrescens.—San Diego, April 21.
- 134. Geothlypis trichas melanops (Baird).—San Diego, May 6.
- 135. Icteria virens longicauda.—San Diego, May 6; Lansito, Aug. 9.
 - 136. Sylvania pusilla pileolata.—San Diego, April 15-21.
 - 137. Setophaga picta.—Guanopa, Feb. 2; Huerachi, Dec. 6.

- 138. Basileuterus rufifrons (Swain.).—Napolera, Dec. 8.
- 139. Cinclus mexicanus.—Chuhuichupa, Jan. 22.
- 140. Mimus polyglottos.—Oputo, Sept. 23; northern Chihuahua (without labels), mostly young birds in spotted plumage.
- 141. Harporhynchus curvirostris.—Oputo, Sept. 23 and Nov. 9; Nacory, Nov. 24.
 - 142. Campylorhynchus brunneicapillus.—Oputo, Sept. 21.
- 143. Salpinctes obsoletus.—Fronteras, Sept. 27; Bavispee River, Dec. 12.
 - 144. Catherpes mexicanus.—Pachica, Feb. 3.
- 145. Thryothorus bewickii bairdi.—Chihuahua, Jan. 15 and March 10; San Diego, April 3.
- 146. Troglodytes aëdon aztecus.—Bavispee River, Dec. 22; San Diego, April 15; El Puerto, Dec. 16.
- 147. Certhia familiaris mexicana.—Napolera, Dec. 12; Chuchuichupa, Jan. 22.
- 148. Sitta pygmæa.—Bavispee River, Jan. 15; Totuaco, Feb. 29.
- 149. Sitta carolinensis aculeata.—El Pinita, Sept. 10; Napolera, Nov. 17; Bavispee River, Dec. 22-30.
- 150. Parus wollweberi.—Puerto de los Pinitos, Sept. 14; Napolera, Dec. 12.
- 151. Parus meridionalis.—Chihuahua, Jan. 14, 15; Tatuaca, Feb. 13-29.
 - 152. Psaltriparus lloydi.—Bavispee River, Dec. 28.
- 153. Auriparus flaviceps. Granados, Nov. 13; Bacadehuachy, Nov. 20.
- 154. Regulus calendula.—Los Cuevas, Sept. 15; Bacadehuachy, Nov. 11; Nacory, Nov. 24; Napolera, Dec. 10; Guanopa, Feb. 3; Tatuaca, Feb. 29.

- 155. Polioptila plumbea.—Oputo, Sept. 10-23.
- 156. Polioptila cærulea obscura.—Oputo, Sept. 10; Bacadehuachy, Nov. 20.
 - 157. Turdus aonalaschkæ.—Bacadehuachy, Nov. 11.
- 158. Turdus aonalaschkæ auduboni.—Rio Chico, Feb. 8; Bavispee River, Jan. 1.
- 159. Merula migratoria propinqua.—San Diego, March
- 160. Sialia sialis.—Bavispee River, Dec. 30; Red Bank, Feb. 27.
 - 161. Sialia mexicana.-Nacory, Nov. 24.
 - 162. Sialia arctica.—Nacory, Nov. 24; Pachico, Jan. 5.

The foregoing list of birds shows that the following Mexican species occur, probably as resident birds, within about 150 miles of the southern border of the United States.

Callipepla elegans.
Rhynchopsitta pachyrhyncha.
Euptilotis neoxenus.
Campephilus imperialis.

Myiarchus inquietus.

Aimophila supercilosa.

Aimophila meleodi.

Peucæa notosticta.

Geothlypis trichas melanops.

Basileuterus rufifrons.



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