DESCRIPTIONS OF THIRTY NEW NORTH AMERICAN BIRDS, IN THE BIOLOGICAL SURVEY COLLECTION.

BY E. W. NELSON.

RECENT study of the rich collection of Mexican birds accumulated by the Biological Survey has thrown much light on the southward extension of the life zones found within the United States. Many genera are represented in the various faunal areas by distinct species, while in other cases wide ranging species are broken up into geographic races. The series of specimens from almost every part of Mexico now in the collection show the existence of various hitherto unsuspected subordinate faunal areas, and has proved rich in types of new species and subspecies. The present paper gives some of the results of recent preliminary work on the collection.

I am greatly indebted to Mr. Robert Ridgway, Curator, and Dr. Chas. W. Richmond, Assistant Curator of Birds, in the U. S. National Museum, for cordial assistance during the preparation of this paper. All measurements are given in millimeters.

Crypturus inornatus, sp. nov. Brown-Backed Tinamou.

Type, No. 158434, & ad., U. S. Nat. Mus., Biological Survey Collection. Methaltoyuca, Puebla, Mexico, February 14, 1898, E. A. Goldman.

Distribution. — Dense, humid tropical forests of northern Vera Cruz and adjacent part of Puebla.

Specific characters. — Nearest C. mexicanus, from which the males may be distinguished by their deep reddish brown, slightly barred backs and more rufous underparts; the females are much deeper, more reddish brown both above and below.

Description of adult male (type).—Crown and forehead black slightly suffused with grayish; nape dark reddish brown becoming light vandyke brown with a faint purplish bloom on back and sides of neck and fore part of shoulders; shoulders and upper back plain, dark burnt umber; rump and upper tail-coverts lighter, more rusty brown and sparsely and indistinctly barred with black; primaries and secondaries dark slaty edged with brownish; wing-coverts, scapulars and tertials slightly paler brown than back and finely and indistinctly maculated but not barred with blackish; sides

of head to upper part of neck cinnamon brown; chin and throat white; under side of neck along median line dingy grayish brown shading into surrounding color; breast deep, dark cinnamon brown becoming darker and browner on sides, and clearer, paler cinnamon along median line; abdomen, flanks and under tail-coverts mixed buffy, whitish and dull cinnamon obscurely and coarsely barred with blackish.

Dimensions of type. - Wing, 166; tail, 56; culmen, 29; tarsus, 52.

Description of adult female from type locality. — Crown rusty, grayish brown (becoming bright rusty brown on nape) and obscurely barred with black; back and sides of neck bright rusty cinnamon; middle of fore part of shoulders tawny, sepia brown becoming dark cinnamon brown on sides; interscapular region dark umber brown shading into cinnamon on upper tail-coverts with entire back coarsely and obscurely barred with black; upper surface of wings slaty blackish coarsely barred with tawny cinnamon; sides of head tawny cinnamon with a vinaceous shade on adjacent part of neck; chin and throat white; under side of neck dark ashy washed with rusty brown; breast bright rusty cinnamon, darkest on sides and palest next abdomen; abdomen and flanks dull buffy, obscurely and coarsely barred with blackish; under tail-coverts deep buff coarsely maculated with black.

Dimensions of female. - Wing, 165; tail, 54; culmen, 29; tarsus, 52.

General notes. — The darker color and absence of black bars on wings and fore back of the males separate this bird at once from its nearest ally, C. mexicanus. The females are less distinct; the darker back and brighter colored nape and neck of C. inornatus suffice, however, to distinguish it at a glance.

Both Crypturus mexicanus and C. occidentalis inhabit the low, scrubby thickets of arid tropical districts and may be distinguished from their Mexican congeners of the more humid districts by their much paler colors. The general resemblance of C. mexicanus of Tamaulipas in eastern Mexico to C. occidentalis of Tepic, on the opposite side of the Continent, but living in very similar climatic conditions, is much greater than that of C. mexicanus to C. inornatus living in contiguous districts but with marked climatic differences.

Dendrortyx macrourus dilutus, subsp. nov. MICHOACAN WOOD GROUSE.

Type, No. 155562, & ad., U. S. Nat. Mus., Biological Survey Collection. Patzcuaro, Michoacan, Mexico, August 2, 1892, E. W. Nelson.

Distribution.—Mixed oak and pine forest on the Sierra Madre of Michoacan.

Subspecific characters.—About equal in size to *D. macrourus* with broad central stripes of rusty chestnut on feathers of underparts nearly as far back along sides as in *D. m. striatus*. In general color, most like typical *D. macrourus* but rusty chestnut about neck and under parts paler; back, upper surface of wings, tail and sides of body with a decidedly less gray and more brownish suffusion; bill very heavy and tumid and only equalled by that of *D. oaxacæ*.

Dimensions of type.—Wing, 167; tail, 155; culmen, 19; tarsus, 56.

General notes.—It is with some hesitation that I name still another form of Dendrortyx macrourus, yet the bird described above differs so much from any of the known forms that I see no other course to pursue. This appears to be one of those species which are in such a plastic condition that comparatively slight changes in climatic conditions, accompanied by partial geographic isolation, produce appreciable differences. In such cases it appears preferable, when the differences are sufficiently marked, to recognize these local forms, rather than to ignore them and include an entire group of geographic races under a single name, as would be the only other logical method.

Cyrtonyx montezumæ mearnsi, subsp. nov. Mearns's Quail.

Type, No. 142385, & ad., U. S. Nat. Mus., Biological Survey Collection. Ft. Huachuca, Arizona, April 30, 1892, Dr. A. K. Fisher.

Distribution.—Southwestern Texas and the southern half of New Mexico and Arizona, ranging thence into northern Mexico.

Subspecific characters.—In both sexes generally paler than true C. montezumæ; the males much grayer or more ashy on upper side of wings and paler brown on back; posterior part of crest decidedly lighter brown; sides of breast and body paler slaty gray and more thickly white-spotted. The females have paler backs with broader and more conspicuous pale shaft streaks, especially on rump.

Dimensions of type.—Wing, 117; tail, 58; culmen, 14; tarsus, 30.

General notes.—The Montezuma or Massena Quail of the Southwestern United States occupies a more arid region than that inhabited by the typical birds of the mountains bordering the Mexican tablelands farther south and, as might be expected, indicates this difference in environment by its paler colors. The birds of southern Arizona are typical of this pale form. It is named for Dr. Edgar A. Mearns, U. S. A., in recognition of the great amount of zoölogical work he has done in the region which it inhabits.

Amazona oratrix tresmariæ, subsp. nov. Tres Marias Parrot.

Type, No. 156735, & ad., U. S. Nat. Mus., Biological Survey Collection. Maria Madre Island, Tres Marias group, Western Mexico, May 4, 1897, E. W. Nelson and E. A. Goldman.

Distribution.—Tres Marias Islands, western Mexico.

Subspecific characters.—Distinguished from true A. oratrix by rather light, grass green back, more bluish green underparts and much greater extension of yellow on neck, especially on under side.

Dimensions of type.—Wing, 230; tail, 125; culmen, 34; tarsus, 26.

General notes.—The type of Mr. Ridgway's A. oratrix came from Petapa, Oaxaca, not far from Tehuantepec City. From this point they range through Western Mexico at least to the State of Colima, and crossing the Isthmus of Tehuantepec reach Central Tamaulipas in Eastern Mexico. Birds from all parts of this wide range are nearly uniform in color and agree in having the yellow on the sides of the head and under side of the neck rarely extending farther back than the ear-coverts and middle of the throat. In the Tres Marias form, the yellow on the adult birds commonly covers the entire head and neck and often encroaches on the shoulders and breast. The back of true A. oratrix is oil green. Very old birds of both forms often have the yellow feathers on the hind neck, and sometimes on the lower neck, edged or banded with dark red. This is much more pronounced in specimens from the Tres Marias than in those from the mainland.

Momotus lessoni goldmani, subsp. nov. Goldman's Motmot.

Type, No. 155138, & ad., U. S. Nat. Mus., Biological Survey Collection. Motzorongo, Vera Cruz, Mexico, March 5, 1894, E. W. Nelson and E. A. Goldman.

Distribution.—Humid tropical forests of Vera Cruz, adjacent part of Oaxaca, and south along the Gulf Coast probably to Yucatan.

Subspecific characters.—Body much greener than M. lessoni with only a light suffusion of brown on breast; blue border of crown paler, with only a trace of or entirely lacking the rich smalt blue along posterior border.

Description of type.—Lores, cheeks and line over eyes and isolated oval area on middle of crown black; black crown patch broadly bordered by pale greenish blue nearly uniform and never showing more than a trace of rich smalt blue border posteriorly, so conspicuous in true M. lessoni; dorsal surface, including sides of head, back of eyes, neck and back light olive green anteriorly and shading into grass green on lower back, rump and upper tail-coverts; tail grass green at base, shading gradually into blue near end and tipped with black; primaries edged with dark greenish blue, this color shading through dark bluish green on secondaries to nearly dark green on tertials; chin and throat light grass green shading imperceptibly into olive green of neck, breast and sides of body, and thence into clearer green on abdomen and flanks.

Dimensions of type.—Wing, 142; tail, 246; culmen, 49; tarsus, 32.

General notes.—This subspecies may be easily distinguished by the absence of nearly all of the dark rufous suffusion which gives a strong reddish shade to the underparts of *M. lessoni*, and by the lighter, greener back and uniform greenish blue border of the crown. Specimens from Huehuetan on the Pacific coast of Chiapas, are nearly typical *M. lessoni*, as are those from Costa Rica. *M. lessoni goldmani* appears to be found only on the Gulf Coast of Mexico. The type of *M. lessoni* came from Realejo, Nicaragua.

Melanerpes frontalis, sp. nov. Chiapas Woodpecker.

Type, No. 154938, ♂ ad., U. S. Nat. Mus., Biological Survey Collection. San Vincente, Chiapas, Mexico, December 12, 1895, E. W. Nelson and E. A. Goldman.

Distribution. - Known only from type locality.

General characters. — Scarlet crown patch usually small and separated from orange yellow nape by a dark smoky gray area; back broadly barred black and white; rump and middle tail-feathers strongly barred black and white. Pattern of markings on head and back most like that of *M. hoffmanni*.

Description of type. — Nasal tufts pale yellowish; forehead dull white with backward extension of same along sides of crown to middle of orbits,

enclosing on sides the small crown patch of scarlet; latter separated from rich orange nape by broad band of dark smoky gray nearly uniform with rest of head, neck and breast; middle of back and rump broadly barred with black and white as in *M. hoffmanni* (the white bars much broader than in *M. santacruzi*); upper tail-coverts white, with broken V-shaped black markings; middle tail-feathers white broadly barred on basal third and along inner webs, except at tips, with black; border of outer webs on distal third and entire tips black, upper surface of wings broadly barred with white; middle of primaries with irregular but well marked white area; abdomen barred with dull black and white and thinly washed with orange yellow; under tail-coverts white heavily barred with black; two outer tail feathers black with well marked white bars.

Dimensions of type. — Wing, 135; tail, 81; culmen, 30; tarsus, 21.

General notes. — M. frontalis resembles M. hoffmanni of Costa Rica, but is considerably larger, with a smaller red patch on the crown, and the lower parts are much paler gray with a paler wash of yellow on the abdomen. The crissum is strongly barred black and white in place of the V-shaped marks of M. hoffmanni and the two outer tail feathers are distinctly barred with white.

Melanerpes santacruzi fumosus, subsp. nov. Smoky-Breasted Woodpecker.

Type, No. 154964, ♂ ad., U. S. Nat. Mus., Biological Survey Collection. Huehuetan, Chiapas, Mexico, March 2, 1896, E. W. Nelson and E. A. Goldman.

Distribution. — Pacific Coast district of southern Chiapas and adjacent part of Guatemala.

General characters.—Generally similar to *M. santacruzi* but smaller with heavier bill, darker back; under parts grayer, less brownish; lower rump and upper tail-coverts barred or marked with black.

Description of type. — Nasal tufts faintly washed with yellow; forehead dull whitish; crown and nape with a broad continuous band of scarlet tinged posteriorly with golden; back and top of wings broadly barred with black and narrowly barred with white; rump white irregularly marked with black; upper tail-coverts with black shaft lines; middle tail feathers black, lateral ones inconspicuously marked with white; sides and under parts of head, neck and body to abdomen dark, dingy, smoky gray with a slight brownish tinge; abdomen obsoletely barred with black and dull whitish and washed with orange; under tail-coverts strongly barred black and white.

Dimensions of type. - Wing, 137; tail, 76; culmen, 31; tarsus, 22.

General notes. — This form differs from M. polygrammus by its much darker back and underparts; its barred and black-marked rump and upper tail-coverts and generally unmarked rectrices and more heavily barred under tail-coverts.

Melanerpes dubius veræcrucis, subsp. nov. Vera Cruz Woodpecker.

Type, No. 154835, & ad., U. S. Nat. Mus., Biological Survey Collection. Coatzacoalcos, Vera Cruz, Mexico, April 15, 1896, E. W. Nelson and E. A. Goldman.

Distribution. — Southern half of Vera Cruz, Tabasco, and bordering part of Chiapas.

Subspecific characters. — Smaller than M. dubius with broader white frontal area and rather broader white barring on dorsal surface; sides and lower part of head, neck, and body darker, more brownish gray; crissum more heavily barred with black.

Dimensions of type. - Wing, 124; tail, 76; culmen, 29; tarsus, 23.

General Notes. — This form inhabits a region of much greater humidity than that of typical M. dubius and a specimen from the heavily forested region of Chiapas is darker than Vera Cruz birds and probably represents the extreme of the form in this respect.

Dryobates villosus intermedius, subsp. nov. Tableland Woodpecker.

Type, No. 154901, ♂ ad., U. S. Nat. Mus., Biological Survey Collection. Villar, San Luis Potosi, Mexico, September 22, 1892, E. W. Nelson.

Distribution.—Arid mountains of the southern and eastern part of the Mexican tableland, north of the valley of Mexico.

Subspecific characters.—Intermediate in size between D. v. hyloscopus and D. v. jardinii. The upper surface of wings scantily white-spotted much as in D. jardinii; lores mainly black; throat, lower side of neck and breast smoky gray, much paler than in D. jardinii, abdomen more whitish and under tail-coverts white; stripe down back washed with smoky but much paler than color of breast.

Dimensions of type.—Wing, 121; tail, 76; culmen, 28; tarsus, 23.

Nyctibius jamaicensis mexicanus, subsp. nov. Mexican Goatsucker.

Type, No. 158535, ♂ ad., U. S. Nat. Mus., Biological Survey Collection. Metlaltoyuca, Puebla, Mexico, January 26, 1898, E. A. Goldman.

Distribution.—Eastern coast region of Mexico north to northeastern Puebla.¹

Subspecific characters.—Similar to N. jamaicensis but decidedly larger and browner, this last character being specially marked on lesser wing-coverts; pale spots along outer border of primaries much duller gray in less vivid contrast to dark part of feathers.

Measurements of type.—Wing, 310; tail, 220; culmen, 29; tarsus, 16.

General notes.—An adult 9 from the same locality as the type measures, wing, 304; tail, 224; culmen, 26; tarsus, 14. An adult bird, sex unknown, but probably a male, from Mirador, Vera Cruz, measures: wing, 310; tail, 220; culmen, 24; tarsus, 15. A specimen from the island of Jamaica and representing typical N. jamaicensis measures: wing, 275; tail, 186; culmen, 23; tarsus, 13.

Antrostomus oaxacæ, sp. nov. Oaxaca Whippoorwill.

Type, No. 154735, Q ad., U. S. Nat. Mus., Biological Survey Collection. Near City of Oaxaca, Oaxaca, Mexico, August 14, 1894, E. W. Nelson and E. A. Goldman.

Distribution.—Sierra Madre bordering southern part of Mexican tableland from Michoacan through Oaxaca to adjacent part of Chiapas.

Specific characters.—Most closely related to A. macromystax but back darker; black spots on scapulars larger; feathers of nape rather coarsely barred with black and reddish brown; middle of back and rump heavily streaked with black and spotted and mottled with reddish and grayish brown; below entire breast and sides of body blackish coarsely marked with irregular spots of grayish and reddish brown; the fine maculation of back and breast characteristic of A. macromystax almost wholly replaced in this species by coarser spotting, rendering the two easily separable.

Dimensions of type.—Wing, 162; tail, 119; culmen, 14; tarsus, 18.

¹This species has been recorded from Mazatlan, Sinaloa, and thence southward on the Pacific Coast of Mexico, and the birds found there probably belong to the present subspecies, but I have seen no specimens from that region, so cannot be certain.

General notes.—It is possible that the present bird may be found to be a subspecies of A. macromystax but this appears rather unlikely considering the typical character of specimens of the latter taken on the border of the range of A. oaxacæ.

Antrostomus chiapensis, sp. nov. Chiapas Whippoorwill.

Type, No. 154737, & ad., U. S. Nat. Mus., Biological Survey Collection. Valley of Comitan, Chiapas, Mexico, December 11, 1895, E. W. Nelson and E. A. Goldman.

Distribution.—Known only from type locality near border of Guatemala.

Specific characters.—Darker even than A. salvini; back and upper surface of wings spotted and barred with rufous brown; under parts blackish coarsely marked with dull buffy; under tail-coverts not barred.

Description of type.—Crown with broad median streak of black with a few oval rufous brown spots along borders; sides of crown rather coarsely mottled with black, gray and brown; foreback black obscurely barred with dull rufous brown; rest of back, rump and upper tail-coverts black with transverse spots of rufous brown on edges of feathers, most heavily marked on coverts; scapulars black with large spots of rusty buff along borders; upper surface of wings and outer edges of primaries distinctly spotted with a deeper shade of same; upper surface of tail black rather finely mottled with rusty and dark grayish forming indistinct V-shaped bands; sides of head blackish mixed with dark golden buffy; chin and throat black irregularly barred with dingy rusty and rusty whitish, succeeded by a narrow white collar; rest of underside of body black, coarsely but obscurely barred with grayish and rusty brown on forebreast; coarsely spotted with pale dingy, rusty white on rest of breast and sides, and broadly but obscurely barred with dark, dingy buff; under tail-coverts dark buff with hidden shaft bands of black; inside of inner webs of primaries almost uniform black with only slight traces of dark rusty spots; white on outer ends of tail feathers about as in A. vociferus.

Dimensions of type.—Wing, 169; tail, 127; culmen, 14; tarsus, 18.

General notes.—The only specimen taken of this well marked species was secured in the border of the mixed oak and pine forest on the highlands of Chiapas near the Guatemalan line.

Cypselus brunneitorques griseifrons, subsp. nov. Northern Rufous-collared Swift.

Type, No. 157055, & ad., U. S. Nat. Mus., Biological Survey Collection. Santa Teresa, Territory of Tepic, Mexico, August 8, 1897, E. W. Nelson and E. A. Goldman.

Distribution.—Sierra Madre Mountains of Tepic, Jalisco, Western Zacatecas and Southern Durango, Mexico.

Subspecific characters.—Male differs from typical C. brunneitorques in more distinctly gray edges to feathers of forehead and over eyes; smaller dark throat patch; paler, more rusty rufous collar; with paler and more grayish shade of black over entire body. The female differs from typical birds in its grayer forehead; darker chin and throat; grayer and less brownish shade to black on entire body; and in having the rump paler than rest of back, forming a poorly marked rump patch.

Dimensions of type.—Wing, 122; tail, 41; culmen, 5; tarsus, 12.

Thalurania ridgwayi, sp. nov. RIDGWAY'S THALURANIA.

Type, No. 155981, U. S. Nat. Mus., Biological Survey Collection. San Sebastian, Jalisco, Mexico, March 18, 1897, E. W. Nelson and E. A. Goldman.

Distribution. — Known only from type locality.

Specific characters.—Readily distinguished from other known members of the genus by the dark, non-metallic underparts.

Description of type. — Top of head from base of bill to middle of crown dark metallic blue; rest of crown dark, rather dull bluish green; sides of head, back of eyes, upper half of neck and entire back bronzy green, darkest on upper tail-coverts; wings dark purplish brown; tail lustrous black with slight purplish gloss; chin, sides of head to lower side of orbits, and entire under side of neck brilliant metallic green; under side of body dull blackish washed with metallic greenish on sides; under coverts lustrous black.

Dimensions. - Wing, 57; tail, 33; culmen, 17.

General notes. — This species extends the range of the genus from Honduras to Central-Western Mexico and is the most unexpected of the results obtained during our brief visit to the 'island' of humid tropical forest found near San Sebastian on the arid tropical west slope of Jalisco. The number of new and interesting birds found during our visit of a few days duration at that locality is sufficient to justify much more thorough work there.

It gives me great pleasure to name this interesting species in honor of Mr. Robert Ridgway.

Empidonax timidus, sp. nov. Durango Flycatcher.

Type, No. 163905, & ad., U. S. Nat. Mus., Biological Survey Collection. El Salto, Durango, Mexico, July 17, 1898, E. W. Nelson and E. A. Goldman.

Distribution. — Known only from the type locality.

Specific characters. — Much like $E.\ albigularis$ but larger with broader bill and paler colors.

Description of type. — Top of head and back, hair brown, slightly darkest on head and palest on rump; upper tail-coverts broccoli brown; upper surface of wing and tail feathers dull blackish hair brown; secondaries and tertials edged with dull whitish; two distinct wing bands; the anterior one dark buffy, the posterior one buffy whitish; sides of head and neck paler more grayish brown than back with a pale buffy suffusion; sides of breast pale grayish brown; only a faint indication of pectoral band; chin and throat whitish shaded with pale buffy; middle of breast, belly and under tail-coverts dull buffy yellowish, underlaid with pale grayish brown on breast but clear on belly and tail-coverts; under wing-coverts rusty buffy a little paler than in E. albigularis; outer web of outer tail feathers a little paler than inner web.

Dimensions of type. - Wing, 62; tail, 57; culmen, 11; width of bill at rictus, 8; tarsus, 17.

Empidonax bairdi perplexus, subsp. nov. Oaxaca Green Flycatcher.

Type, No. 154569, Q ad., U. S. Nat. Mus., Biological Survey Collection. Puerto Angel, Oaxaca, Mexico, March 13, 1895, E.W. Nelson and E. A. Goldman.

Distribution.— Arid west coast region of Mexico from near Tehuantepec north to the Territory of Tepic.

Subspecific characters. — Similar to E. bairdi but back lighter greenish, wing bands and edgings to secondaries and tertials much paler, more yellowish; larger and paler yellowish area on chin and throat; pectoral band much more restricted, with more of a dull brownish shade; sides of body less heavily washed with olive greenish; rest of lower parts paler yellow.

Dimensions of type. - Wing, 62; tail, 55; culmen, 12; tarsus, 16.5.

General notes. — This form is most readily distinguished from E. bairdi by the generally paler color and the much greater extension of the yellow on under parts, the broad area of olive green on the sides of the neck and across the breast being much more restricted and with a more brownish shade.

In 1897 I described *Empidonax bairdi occidentalis* (Auk, XIV, p. 53) and the name was intended to apply to the present form but by an unfortunate slip the specimen chosen and designated as the type, in the light of further material, proves to be strictly referable to *E. bairdi* and it consequently becomes necessary to choose a new type and redescribe the subspecies. The error came about through the fact that both *E. bairdi* and *E. b. occidentalis* occur in winter at Pluma, Oaxaca, the type locality for the last named bird, and are represented in our collection from that point. Nearly typical *E. bairdi* also occurs in winter in western Durango (Chacala) but we took only specimens of *E. b. perplexus* between these two points.

Myiopagis placens jaliscensis, subsp, nov. Jalisco Flycatcher.

Type, No. 156022, & ad., U. S. Nat. Mus., Biological Survey Collection. San Sebastian, Jalisco, Mexico, March 18, 1897, E. W. Nelson and E. A. Goldman.

Distribution. -- Western Mexico from Southern Sinaloa south at least through Jalisco and Tepic; straying in winter to Tres Marias Islands.

Subspecific characters.—Larger than typical M. placens with proportionately as well as absolutely longer tail; top of head paler and grayer; rest of dorsal surface lighter green; yellow of under parts paler.

Measurements of type. - Wing, 70; tail, 70.5; culmen, 11; tarsus, 19.

General notes. — A specimen in the National Museum from the Tres Marias Islands which I referred to *M. placens* in my report upon the birds of those islands belongs to the present subspecies.

Sittasomus sylvioides jaliscensis, subsp. nov. Jalisco Rufous-tailed Creeper.

Type, No. 156012, & ad., U. S. Nat. Mus., Biological Survey Collection. San Sebastian, Jalisco, Mexico, March 17, 1897, E. W. Nelson and E. A. Goldman.

Distribution .-- Known only from the type locality.

Subspecific characters. — Distinguished from the typical S. sylvioides of eastern Mexico by its larger size and darker grayish brown underparts. Dimensions of type. — Wing, 84; tail, 89; culmen, 16; tarsus, 18.5.

Dendrornis flavigaster megarhynchus, subsp. nov. Large-

Type, No. 154633, & ad., U. S. Nat. Mus., Biological Survey Collection. Puerto Angel, Oaxaca, Mexico, March 9, 1895, E. W. Nelson and E. A. Goldman.

Distribution. — Pacific coast of Oaxaca, and perhaps adjacent part of Guerrero, north of the Isthmus of Tehuantepec.

Subspecific characters.—Larger, with a longer and much heavier bill than either D. flavigaster or D. flavigaster mentalis; nearly intermediate between the two in color.

Dimensions of type. - Wing, 119; tail, 92; culmen, 45; tarsus, 25.

General notes.—D. flavigaster is restricted to the wooded mountain slopes of western Mexico from the Territory of Tepic south to Guerrero where it grades into D. f. megarhynchus. The range of D. f. mentalis is restricted to Sinaloa and the bordering west slope of the Sierra Madre in Tepic and Durango.

Xanthoura luxuosa speciosa, subsp. nov. Jalisco Green Jay.

Tyre, No. 166055, ♂ ad., U. S. Nat. Mus., Biological Survey Collection. San Sebastian, Jalisco, Mexico, March 13, 1897, E. W. Nelson and E. A. Goldman.

Distribution. — Tropical and subtropical parts of western Jalisco, southern Sinaloa and Tepic.

Description of type.—Nasal tufts and cheek patches intermediate between smalt blue and French blue; crown pale almost campanula blue; spot over and under back part of orbit white, edged with blue; forehead white, shaded with pale yellow; basal part of feathers on entire crown sulphur yellow; black area on sides of head, chin, throat and forebreast, also green on back and tail, about as in typical X. luxuosa; sides of neck, a well-marked border to black of breast, and median ventral line thence to vent, chrome yellow; sides of body washed with brighter green than in X. luxnosa; under tail-coverts and lateral tail feathers uniform chrome yellow of a richer shade than on breast and median line.

Dimensions of type. - Wing, 125; tail, 150; culmen, 29; tarsus, 41.5.

General notes.—This well-marked subspecies may be at once distinguished from the other races of X. luxuosa by the white spots above and below the eyes, the yellow bases of the feathers on the crown and the yellow on the sides of the neck, around the border of the black on the breast, and along the middle of the lower parts. Two specimens in the National Museum from Colima are intermediate between the present form and X. l. vivida but are nearest the latter.

Callothorus æneus assimilis, subsp. nov. SMALL RED-EYED COWBIRD.

Type, No. 144490, Jad., U. S. Nat. Mus., Biological Survey Collection. Acapulco, Guerrero, Mexico, January 25, 1895, E. W. Nelson and E. A. Goldman.

Distribution. — Pacific coast of Mexico from southern Jalisco and Colima to Chiapas.

Subspecific characters. — Male similar to C. æneus but much smaller. Female unknown.

Measurements of type. — Wing, 114; tail, 80; culmen, 21; tarsus, 30.

General notes.—Birds from San Blas, Tepic, are intermediate in size between typical C. eneus from Mazatlan and C. a. assimilis from Colima and the interior of southern Jalisco.

Sturnella magna alticola, subsp. nov. Highland Meadow-LARK.

Type, No. 144524, & ad., U. S. Nat. Mus., Biological Survey Collection. Ocuilapa, Chiapas, Mexico, August 21, 1895, E. W. Nelson and E. A. Goldman.

Distribution. — Pacific coast of Mexico from Salina Cruz, Oaxaca, to Tonala, Chiapas, and thence through the high interior of Chiapas and the highlands of Guatemala at least to Dueñas.

Subspecific characters.—Similar to S. magna of the eastern United States but intermediate in size between it and the pigmy S. m. inexspectata; the bill smaller than in S. magna but tarsus relatively and absolutely longer, averaging about 43 mm.; yellow of throat extends up on middle of whitish malar stripe but never occupies all of it as in S. neglecta.

Dimensions of type. - Wing, 113; tail, 70; culmen, 32; tarsus, 43.

General notes.—This form may be readily separated from magna, mexicana, inexspectata and hoopesi by its proportions and by the yellow on the malar stripe, and from neglecta by its darker colors.

Quiscalus macrourus obscurus, subsp. nov. Guerrero Grackle.

Type, No. 144595, & ad., U. S. Nat. Mus., Biological Survey Collection. Acapulco, Guerrero, Mexico, January 14, 1895, E. W. Nelson and E. A. Goldman.

Distribution. — Pacific coast region of Mexico from San Blas, Tepic, to southern Guerrero.

Subspecific characters. — Similar to but smaller than true 2. macrourus Males scarcely distinguishable in color but females very much darker than those of the typical bird.

Description of type. — Above brownish black glossed with dull greenish; head a little browner than middle of back; below very dark almost blackish with greenish; throat and neck only slightly paler than rest of under parts.

Dimensions of type. - Wing, 159; tail, 162; culmen, 32; tarsus, 45.

Amphispiza bilineata pacifica, subsp. nov. Sonora Blackthroated Sparrow.

Type, No. 164339, Q ad., U.S. Nat. Mus., Biological Survey Collection. Alamos, Sonora, Mexico, December 29, 1898, E. A. Goldman.

Distribution. — Pacific coast region of southern Sonora and northern Sinaloa.

Subspecific characters. —In general appearance similar to true A. bilineata from Texas but with much smaller white spots on ends of tail feathers, in this character agreeing with A. b. deserticola from which it differs in darker color and smaller size.

Dimensions of type. - Wing, 63; tail, 57; culmen, 10; tarsus, 19.

Vireo perquisitor, sp. nov. VERA CRUZ VIREO.

Type, No. 164084, & ad., U. S. Nat. Mus., Biological Survey Collection. Papantla, Vera Cruz, Mexico, March 12, 1898, E. A. Goldman.

Distribution. — Heavily forested coast country in northern Vera Cruz. General characters. — Resembles V. noveboracensis but smaller with darker, slenderer bill, and much darker and duller colors above and below, especially on throat and breast.

Description of type.—Bill rather slender, black; lores orange yellow; crown and rest of dorsal surface olive green, slightly darkest on crown and greenest on rump; upper surface of wings and tail grayish black, the feathers mostly edged with green like back; wing-coverts the same with yellowish white tips to greater and lesser coverts, forming two well-marked wing bands; eye with narrow white ring; cheeks, ear-coverts and sides of neck dark olive gray; a paler shade of same extending as a dark wash over pale greenish yellow of chin and throat and over darker greenish yellow of breast and sides of body; a small whitish area on middle of belly; abdomen mainly, and all of under tail-coverts, Naples yellow.

Dimensions of type. - Wing, 57; tail, 45; culmen, 11.5; tarsus, 18.

Vireo amauronotus strenuus, subsp. nov. Chiapas Vireo.

Type, No. 143399, Q ad., U. S. Nat. Mus., Biological Survey Collection. Tumbala, Chiapas, Mexico, November 5, 1895, E. W. Nelson and E. A. Goldman.

Distribution. — Heavily forested mountain slopes up to 5000 feet in northern Chiapas.

Subspecific characters. — Smaller than true V. amauronotus with longer, slenderer bill; crown and back darker, more smoky brownish (former almost blackish) with less greenish shading on back and wings; color of under parts same as in V. amauronotus.

Dimensions of type. - Wing, 68; tail, 47; culmen, 12.5; tarsus, 18.

Basileuterus belli scitulus, subsp. nov. Guatemalan Warbler.

Type, No. 143293, & ad., U. S. Nat. Mus., Biological Survey Collection. Todos Santos, Guatemala, December 30, 1895, E. W. Nelson and E. A. Goldman.

Distribution. - Highlands of Chiapas and Guatemala.

Subspecific characters. — Larger than B. belli from northeastern Mexico, and decidedly darker green on back and darker yellow on under parts with heavier wash of green on sides.

Dimensions of type. - Wing, 65; tail, 61; culmen, 12; tarsus, 23.

General Notes. — An average male of nearly typical B. belli from northeastern Mexico (Mt. Zempoaltepec) measures as follows: Wing, 57; tail, 60; culmen, 11; tarsus, 22.5.

Geothlypis trichas modestus, subsp. nov. SAN BLAS YEL-LOWTHROAT.

Type, No. 157204, & ad., U. S. Nat. Mus., Biological Survey Collection. San Blas, Territory of Tepic, Mexico, June 12, 1897, E. W. Nelson and E. A. Goldman.

Distribution. — West coast of Mexico from southern Sinaloa south at least to Colima.

Subspecific characters. — Smaller than typical G. trichas from the eastern United States, with the green of back darker, more brownish olive and brownish flanks; black frontlet and white border to same nearly as in G. t. occidentalis.

Dimensions of type. - Wing, 52; tail, 49; culmen, 12; tarsus, 19.

General notes. — This small dark form is resident in the area given for its range and we took young birds at San Blas in June. The young as well as the adults are distinguishable by their dark color.

Thryothorus felix grandis, subsp. nov. Morelos Wren.

Type, No. 142949, & ad., U. S. Nat. Mus., Biological Survey Collection. Yautepec, Morelos, Mexico, January 18, 1893, E. W. Nelson.

Distribution. — Southwestern Puebla, Morelos and adjacent part of Guerrero.

Subspecific characters. — Much larger than the other forms of this species; paler than true T. felix and darker than the pale Sinaloa form.

Dimensions of type. - Wing, 60; tail, 61; culmen, 18; tarsus, 23.

General notes. — These Wrens are very common in brushy places of the arid and semitropical country they inhabit, and like their near relatives are very musical.

Harporhynchus curvirostris maculatus, subsp. nov. Sonora Thrasher.

Type, No. 164734, & ad., U. S. Nat. Mus., Biological Survey Collection. Alamos, Sonora, Mexico, December 23, 1898, E. A. Goldman.

Distribution. — Southern Sonora, northern Sinaloa and southwestern Chihuahua (on western slope).

Subspecific characters. — Most closely related to H. c. occidentalis from which it may be distinguished by its darker colors and smaller size.

Dimensions of type. — Wing, 105; tail, 115; culmen, 29; tarsus, 36.

General notes. — This is the darkest of all the races of *H. curvirostris* and has a heavy wash of brownish gray on the lower parts which becomes heaviest on the distinctly spotted breast. The abdomen and under tail-coverts are deep fulvous buffy washed with gray.

A NEW SUBSPECIES OF THE GENUS HYLOCICHLA.

BY REGINALD HEBER HOWE, JR.

SINCE I published my paper on 'The Ranges of Hylocichla fuscescens and Hylocichla fuscescens salicicola' in 'The Auk' for January, 1900 (Vol. XVII, No. 1, pp. 18-25), I have had quite a number of additional specimens sent me for examination and identification. These have forced me to recognize that a subspecific difference exists between the Hylocichla fuscescens salicicola of the West and the bird inhabiting Newfoundland, which in my former paper I referred to this same race. I noticed at that time that a slight difference did exist, but did not deem it worthy of separation; not being in favor of describing slight variations. I am now, however, of the opinion that the Newfoundland bird is subspecifically distinct from the western salicicola, though nearer this race than to Hylocichla fuscescens. This difference, now apparent, proves the necessity of having, in describing species and subspecies, very large series with which to work. My former paper was based on the examination of far more specimens than a great many of our recognized subspecies have been described from, and yet the addition to that series has proved that if the western race salicicola is recognized the race inhabiting Newfoundland also must be, or in other words that the former series of thirty-six specimens only barely suggested what the addition of eleven more specimens proves.