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STUDIES OF PERUVIAN BIRDS. XX¹

NOTES ON THE GENUS SYNALLAXIS

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The present paper continues the discussion of new forms diagnosed in No. XVIII of the series (American Museum Novitates, No. 819), and of their affines.

Names of colors, when capitalized, indicate direct comparison with Ridgway's 'Color Standards and Color Nomenclature.'

Synallaxis azarae carabayae Zimmer

Synallaxis azarae carabayae Zimmer, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 3—Santo Domingo, southeastern Perú; or; Amer. Mus. Nat. Hist. DESCRIPTION OF TYPE.—Forehead Chaetura Drab X Dark Grayish Olive (extending backward 6 mm. from the exposed base of the culmen); crown, occiput, and nape dark Sanford's Brown; back dark Brownish Olive. Lores broadly whitish on upper portion, dusky with paler tips on lower portion; superciliary line over eve continuous with forehead and similarly dark, becoming paler gray over the auriculars; auriculars sooty; malar region Deep Mouse Gray; sides of the neck like the back; chin and throat with black bases and narrow whitish tips (becoming grayish on the lower portion) leaving a noticeable amount of black exposed on the lower throat; breast and sides Deep Mouse Gray X Deep Neutral Gray; belly Pale Smoke Gray in effect, being somewhat mottled in pattern with alternating spots or lunules of slightly darker and lighter tones; flanks Brownish Olive; under tail-coverts a little grayer. Remiges Fuscous-Black with outer margins Burnt Sienna X Sanford's Brown except toward the tips; upper wing-coverts almost as deeply rufescent; under wing-coverts Mars Yellow X Ochraceous-Tawny, darker (near Amber Brown) toward base of primaries, but under primary-coverts gray; inner margins of remiges dull Fawn Color. Tail light Auburn X Chestnut, with a dull, dark olive shading at tips and along inner margins of the rectrices. Bill (in dried skin) blackish, with a paler area on the gonys near its base; feet Clove Brown. Wing, 55 mm.; tail, 85.5; exposed culmen, 10; culmen from base, 14; tarsus, 21.

Remarks.—Female not available for description.

Some of the differences separating this form from azarae were mentioned by Dr. Chapman (1926, Bull. Amer. Mus. Nat. Hist., LV, p. 430) although he was unwilling to separate a distinct subspecies on these bases. Nevertheless, the characters appear to be constant and locally

¹ Earlier papers in this series comprise American Museum Novitates, Nos. 500, 509, 523, 524, 538, 545, 558, 584, 646, 647, 668, 703, 728, 753, 756, 757, 785, 819, and 860.

restricted, and for a more satisfactory discussion of the distributional problems involved in this species it may be well to have a name for the form in question. It is not an intermediate form in any respect, but, on the contrary, is one extreme of the entire series of variations within the species, the darkest of all the subspecies.

The closest relative of *carabayae* is *infumata* of the Junín region of central Perú, but between the ranges of these two forms, perhaps a little to one side, is a population in the Urubamba Valley that cannot be referred to either. Furthermore, it possesses certain features distinguishing it from typical *azarae* from whose range it is separated by the interposition of *carabayae*. This form also I have recognized as distinct.

Records presumably assignable to *carabayae* are from Marcapata, Ollachea, Inca Mine, and Uruhuasi ("Chuhuasi").

Synallaxis azarae urubambae Zimmer

Synallaxis azarae urubambae Zimmer, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 3—Torontoy, Urubamba Cañon, Perú; &; Amer. Mus. Nat. Hist.

DESCRIPTION OF TYPE.—Forehead Dark Olive Gray X Deep Mouse Gray (for 7 mm. back from exposed base of culmen); crown, occiput, and nape faintly warmer than Sanford's Brown; back near Deep Gravish Olive. Lores whitish above, with dusky tips; lower portion dusky; superciliary stripe Neutral Gray; auriculars and malar region dark Neutral Gray; chin and throat black at the bases of the feathers, white at the tips, which are narrower on the lower throat; breast dark Neutral Gray; sides faintly browner; flanks slightly browner than Deep Olive; under tail-coverts a little grayer; belly whitish with some development of grayish lunules near the tips of the feathers. Remiges Chaetura Drab with outer margins of primaries Snuff Brown X Saval Brown at base, Saccardo's Umber distad; secondaries and tertials edged with Saccardo's Umber; upper wing-coverts warm Sanford's Brown; under wing-coverts deep Cinnamon-Buff X Ochraceous Buff, but under primary-coverts dusky with whitish tips; inner margins of remiges narrowly Avellaneous. light Bay along the shafts, but margins and tips obscured with a dusky grayish or brownish shade; outermost pair entirely dusky olive grayish, without rufous. Maxilla (in dried skin) blackish; mandible dull yellowish, with dusky base and tip; feet Clove Brown. Wing, 57 mm.; tail, 82.5; exposed culmen, 11; culmen from base, 15; tarsus, 21.5.

Remarks.—Female similar to the male but with breast slightly paler gray; belly more pronouncedly whitish but with darker grayish subterminal lunules usually quite strongly marked.

A female from Santa Rita has the cap as pale rufous as some examples of azarae from Bolivia, and the outer margins of the remiges are more rufescent than in the average Urubamba Valley skin, also approaching azarae, but the heavy markings of the belly exceed any female of azarae at hand. A female from Occobamba Valley has the

abdominal markings reduced, but the outer margins of the remiges are dull, as in typical *urubambae*.

In general appearance, *urubambae* is closer to *azarae* than to either *infumata* or *carabayae*, its nearest neighbors geographically. The combination of characters in this form prevent its association with any of the three forms mentioned.

Records are from Cuzco as well as from the localities given in the list of specimens examined.

Synallaxis azarae infumata Zimmer

Synallaxis azarae infumata Zimmer, 1925 (May 20), Field Mus. Nat. Hist. Publ., Zool. Ser., XII (8), p. 103—Chinchao, Dept. Huánuco, Perú; ♂; Field Mus. Nat. Hist.

Birds from the Junín region are paler than *carabayae* and darker than *urubambae*, with a broader frontal band than either, and belong unquestionably to this form described from a little farther north, on the Huallagan side of the Junín highlands.

Although I have not re-examined the specimen in the present study, I believe that the female from Molinopampa, which I once referred doubtfully to this form, belongs to *fruticicola*. Other skins now at hand from the same general region are referable to *fruticicola* of which I had no typical specimens in 1925.

Records assignable to *infumata* are from Ninabamba, Paltaypampa, Pumamarca, and Garita del Sol.

Synallaxis azarae fruticicola Taczanowski

Synallaxis fruticicola Taczanowski, "1879" (? = 1880), P. Z. S. London, p. 670—Tambillo, Peru; or; type formerly in Warsaw Mus., now lost.

A series of sixty-eight specimens from northern Perú and southern Ecuador represents an assemblage of variations which has been known collectively as *fruticicola*. Typical *fruticicola*, however, is near one end of the series while near the other end is a form so distinct in its characters that its recognition by name is justified.

Typical fruticicola, from the highlands of the middle Marañón Valley, is a relatively dark bird compared to the examples from southern Ecuador, although it is quite distinct from infumata of the Junín region. In distinction from infumata, it has a more clearly white belly, a paler and more ashy gray chest, a lighter average color on the mantle and flanks, a more or less definite hue of ochraceous on the superciliary stripe above

the auriculars, and a paler average hue of rufous on the cap and wings. Specimens from the eastern side of the central Andes of Perú, in the Huallagan drainage, are slightly darker than the average, showing an approach toward *infumata*, but they are closer to *fruticicola*. On the other hand, birds from the western side of the western Andes in Perú average paler in color, particularly on the back and top of the head but the upper wing-coverts and the outer margins of the remiges are as in typical *fruticicola* and the frontal band is equally wide. These birds also may be referred to *fruticicola*, although they unquestionably show a tendency toward the south-Ecuadorian form.

Interestingly, this tendency is not entirely controlled by the position of the locality with reference to Pacific or Marañón drainages. Thus San Pedro, Levanto, La Lejia, Lomo Santo, and Charapi are all in the middle Marañón drainage and their birds are virtually topotypical and of average fruticicola character. Chaupe is also in this general area though a little nearer the south-Ecuadorian region than the other localities mentioned, and birds from this locality are variable, some a little paler, some of average character. On the other hand, Chugur is just across the Andes on the Pacific side, but its birds also are typical fruticicola, although a skin from El Tambo, near the crest of the ridge some distance to the northward, is like a Palambla specimen and various examples from Taulis and Seques—the paler extreme within the bounds of fruticicola.

Records which may be assigned to *fruticicola* are from Tambillo, Cutervo, Paucal, and San Martin.

In the original description of this form, Taczanowski refers to his earlier recording of two males from Tambillo as S. frontalis in P. Z. S. London, 1879, p. 230. A glance at this earlier reference reveals the apparent recording of one male of "frontalis" from Pacasmayo! The wording of the text, including date, number of specimens, place of capture, and color of the iris, is exactly the same as that given on the following page for S. stictothorax, and it may be presumed that the printed line was duplicated by mistake. In any case, Taczanowski's remarks in the discussion of fruticicola show that "Pacasmayo" is an obvious error in the case of the present form.

In southwestern Ecuador, the palest extreme of all is found, distinct from fruticicola, even in its pale variant, as from the still darker media of northern Ecuador. The back is paler and buffier brown, the frontal band is narrower, and the cap and wing-patch are paler rufous. This form may be known as follows.

Synallaxis azarae ochracea, new subspecies

Type from San Bartolo, Alamor Range, Ecuador; altitude 7500 ft. No. 171,-426, American Museum of Natural History. Adult male collected September 5, 1921, by George K. Cherrie and Geoffrey Gill.

DIAGNOSIS.—Similar to S. a. elegantior of eastern Colombia and western Venezuela, but colors averaging slightly paler except that the lores are less purely (more grayish) white and the auriculars possibly average a little darker gray.

Similar also to S. a. fruticicola of northern Perú (middle Marañón Valley), but paler above; back more buffy brown; crown and nape paler rufous; frontal band narrower; rufous of upper wing-coverts and outer margins of remiges clearer and paler.

Range.—Southern Ecuador, in the Subtropical Zone, north to the Río Chimbo. Description of Type.—Forehead narrowly Light Grayish Olive (for 5 mm. from exposed base of culmen); remainder of the top of the head and hind neck bright Cinnamon Rufous; mantle pale Buffy Olive; rump and upper tail-coverts Light Brownish Olive. Lores whitish, with dusky tips most pronounced on lower portion; upper and lower eyelids narrowly white; supra-auricular stripe inclined to Ochraceous-Buff, not sharply defined from the color of the crown and occiput; auriculars dusky gray; malar region slightly paler gray; chin and throat white, with blackish bases not quite concealed on the lower throat; breast whitish, with a very slight grayish tinge; sides Pale Smoke Gray, passing into brownish Isabella Color on the flanks; under tail-coverts paler buffy, with whitish tips. Remiges dull sooty blackish, with outer margins and upper wing-coverts like the crown; under wing-coverts deep Ochraceous-Buff; inner margins of remiges narrowly Vinaceous Buff. Tail light Auburn. Bill (in dried skin) dark dull blackish, paler on lower mandible; feet light brown. Wing, 55 mm.; tail, 94.5; exposed culmen, 11; culmen from base, 15; tarsus, 20.

Remarks.—Female similar to the male.

Above Zaruma and at Las Pinas and Salvias, in the same general region, there is again a tendency toward darker hues, probably due to the approach of *media* from northern Ecuador. One female from above Zaruma has the frontal band a little broader than usual but the colors are as in the other Zaruma specimens. A female from somewhere near Naranjo, on the Río Chimbo, also has a broader frontal band and, in addition, has the mantle a little duller in tone than average *ochracea*. A male from Loja, on the eastern side of the Ecuadorian Andes, likewise has a grayer back and has also a slightly darker chest, auricular region, and flanks. Other Loja birds are inseparable from typical *ochracea*. All these dark tendencies appear to be rather definitely in the direction of *media* although the general effect is somewhat like that shown by the examples of *fruticicola* from the Pacific side of the Andes in Perú.

Typical *media* ranges down the Andes of Ecuador as far as El Paso, near Nabon. It has a very broad frontal band, a dark brown back, a regularly gray, not ochraceous, superciliary stripe, and a dark grayish breast, somewhat as in *infumata*, although the gray is duller than in

that form and the rufous color of the cap and wing-patch is paler. In general, it is notably darker than *ochracea*.

There are two skins from El Paso and both are quite typical *media* although this locality is not far from Zaruma where the birds are nearer *ochracea*. Furthermore, the locality on the Río Chimbo (above Naranjo) is well to the northward of El Paso but probably at a lower elevation, though it is impossible to say with certainty since the exact locality is in doubt.

In general, the Ecuadorian specimens of *media* are all from higher elevations than *ochracea*, ranging from 8180 feet up to 10,800, while *ochracea* seems to reach its upper limit somewhere near 8200 feet. Nevertheless two skins from Pallatanga (4800 feet) and one from Cocó 2425 feet) seem to be closer to *media* than to *ochracea*.

But for these exceptions, it would be possible to consider *media* as occupying the Temperate Zone in Ecuador (although it descends in part to the Subtropical Zone in Colombia) while *ochracea* is restricted to the Subtropical zone (cf. Chapman, 1926, Bull. Amer. Mus. Nat. Hist., LV, p. 429). In any case, as pointed out by Dr. Chapman, they have not been found together at any locality. The localities (Pallatanga and Cocó) where *media* descends to the Subtropical Zone in Ecuador are slightly farther north than any locality of record from *ochracea*, and, like the most southern locality for *media* (El Paso), are more elevated than the localities for *ochracea* in the same latitude. The distributional "barriers" are, therefore, zonal when they are not geographical. More intensive collecting in both zones in the area between Pallatanga and El Paso (Nabon) should provide further details necessary for positive conclusions on this interesting condition.

It is evident, however, that *media* occupies an extensive area between the ranges of *ochracea* of southern Ecuador and *elegantior* of eastern Colombia and western Venezuela. Some skins of *elegantior* are exceedingly close to *ochracea*, especially to the examples from the Zaruma region which are darker than typical birds; but the darker skins of *ochracea* tend to have the auriculars deeper gray and the lores also darker and more clouded with grayish or with more prominent dusky tips to which the more purely white lores and light gray auriculars of *elegantior* offer more definite contrast. It must be confessed that if *elegantior* and *ochracea* had contiguous ranges, it might be inadvisable to separate them subspecifically on such slight characters, but with such geographic segregation as exists, this distinction appears to be justified.

Strangely enough, there is a definite alternation of characters

throughout the specific range which is rather striking. Thus azarae of central-northern Bolivia is moderately pale; carabayae of western Bolivia and southeastern Perú is the darkest of all; urubambae is again moderately pale; infuscata of central Perú is moderately dark; fruticicola of northern Perú is moderately pale; ochracea of southern Ecuador is very pale; media of northern Ecuador and central and western Colombia is relatively dark; and elegantior of eastern Colombia and Venezuela is again moderately pale.

This irregular sequence of variations, it must be confessed, is based largely on a progression of latitudes, from south to north, although it does not follow any meridian. If one may be permitted to wander into the field of speculation, perhaps a smoother concept could be formulated by taking the darker forms as the basic line of development from which the paler forms may have branched. Thus we would have carabayae, infumata, fruticicala, and media, all relatively similar in their dark coloration (although easily distinguishable), and distributed along the Andes from the Carabaya district of southeastern Perú through northern Perú and the higher elevations of Ecuador to central and western Colombia.

The continuity is broken somewhat by urubambae, although this form occupies a restricted area off the main line of the Andes, and again by ochracea, although it is possible that media may interrupt ochracea and pass between Loja and Salvias at high elevations to establish virtual contact with fruticicola near the Cordillera de Zamora and the Nudo de Sabanilla. Such, indeed, may be the cause of the slight differentiation of birds from above Zaruma. In eastern Colombia and Venezuela, elegantior would represent another pale offshoot while, at the southern end of the series, azarae might be taken as a slightly pale development from carabayae if not part of the original dark chain.

This is pure speculation, however, and intensive work is necessary at several critical points before sufficient facts are in hand on which to theorize further. Until the data are more complete, the forms here recognized may be distinguished subspecifically without further attempt to establish lines of connection.

SPECIMENS EXAMINED

- S. a. azarae.—Bolivia: Incachaca, 2 \circlearrowleft , 5 \circlearrowleft ; "Yungas" (type of S. griseiventris Allen), 1 (?).
- S. a. carabayae.—Bolivia: Río Aceramarca, 1 3, 1 (?). Perú: Santo Domingo, 6 3 (incl. type); Inca Mine, 2 3.
- S. a. urubambae.—Perú: Torontoy, 1 \circlearrowleft (type), 1 $[\, \circlearrowleft \,]$; Idma, 1 \circlearrowleft ; San Miguel, 3 \circlearrowleft ; Santa Rita, 2 \circlearrowleft ; Tocopoqueu (Occobamba Valley), 1 \circlearrowleft .

S. a. infumata.—Perú: Utcuyacu, $2 \circlearrowleft$, $1 \circlearrowleft$; Tulumayo, $3 \circlearrowleft$, $2 \circlearrowleft$; Chilpes, $2 \circlearrowleft$, $4 \circlearrowleft$, 1 (?); Rumicruz, $2 \circlearrowleft$, $4 \circlearrowleft$; Chinchao, $1 \circlearrowleft$ (type)¹, $2 \circlearrowleft$; Huachipa, $1 \circlearrowleft$ ¹; Vista Alegre, $1 \circlearrowleft$ ¹.

S. a. fruticiola.—Perú: Lomo Santo, $1 \circlearrowleft$, $1 \circlearrowleft$, $3 \r$?); Charapi, $1 \circlearrowleft$; Chaupe, $4 \circlearrowleft$; El Tambo, $1 \circlearrowleft$; Palambla, $2 \circlearrowleft$; Taulis, $1 \circlearrowleft$, $1 \circlearrowleft$, $1 \circlearrowleft$, $1 \circlearrowleft$; Seques, $1 \circlearrowleft$; Chugur, $1 \circlearrowleft$, $3 \circlearrowleft$; San Pedro, south of Chachapoyas, $1 \circlearrowleft$, $3 \circlearrowleft$; Uchco, $1 \circlearrowleft$, $1 \circlearrowleft$; La Lejia, $3 \circlearrowleft$, $3 \circlearrowleft$, $1 \r$?); Levanto, $1 \circlearrowleft$; Molinopampa, $1 \circlearrowleft$.

S. a. ochracea.—Ecuador: Celica, $2 \circlearrowleft$, $1 \ensuremath{?}$, $2 \circlearrowleft$; Alamor, $4 \circlearrowleft$, $2 \circlearrowleft$; San Bartolo, $3 \circlearrowleft$ (incl. type), $1 \circlearrowleft$; El Chiral, $1 \circlearrowleft$; La Puente, $1 \circlearrowleft$; (no locality), $1 \ensuremath{?}$); Zaruma, $4 \circlearrowleft^2$, $2 \circlearrowleft^2$, $2 \ensuremath{?}^2$; Las Pinas, $1 \circlearrowleft^2$; Salvias, $2 \circlearrowleft$; near Naranjo, $1 \circlearrowleft^2$.

S. a. media.—Ecuador: Mt. Pichincha, 1 &, 2 &; above Nono, 1 &; Malchinque, Otovala, 1 &; Cocó, 1 &; El Paso, near Nabon, 1 &, 2 &; Lloa, 1 &; Yanacocha, 2 &, 1 &; Mojanda Mts., 1 &; Bestion, 1 &, 1 (?); Pallatanga, 1 &, 1 &; Oyacachi, 1 &; Río Sardinas, 1 &; Gualea, 2 &, Ibarra, 3 &; "Quito," 2 (?); "road from the north," 1 &. Colombia: Salento, 2 & (incl. type), 1 (?); Laguneta, 2 &; Valle de los Pappas, 1 &, 4 &; El Eden, 2 &, 2 &; Cerro Munchique, 3 &, 1 (?); above Ibague, 1 &; La Candela, 1 &; Barro Blanco, 1 &; east of Palmira, 1 &; La Laguna, 1 (?); La Palma, 1 &; Santa Elena, 1 &, 1 &.

S.a. elegantior.—Colombia: Páramo do Tamá, 2 \circlearrowleft 1; "Bogotá," 1 \circlearrowleft 1, 10 (?); Choachi, 3 (?); Chipaque, 4 \circlearrowleft 7, 2 \circlearrowleft 9. Venezuela: Culata, 1 \circlearrowleft 7, 1 (?); Valle, 1 \circlearrowleft 7, 1 \circlearrowleft 71; Nevados, 1 \circlearrowleft 9, 1 (?); "Mérida;" 1 \circlearrowleft 7, 1 \circlearrowleft 1, 4 (?).

Synallaxis moesta brunneicaudalis Sclater

Synallaxis brunneicaudalis Sclater, 1858, P. Z. S. London, XXVI, p. 62—[Río Napo, Ecuador]; Lafresnaye coll., type lost.

There has been much discussion about the application of the name "brunneicaudalis," but it is impossible to reach any positive conclusion that is in harmony with all the data. The original description, based on an imperfect specimen, says that the pileum is rufous (the forehead is not mentioned), and Sclater later identified with this form a young bird from Zamora and specimens from Roraima (= S. cabanisi maccon-He also specified, in subsequent accounts, that the forehead is rufous like the crown, but this refinement probably was based on the Roraiman birds which have this character though they belong to a different species. No type locality was given in the original account but the title of the paper shows that it was presumed to be the Río Napo. No specimens of any species with a rufous forehead, likely to be confused with the Roraiman macconnelli, have been found subsequently on the Río Napo, where gray-fronted birds are not uncommon, as is witnessed by the series now at hand. Presumably the error is either in crediting brunneicaudalis to the Río Napo or in identifying it as a rufous-

¹ Specimens in Field Museum of Natural History, Chicago. Not typical.

fronted species. Chapman (1924, Amer. Mus. Novitates, No. 123, p. 7) has adopted the name for the Río Napo and Zamora birds with gray foreheads, attributing Sclater's error in diagnosis to the faulty condition of his type. Since the type is lost and final proof is impossible, there is no reason to find fault with this procedure, and I have adopted the same nomenclature.

Nineteen examples are at hand from eastern Ecuador and a single young bird from west of Moyobamba, Perú, which appears to belong to the same form. The Peruvian bird is molting into adult plumage and clearly shows the broad grayish forehead of the moesta group freshly acquired and coupled with the beginnings of the rufous crown and nape. The breast is strongly tinged with olivaceous which is evidently a remnant of the juvenal plumage since new feathers, still in the sheath, are definitely more gravish. The back is lighter and more olivaceous than in fully adult Ecuadorian birds but a young male from the Río Suno is still lighter olivaceous. Fully adult birds from Perú will be necessary to ascertain the possibility of a recognizable difference in this particular. The rufous upper wing-coverts are marked by dusky brownish tips which are shown also by young Ecuadorian birds but which are absent in the adult plumage.

A specimen from Movobamba was identified by Hellmayr as S. c. cabanisi, but I believe that it properly belongs with the moesta group although I have not examined the specimen in question. According to notes kindly made for me by H. B. Conover, this specimen is immature. with dark brown terminal markings on the upper wing-coverts, and with an olive-gray forehead but with a few rufous feathers appearing on the crown, directly between the eyes. In the normal molt of the head. the forehead early receives its new feathers, although there may be some delay, and if the adult forehead is to be rufous, there is likely to be some indication of it when the anterior crown is molting. So it is in young examples of cabanisi at hand while the Río Seco (Moyobamba) bird and a young male of brunneicaudalis from Río Suno, Ecuador, have a number of rufous feathers on parts of the crown but none on the forehead. Furthermore, young cabanisi at hand do not have dusky tips on the upper wing-coverts. Young brunneicaudalis in ventral aspect are rather more like dark examples of cabanisi than like adult examples of their own species, and without other young birds for comparison, confusion might easily result.

The definite occurrence of brunneicaudalis near Moyobamba, a long way from the next nearest locality for cabanisi, strengthens the belief

that it is only brunneicaudalis which occupies this region. It is not impossible, however, that both forms may occur here.

The series of specimens at hand is interesting as showing the transitional development of the outer rectrices from certain of the upper tail-coverts in the manner I once found shown by Synallaxis azarae infumata (1925, Field Mus. Nat. Hist. Publ., Zool. Ser., XII, p. 105). In most of the specimens at hand the outer rectrices are definitely darker and grayer than the adjacent pair, sometimes hardly longer than the nearby upper coverts (always with much smaller shafts than the sub-external rectrices), and in at least one example quite lost among the upper coverts, leaving the tail with but eight definite rectricial plumes. The subexternal rectrices, and sometimes others also, are tinged with gray, at least terminally, and in the example with but eight tail feathers, the two which constitute the external ones in this case are as gray as the additional ones are in the average skin.

Some trace of this condition is exhibited by S. m. moesta but not to the extent shown by brunneicaudalis.

SPECIMENS EXAMINED

S. m. moesta.—Colombia: "Bogotá" 3 (?); Villavicencio, 1 ♂; Buena Vista, 3 ♂, 3 ♀.

S. m. obscura.—Colombia: La Morelia, $1 \circlearrowleft$, $1 \circlearrowleft$ (type).

S. m. brunneicaudalis.—Ecuador: Río Suno, above Avila, 3 &, 2 \(\rightarrow ; \) below San José de Sumaco, 6 &, 2 \(\rightarrow ; \) mouth of Río Curaray, 2 \(\rightarrow ; \) Zamora, 3 \(\sigma , 1 \) (?). Perú: Río Seco, west of Moyobamba, 1 (?).

Synallaxis cabanisi cabanisi Berlepsch and Leverkühn

Synallaxis cabanisi Berlepsch and Leverkühn, 1890, Ornis, VI, p. 21—Perú (Tschudi coll.); Chanchamayo suggested by Hellmayr, 1925; Mus. Kiel.

A series of specimens from Junín, the upper Ucayali, and southeastern Perú all agree in essential characters and may be referred to typical cabanisi of which the Junín specimens are topotypical.

The specimen from Moyobamba, preserved in Field Museum of Natural History, is the only example recorded from this part of Perú, and I believe is properly referable to S. m. brunneicaudalis as recorded under that species.

There is considerable resemblance between cabanisi and S. m. moesta but it is doubtful if the relationship is more than generic. Both birds have olivaceous under parts (stronger in cabanisi), relatively short, rufous tails, brown backs, rufous caps, and silvery grayish throats. However, cabanisi has the forehead and superciliary region rufous; the

malar region is rather sharply defined from the darker auriculars; the lores are not bordered above by a dusky line; the whitish margins of the throat-feathers usually surround the tips, giving a finely barred rather than streaked appearance; the outer remiges are always well developed and about as rufous as the rest of the tail, and the subexternal ones are proportionately longer than in *moesta* (see account of *S. m. brunnei-caudalis*):

These characteristics, the colors modified in the various subspecies of *moesta* and *cabanisi*, are shared by the forms of the respective species, and may be specific in character. The supposed occurrence of *S. m. brunneicaudalis* and *S. c. cabanisi*, both, near Moyobamba has been explained on a previous page, in the discussion of the *moesta* group.

Certain examples of *cabanisi* show traces of faint brown on the forehead. The type and another male of *S. c. fulviventris* have the forehead broadly brownish, and one female of *S. c. macconnelli* shows the same feature.

S. c. cabanisi has been recorded from Amable Maria, La Merced, Huaynapata, and Yahuarmayo, Perú.

SPECIMENS EXAMINED

S. c. cabanisi.—Perú: Tulumayo, Junín, $2 \circlearrowleft$, $2 \circlearrowleft$, 1 (?); Chuchurras, $2 \circlearrowleft$; Lagarto, upper Ucayali, $3 \circlearrowleft$, $3 \circlearrowleft$; La Pampa, $1 \circlearrowleft$.

S. c. fulviventris.—Bolivia: Yungas, Prov. Cochabamba, 1 \circlearrowleft (type); Todos Santos, 1 \circlearrowleft , 1 \circlearrowleft .

S. c. macconnelli.—British Guiana: Roraima, 5 3, 2 9.

Synallaxis hypospodia Sclater

Synallaxis hypospodia Sclater, 1874, P. Z. S. London, p. 10—Bahia; British Mus.

A female from Santa Ana, Perú, where two other specimens were secured many years earlier, is not certainly distinguishable from skins collected in Bahia and Matto Grosso. The back is very slightly grayer and the tail somewhat darker and more blackish, less brownish; but it is in fresher plumage with which scattered new feathers on some of the other examples compare very closely.

I am unable to satisfy myself that *hypospodia* is conspecific with *spixi* as it has been recently placed. The unusually broad rectrices cannot be matched in *spixi*, nor in any other species I have examined, although they are approached slightly by some examples of the *albescens* group.

The throat pattern also is different from that of spixi. In spixi the whitish tips to the feathers, when reduced in size, take the form of tri-

angular dots, but in *hypospodia* they are narrow terminal bars nearly the full width of the feather, not to be matched exactly in other species though there is a near approach in *S. albigularis*, as well as in *S. propinqua* and *S. tithys*.

The wing-pattern is not exactly like that of spixi but is nearer albescens, as is also the coloration of the top of the head, although the lores are dull as in spixi and also as in albescens albigularis. In most respects, resemblance to albigularis is quite close, but the shape and graduation of the rectrices is quite different as are some other details. Furthermore, if albigularis is really a member of the albescens group, the occurrence of a. albescens in various places with hypospodia is a disturbing factor. Consequently it seems best to consider hypospodia as a distinct species with doubtful affinities.

The localities where *hypospodia* is known to occur are few and widely separated and more information regarding the distribution is greatly to be desired.

SPECIMENS EXAMINED

S. hypospodia.—Brazil: Bahia, 3 ♂, 1 ♀, 2 (?); Matto Grosso, Urucum, 1 ♂, 1 ♀; Agua Blanca de Corumbá, 1 ♂; Rio San Lorenzo, 1 ♂, 1 ♀. Perú: Santa Ana, 1 ♀.

S. spixi.—Brazil: Rio, Therezopolis, 2 \circlearrowleft ; Monte Serrat, 2 \circlearrowleft , 1 \circlearrowleft ; São Paulo, Alto da Serra, 1 \circlearrowleft ; (no locality), 2 (?); Rio Grande do Sul (various localities), 6 \circlearrowleft , 3 \circlearrowleft , 7 (?); Espirito Santo, Santa Barbara de Caparao, 1 \circlearrowleft ; Paraná, Tibagy, 1 \circlearrowleft ; Corvo, 1 \circlearrowleft ; Santa Catharina, Palmital, 1 \circlearrowleft ; Joinville, 1 (?); Minas Geraës, (various localities), 9 \circlearrowleft , 9 \circlearrowleft . Paraguay: east of Coraguasú, 2 \circlearrowleft , 3 \circlearrowleft ; east of Villa Rica, 2 \circlearrowleft ; upper Rio Iguassú, 1 \circlearrowleft , 1 \circlearrowleft .

Synallaxis albigularis Sclater

Synallaxisalbigularis Sclater, 1858, P. Z. S. London, XXVI, p. 63—Río Napo, eastern Ecuador.

There is no question, as pointed out by Dr. Chapman (1931, Bull. Amer. Mus. Nat. Hist., LXIII, pp. 88–91), that the dark, sharp-tailed albigularis of eastern Ecuador and eastern Perú is quite distinct from albescens josephinae of the Roraima and Duida regions (which ranges eastward into Dutch Guiana). There are many points in common between these two forms which suggest specific relationship, but there are other resemblances between albigularis and hypospodia, and albigularis and pudica, which complicate the problem and make it very difficult to determine the true affinities.

There is much variation in certain particulars in the series of albigularis. A male from the mouth of the Curaray, eastern Ecuador, is very dark gray on the breast and sides of the head, and a male from Santa Rosa, upper Ucayali, Perú, is almost as dark, while others of both sexes from both sides of the Amazon are varyingly paler. The palest example is a female from Sarayacu, Perú, which is very pale gray on the chest and has the black bases of the lower throat almost concealed. of white on the lores, the color of the mantle, and the hues of rufous on the cap and wing-patch are similarly variable without any geographic In respect to the shape of the rectrices, however, there is rather pronounced uniformity and without exception the tips of these feathers are acute and the webs partially decomposed, at least margin-The fifth (outer) rectrices are short and usually concealed beneath the under tail-coverts, but occasionally they project slightly. are stiffened and on the under side are whitish to near the tips. casional fresh examples there is a slight rounding of the narrowed tips of the rectrices, particularly the median pair, but this is never to the degree of broad roundness shown by members of the albescens group.

On the other hand, albescens and its conspecies have longer and softer tails with the webs more compact, the shafts more slender and more extensively dark terminally, and the outer (fifth) quills are usually longer than the under tail-coverts. Occasional examples, indeed, show some of the rectrices narrowed toward the tip and even acute, and when somewhat abraded there is considerable resemblance to the corresponding quills of albigularis. Nevertheless they do not appear to be quite the same and I hesitate to place albigularis with the albescens group until this allocation is more clearly shown.

Material at hand shows albigularis to range eastward along the south bank of the Amazon through Teffé to the left bank of the lower Rio Madeira, Brazil. Records from Perú are from Cosñipata, Nauta, Pebas, Iquitos, Yurimaguas, and Moyobamba, to which the material examined adds other localities.

In the study of *albigularis*, a large series of the various forms of the *albescens* group has been examined and certain facts have come to light which may be put on record here.

Typical albescens appears to be more restricted in range than has been supposed, and the birds from the more southern and southwestern localities (western Paraguay, northern Argentina, and Bolivia) are recognizably distinct from the Brazilian coastal form which, however, reaches eastern Paraguay and Matto Grosso.

A different form also appears on the lower Amazon, crossing that stream and extending northward into French Guiana. Birds from Trini-

dad, northeastern Venezuela, and the Orinoco region are consistently distinct from *nesiotis* of Margarita Island and the region of Cumaná, while *occipitalis* of the Mérida region apparently follows the ridge northeastward to Carácas, separating *nesiotis* from an allied form found in the state of Lara which, presumably, is near *perpallida*.

Birds of eastern Colombia are somewhat distinct from the surrounding forms and may well bear a distinct name. West-Colombian birds are quite close to this form but are intermediate between it and Panamanian examples which I am unable to distinguish from the Costa Rican latitabunda, although hypoleuca was described from this region. Specimens are at hand from both sides of the type locality, but these fail to substantiate the characters of hypoleuca, described from a single specimen of unknown sex. Further discussion of these points is given in the descriptions and accounts of the recently separated forms which follow.

Synallaxis albescens australis Zimmer

Synallaxis albescens australis Zimmer, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 2—Puerto Pinasco, Paraguay; 37; Amer. Mus. Nat. Hist.

DESCRIPTION OF TYPE.—Forehead and mantle grayish Hair Brown with slightly paler grayish tips; crown and nape Auburn X Chestnut with rather prominent tips of the color of the back; rump and upper tail-coverts about like the mantle. Lores with a broad white upper portion, dusky on lower half; a narrower superciliary stripe whitish anteriorly, grayer posteriorly; auriculars dull grayish with more whitish shaftstreaks; malar region whitish anteriorly, grayish drab posteriorly; chin and throat white with blackish bases of the feathers concealed; breast dull, pale drab-gray with a slight tendency toward paler shaft-streaks, not conspicuous; belly broadly whitish; flanks Drab; under tail-coverts hardly brighter than the flanks. Remiges dark brown with outer margins slightly paler distally, a little brighter cinnamomeous brown basally; greater upper wing-coverts edged with Sayal Brown, becoming more rufescent basally: rest of upper wing-coverts Sanford's Brown X Auburn; under wingcoverts ochraceous: inner margins of remiges Pale Pinkish Buff. Tail Clove Brown with outer margins of remiges brighter, slightly tinged with rufous brown. Bill (in dried skin) with blackish maxilla; mandible paler especially along gonys. Feet light brown. Wing, 56 mm.; tail, 67; exposed culmen, 10; culmen from base, 13.5; tarsus, 18.

Remarks.—Female much like the male but with chest paler, less grayish.

Synallaxis albescens inaequalis Zimmer

Synallaxis albescens inaequalis ZIMMER, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 2—Villa Bella Imperatríz (Santa Clara), Brazil; ਨਾ; Amer. Mus. Nat. Hist.

DESCRIPTION OF TYPE.—Forehead gray; crown and occiput near Sanford's

Brown; back gray with a slight brownish suffusion. Lores white, with a small dusky area on the lower portion; superciliary stripe gray; auriculars dusky, with whitish shaft-streaks; sides of neck clear, dark gray; chin and throat white, with the blackish bases of the lower throat not entirely concealed; breast Pallid Neutral Gray; belly clear white; flanks Light Grayish Olive; under tail-coverts Light Grayish Olive with more whitish tips. Remiges Chaetura Drab, with narrow outer margins Buffy Brown; median and lesser upper wing-coverts Cinnamon-Rufous × Orange-Rufous; greater series with moderately broad outer margins paler, light Cinnamon-Rufous; under wing-coverts near Cinnamon-Buff; inner margins of remiges dull whitish. Tail light Bister. Bill (in dried skin) blackish, with lower margin of mandible whitish; feet grayish brown. Wing, 54 mm.; tail, 68; exposed culmen, 10.5; culmen from base, 15; tarsus, 19.5.

Remarks.—Females like the males. A subadult female from Borba, Rio Madeira, is somewhat intermediate between S. a. inaequalis and S. albigularis but appears to be more properly referable to inaequalis. One of the middle pair of rectrices is fresh and is slightly acute at the tip, though more broadly pointed than in typical albigularis. Other rectrices are more worn and strongly suggest albigularis, while the color and length of the tail also are as in the Peruvian form, but the dorsum is olive grayish (though dark), the markings on the throat are more like inaequalis, the breast is pale, the flanks are light in color, the lores extensively white, and the auriculars prominently streaked, and the locality is in closer association with the range of inaequalis than with the opposite bank of the Madeira where albigularis is found.

However, the eastern bank of the lower Madeira obviously is a critical region and additional material might show the possible transition between *albigularis* and *inaequalis* which would be helpful in establishing conspecificity.

Synallaxis albescens trinitatis Zimmer

Synallaxis albescens trinitatis ZIMMER, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 2—Princestown, Trinidad Island; σ ; Amer. Mus. Nat. Hist.

Description of Type.—Forehead Light Grayish Olive (for about 10 mm. back from nasal feathering); crown occiput and nape Cinnamon-Rufous × Sanford's Brown; mantle slightly buffier than Light Brownish Olive; rump a little paler. Lores whitish, with a dusky spot on the lower portion; superciliary stripe gray; auriculars grayish, with whitish shaft-streaks; malar region pale gray; chin and throat white with blackish bases of lower throat slightly exposed; breast pale ashy gray, palest medially; belly whitish, with a slight yellowish tinge; flanks Light Brownish Olive × Isabella Color; under tail-coverts slightly duller. Remiges Olive-Brown with outer margins narrowly Buffy Brown; median and lesser upper wing-coverts Ochraceous-Tawny × Ochraceous-Orange; greater series with narrow outer margins paler, dull orange-ochraceous; under wing-coverts white with pale ochraceous-buff tips; inner margins of remiges whitish. Tail light Bister. Bill

(in dried skin) with maxilla dark brown; mandible dull yellowish. Wing, 57 mm.; tail, 75; exposed culmen, 10.5; culmen from base, 14.25; tarsus, 19.5.

Remarks.—Females like the males.

This form is very distinct from *nesiotis* of Margarita Island and Cumaná and is closest to the birds from eastern Colombia which belong to a still different form. From these latter birds they differ principally by the larger rufous patch of the crown and occiput, darker grayish chest, darker sides of the head, and, on average, a browner mantle.

There is no apparent tendency toward the extremely pale grayish coloration of *nesiotis* unless the lighter tints of *trinitatis* as compared with *josephinae* be considered as steps in that direction.

Synallaxis albescens insignis Zimmer

Synallaxis albescens insignis ZIMMER, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 3—Quetame, eastern Colombia; \circ ; Amer. Mus. Nat. Hist.

DESCRIPTION OF TYPE.—Forehead and anterior crown broadly (13 mm. from anterior nasal feathering) dark Mouse Gray; rest of crown and occiput near Sanford's Brown with slight suggestions of olive tips, the rufous area not extended over the nape; nape and mantle Brownish Olive X Light Brownish Olive; rump paler; upper tail-coverts again darker. Lores white; a superciliary stripe largely white, passing into light gray over the posterior part of the auriculars. Auriculars dull gray, slightly brownish in tone, with noticeable white shaft-streaks; malar region anteriorly white, posteriorly Smoke Gray; chin and throat white, with blackish bases faintly exposed on lower throat; breast very pale ashy gray with a slight buffy tinge and with whiter shaft-stripes suggested; belly broadly whitish; flanks paler than Light Brownish Olive: under tail-coverts a little duller than the flanks. Remiges dark brownish, with outer margins near Saccardo's Umber except distally; middle and lesser upper wing-coverts light clear Cinnamon-Rufous, with broad dusky bases concealed; greater series with narrow outer margins paler, largely ochraceous or deep buff; under wing-coverts Cream-Buff × Ochraceous-Buff; inner margins of remiges narrowly Pale Pinkish Buff. Tail dark Olive-Brown on exposed upper surfaces. Bill (in dried skin) with maxilla blackish; mandible pale. Feet light brown. Wing, 57 mm.; tail, 82.5; exposed culmen, 10; culmen from base, 15; tarsus, 20.5.

Remarks.—Males like the females but with breast slightly more grayish, not buffy.

Birds from the lower Magdalena river are somewhat more grayish on the back. Skins from western Colombia also are grayer above and have the outer margins of the greater upper wing-coverts somewhat broader and more rufous like the middle and lesser series, frequently with the whole outer web of this color. In this respect they approach Central American birds but their dorsal coloration is very much grayer and the size of the rufous crown patch is much smaller, frequently much varied by olivaceous tips, none of which appears in the Panamanian or Costa Rican birds examined. On the whole, therefore, I believe the west-Colombian examples are best referred to *insignis* although they may approach the Central American forms.

I am unable to discover any recognizable characters to distinguish a "hypoleuca" of eastern Panamá from latitabunda of Costa Rica and western Panamá. The type locality of hypoleuca is Natá, a little west of the Canal Zone. Skins from Santiago, only a little southwest of Natá, are inseparable from Costa Rican examples, and specimens from "Tocumé," which I believe is "Tocumen," east of the city of Panamá, are still no different. None of these examples shows any resemblance to west-Colombian specimens, sometimes referred to hypoleuca. It is possible that there is a distinct form in extreme eastern Panamá whose characters might appear in occasional examples from farther west, of which the type of hypoleuca may be one. A greater series from Panamá will be necessary to determine the point. For the present, I must refer all the Panamá birds at hand to latitabunda.

SPECIMENS EXAMINED

S. albigularis.—Ecuador: Zamora, 1 \circlearrowleft , 3 \circlearrowleft ; Sabanilla, 1 \circlearrowleft ; mouth of Río Curaray, 2 \circlearrowleft , 3 \circlearrowleft . Perú: Puerto Indiana, 3 \circlearrowleft , 1 \circlearrowleft ; Anayacu, 1 \circlearrowleft ; Orosa, 1 \circlearrowleft ; Sarayacu, 1 \circlearrowleft , 3 \circlearrowleft ; Río Ucayali, Santa Rosa, 1 \circlearrowleft ; Lagarto, 2 \circlearrowleft ; Río Seco, west of Moyobamba, 1 \circlearrowleft , 1 \circlearrowleft . Brazil: Teffé, 1 \circlearrowleft ; Rosarinho, 1 \circlearrowleft .

S. a. albescens.—Brazil: Bahia, Tequié, 1 (?); Morro de Chapeé, 1 ♂, 1 (?); Boa Nova, 1 ♂, 1 ♀; Joazeiro, 1 ♂; Piauhy, Gilbuez, 1 ♂; Goyaz, Fazenda Esperanza, 2 ♀; Matto Grosso, Chapada, 3 ♂, 1 ♀. Paraguay: east of Coraguasu, 2 ♂, 3 ♀; upper Rio Iguassú, 1 ♂, 1 ♀.

S. a. australis.—Paraguay: Puerto Pinasco, 1 & (type), 1 &; San Luis de la Sierra, 1 &; Jauja Moroti, 1 &. Argentina: Suncho Corral, 1 &; Avia Terai, 1 (?); Embarcación, 1 &; La Soledad, 1 &, 2 &; Mocovi, Chaco, 1 &; Buenos Aires, 1 &. Bolivia: Todos Santos, 2 &; Yungas of Cochabamba, 1 &; Mission San Antonio, 1 &, 3 &.

S. a. inaequalis.—Brazil: Rio Amazonas, Villa Bella Imperatríz, 11 & (incl. type), 3 \(\operatrig{?}, 3 \((\), ?); Rio Madeira, Borba, 1 \(\operatrig{?}, 2 \); Arumanduba, 2 \(\sigma^*; 3 \); French Guiana: Cayenne, 3 \(\operatrig{?}, 3 \); Roche-Marie, 3 \(\sigma^*, 1 \) (?); Approuague, 1 \(\sigma^*. \)

S. a. josephinae.—British Guiana: Mt. Roraima, 2 ♂, 1 ♀, 1 (?). Dutch Guiana: near Paramaribo, 1 ♂, 1 ♀, 1 (?); (loc. incert.), 1 ♀. Brazil: Frechal, Rio Surumú, 1 ♀. Venezuela: Mt. Roraima, Philipp Camp, 3 ♂, 1 ♀; Paulo, 1 ♂, 3 ♀; Mt. Duida, Valle de los Monos, 2 ♂, 1 ♀; Savana Grande, 3 ♂; Campamento del Medio, 3 ♂, 4 ♀; Esmeralda, 4 ♂, 2 ♀.

S. a. trinitatis.—Trinidad, Caparo, 3 or; Laventilla, 1 (?); (loc. incert.) 3 (?); Moruga, 2 or; heights of Aripo, 1 or; Princestown, 10 or (incl. type), 4 or; San Fernando, 1 or; Monos Island, 1 or. Venezuela: Bermúdez, Cumanacoa, 2 or, 1 or; Guácharo, 1 (?); San Antonio (Bermúdez) 2 or; Cocallar, 1 or; Cuchivano, 1 or; Río Orinoco, Altagracia, 3 or, 2 or; Caicara, 3 or, 1 or; Suapure, 1 or; Maripa, 2 or, 2 or; Agua Salada de Ciudad Bolívar, 2 or; San Mateo de Caicara, 1 or;

S. a. nesiotis.—Venezuela: Margarita Island, 1 \circlearrowleft , 1 (?); plain of Cumaná, 3 \circlearrowleft , 3 \circlearrowleft ; Campo Alegre Valley, 1 \circlearrowleft ; Santa Ana Valley, 1 \circlearrowleft ; Carupano, 2 \circlearrowleft .

S. a. occipitalis.—Venezuela: Mérida, 1 (?); El Valle, 1 \(\phi \); Los Durainos, 2 \(\phi \); San Antonio (Mérida), 1 \(\phi \); Conejos, 1 \(\sigma \); Caracas, Cotiza, 2 \(\sigma \), 2 \(\phi \).

S. a. perpallida.—Venezuela: Lara, Baraquismeto, 5 3; El Cuji, 2 3, 2 9.

S. a. insignis.—Colombia: "Bogotá." 7 (?); Quetame, 2 ♀ (incl. type); Fusugasugá, 1 ♂; Villavicencio, 2 ♂; San Antonio, 1 ♂; Calamar, 1 ♂; Río Magdalena, 1 ♂; Florida 1 (?); Cali, 3 ♂, 1 ♀; Palmira, 1 ♂, 1 ♀; Caldas, 1 ♂; La Frijolera, 1 ♂; San Isidro, 1 ♂; Medellin, 1 ♂.

S. a. latitabunda.—Panamá: Tocumé, 2 ♂, 2 ♀; Chiriqui, 1 (?); Santiago, Veraguas, 5 ♂, 1 ♀; El Villano, 2 ♂; La Colorado, 2 ♂, 1 ♀. Costa Rica: Turrialba 1 ♀; Buenos Aires, 3 ♂, 1♀.

Synallaxis gujanensis huallagae Cory

Synallaxis gujanensis huallagae Cory, 1919, Auk, XXXVI, p. 274—Lagunas, lower Huallaga, Perú; 🔗; Field Mus. Nat. Hist.

Two specimens are at hand from Perú, and one from the lower Río Napo in eastern Ecuador.

These birds are definitely more grayish in tone than *gujanensis* and *inornata*, especially on the under parts. Some skins of *inornata* (and occasionally of *gujanensis*) are as dark on the upper parts, but they are warmer in tone on the under side. Actually, therefore, *huallagae* is intermediate between *inornata* and *canipileus*.

Records are from the type locality and from Nauta, and the three skins at hand furnish three new localities for this form.

The combined series of gujanensis and inornata is quite variable within certain limits, and it is impossible to draw a definite boundary between these forms. As recognized by Hellmayr, birds from the Tocantins and Tapajoz rivers are not distinguishable from Guianan specimens, but there are numerous examples from all this eastern area which are not very different from average Rio Madeiran skins belonging to inornata. On the other hand, there are many examples from both sides of the Rio Madeira which compare favorably with average gujanensis. With the series at hand the dividing line is most advantageously placed about midway between the Tapajoz and the Madeira rivers. The birds from Teffé, recorded by Hellmayr (1907, Novit. Zool., XIV, p. 52) as gujanensis, belong in the series of inornata.

Synallaxis gujanensis canipileus Chapman

Synallaxis gujanensis canipileus Chapman, 1923 (August 28), Amer. Mus. Novitates, No. 86, p. 11—Río Tavara, Perú; Amer. Mus. Nat. Hist.

The type, of uncertain sex, and a topotypical male appear to be the

only specimens known of this distinct form. In general coloration, this subspecies is much clearer gray than any of the others.

Synallaxis gujanensis maranonica Taczanowski

Synallaxis maranonica Taczanowski, 1879, P. Z. S. London, p. 230—Guajango, Perú; σ ; type formerly in Warsaw Mus., now lost.

There are at hand nine specimens of this form and I have examined four additional skins in the Museum of Comparative Zoölogy.

Compared only with huallagae (the nearest geographical representative), inornata, gujanensis, and columbiana, the affinity of maranonica is not striking, but when canipileus is included, the evidence is more conclusive. Maranonica is darker, clearer gray on the breast and sides than canipileus and the throat is not as extensively whitish; some examples have the throat gray, with no white, but others have a definite white patch in this region. The back is quite definitely brownish, rather light in tone on the anterior part of the mantle and with the lower back sometimes uniform with the anterior region, sometimes strongly rufescent. The rectrices are less acute than in the neighboring forms, being quite rounded in two of the specimens at hand, in which character they agree with albilora.

SPECIMENS EXAMINED

- S. g. gujanensis.—British Guiana: Potaro Landing, 1 3, 1 9; Wismar, 1 3, 1 9; Minnehaha Creek, 1 9. Venezuela: Las Barrancas, 2 3; mouth of Río Chanaro, 1 (?); La Unión, 1 9. Brazil: Faro, 8 3, 6 9, 1 (?); Rio Tocantins, Baião, 3 3, 1 9; Ilha Pirunum, 1 9; Ilha Pae Lourenço, 1 9; Rio Xingú, Porto de Moz, 3 3, 1 9; Tapará, 4 3, 1 (?); Villarinho do Monte, 1 9; Rio Tapajoz, Caxiricatuba, 2 3, 4 9; Tauarý, 1 3, 2 9; Rio Amazonas, Villa Bella Imperatríz, 3 3, 3 9.
- S. g. inornata.—Brazil: Rio Madeira, Borba, 1 \circlearrowleft , 2 \circlearrowleft , 1 (?); Igarapé Auará, 4 \circlearrowleft , 9 \circlearrowleft , 1 \circlearrowleft ; Rosarinho, 6 \circlearrowleft , 9 \circlearrowleft , 2 (?); Santo Antonio de Guajará, 1 \circlearrowleft , 6 \circlearrowleft ; Teffé 1 \circlearrowleft , 1 \circlearrowleft .
- S. g. albilora.—Brazil: Descalvados, 2 &; Urucum, 1 &, 2 &; Palmiras, 1 &; Agua Blanca de Corumbá, 1 &; Rio São Lorenzo, 1 &; Matto Grosso, 1 &. S. g. canipileus.—Perú: Rio Tavara, 1 (?) (type), 1 &.
- S. g. huallagae.—Perú: Sarayacu, 1 3: Puerto Indiana, 1 Q. Ecuador: mouth of Río Curaray, 1 Q.
- S. g. maranonica.—Perú: Perico, 3 \circ ; San Ignacio, 3 \circ , 2 \circ , 1 (?); Bellavista, 3 \circ ¹, 1 \circ ¹.
- S. g. columbiana.—Colombia: Buena Vista, 1 ♂ (type), 1 ♀; Villavicencio, 1 ♂, 1 ♀, 1 (?); "Bogotá," 1 (?).

¹ Specimens in Museum of Comparative Zoölogy, Cambridge.

Synallaxis unirufa ochrogaster Zimmer

Synallaxis unirufa ochrogaster Zimmer, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 4—La Lejia, north of Chachapoyas, Perú; 👩; Amer. Mus. Nat. Hist.

Description of Type.—Whole upper surface Sanford's Brown × Auburn, a little paler on the forehead, approaching Cinnamon-Rufous. Lores blackish, the shading extended narrowly below the eye back to the middle of the orbit; auriculars and sides of neck like the crown; malar region Tawny × Russet; chin and throat near Cinnamon with the blackish bases of the feathers faintly showing through the webs; breast and sides darker than Cinnamon; flanks darker and more rufous, near the color of the back; belly Ochraceous-Buff with a cinnamomeous tinge; thighs dull olive gray; under tail-coverts slightly deeper in color than the belly but tinged with grayish. Wings blackish, with outer margins the color of the back; inner margins of remiges narrowly dull vinous; under wing-coverts bright cinnamomeous. Tail light Bay. Bill (in dried skin) black with base of mandible whitish; feet blackish brown. Wing, 62.5 mm.; tail, 89; exposed culmen, 10.5; culmen from base, 16; tarsus, 23.

Remarks.—A female from the Junín region is darker than the La Lejia birds, though of the same dull tone, and with the belly likewise darker. Taken alone, this specimen appears hardly distinct from one or two of the Ecuadorian birds which approach it in all but the reduced size of the bill. The combined series of Ecuadorian and Colombian specimens of unirufa shows a considerable range of variation which is greater than the difference between the Junín and La Lejia birds, although the whole series of unirufa has a redder tone. Consequently, the Junín specimen may be only the dark extreme of ochrogaster and I treat it as such for the present. A young bird from the Junín region is slightly duller and more olivaceous than a young bird from Ecuador.

SPECIMENS EXAMINED

S. u. unirufa.—Colombia: Bogotá, 1 (?); El Roble, 1 &, 1 (?); El Piñon, 1 &, 1 \, \varphi; Cocal, 2 \, \varphi, 2 \, \varphi, 1 (?); San Antonio, 1 \, \varphi. Ecuador: Baeza, 4 \, \varphi, 1 \, \varphi; upper Sumaco, 1 \, \varphi, 2 \, \varphi; Oyacachi, 1 \, \varphi; Ambato, 2 (?); Zuñac, Río Upano, 1 (?).

S. u. meridana.—Venezuela: Escorial, $2 \circlearrowleft$ (incl. type).

S. u. castanea.—Venezuela: Galipan, 1 \circlearrowleft , 4 \circlearrowleft ; Silla de Caracas, 1 \circlearrowleft ; "La Silla," 1 \circlearrowleft .

S. u. ochrogaster.—Perú: La Lejia, 3 \circlearrowleft ; Huayabamba, 1 \circlearrowleft ; Rumicruz, Junín, 2 \circlearrowleft .

Synallaxis propingua Pelzeln

Synallaxis propinqua Pelzeln, 1859, Sitzb. Akad. Wiss. Wien, math.-naturw. Kl., XXXIV, p. 101—Rio Madeira, below mouth of Rio Mahissy (= Rio Marcy); Vienna Mus.

Synallaxis terricolor Sclater and Salvin, 1866, P. Z. S. London, p. 183—upper and lower Ucayali (= near Cashiboya and near Sarayacu); cotypes in British Mus.

Thirty-one specimens of this interesting species are at hand repre-

senting, for the most part, widely separated localities. Three skins from the right bank of the Tocantins demonstrate a considerable eastward extension of range, but I am unable to find any positive differences between them and the Peruvian and Ecuadorian examples. They may average very slightly clearer gray on the breast, less strongly brownish on the lower back, and darker and grayer on the flanks, but these tendencies are not fixed, being largely overcome by individual variation.

Young birds are colored above like the browner adults, with the throat dull whitish, the breast dull drab, and the outer surface of the wings bright brown only tinged with rufous.

A good series from the lower Río Napo in Ecuador confirms the supposed occurrence of the species in that region.

No close affinities of this species can be determined.

SPECIMENS EXAMINED

S. propinqua.—Brazil: Rio Tocantins, Baião, 2 ♂, 1 ♀; Rio Madeira (left bank), Santo Antonio de Guajará, 2 ♂. Peru: mouth of Río Urubamba, 1 ♂, 2 ♀; Santa Rosa, 1 ♀; Puerto Indiana, 5 ♂, 1 ♀; Iquitos, 1 ♀. Ecuador: mouth of Río Curaray, 7 ♂, 3 ♀; mouth of Lagarto Cocha, 2 ♂, 1 ♀; (eastern Ecuador), 1 (?).

Synallaxis rutilans amazonica Hellmayr

Synallaxis rutilans amazonica Hellmayr, 1907, Novit. Zool., XIV, p. 14—Itaituba, left bank of Rio Tapajoz, Brazil; 9; Rothschild coll., Amer. Mus. Nat. Hist.

A good series of birds from the south bank of the Amazon, from the type locality west to beyond the Río Huallaga in Perú, shows much variation in certain particulars. The normal adult male has the mantle Bay or a little paler, the forehead still paler and the crown and nape with a rather definite tinge of olive subterminally on the feathers, rarely entirely concealed by rufous tips. The rump is dull, dark brown, sometimes rufous anteriorly, and the upper tail-coverts are variably blackish or brownish like the rump. Females have a more or less pronounced olivaceous tone on the mantle, usually partly veiled by the rufous tips of the feathers.

Some examples, however, are very little, if at all, less olivaceous than rutilans and it is problematical to which form they should be referred. Such is one of two males from Calamá, Rio Madeira; the other male is typical amazonica. Two males (one immature) from Astillero, southeastern Perú, are likewise difficult to place. Both have a considerable amount of olive on the mantle, somewhat exceeding any of the specimens of amazonica from other localities, unless the olive-backed Calamá

bird is, truly, an extreme variant of *amazonica* as it has been considered by Hellmayr.

I have only one bird which appears to belong to S. r. tertia, a female from the headwaters of the Rio Roosevelt, and if this accurately represents tertia, the Astillero birds can not be referred to that form.

Specimens from the left bank of the Tapajoz are amazonica whose range thus embraces the area east of the Madeira where Calamá is situated; Astillero is on one of the upper affluents of the Madeira well to the westward. Possibly future collecting will demonstrate a positive connection with rutilans. In the meantime the geographical position of southeastern Perú and the evident individual variation of amazonica justify the temporary assignment of the Astillero birds to amazonica.

Birds from northern Perú, south of the Marañón are like the more eastern specimens of *amazonica*. No tendency is exhibited toward the dark form, *caquetensis*, which occurs across the Marañón to the northward.

Peruvian records include the localities Xeberos, Yurimaguas, and Moyobamba.

In Brazil, east of the Tapajoz, is typical rutilans, ranging eastward to the Tocantins. All of the examples at hand from this region agree in having the scapulars wholly rufous and the lateral interscapulars conspicuously edged with rufous, sharply defined from the olive brown central portion of the mantle, although the whole mantle is sometimes tinged with rufous, a decided tendency toward amazonica.

Probably the type of *rutilans* was a bird of rufous-backed tendencies. Temminck's plate (1823, 'Nouv. Rec. Pl. Col.', Pl. ccvii, fig. 1) apparently shows a bird like *amazonica*, but the description says that the back, lower breast, and belly are olivaceous, tinged with dark red. In any case, Hellmayr has suggested Cametá, Rio Tocantins, as type locality, and in the absence of proof to the contrary, this designation will stand.

The matter becomes of especial importance since enough material is now at hand to show the decided and constant divergence of the brown-backed birds from north of the Amazon as compared with birds from the south bank.

The northern birds may be known as follows.

Synallaxis rutilans dissors Zimmer

Synallaxis rutilans dissors ZIMMER, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 4—Campos Salles, Manaos, Brazil; σ ; Amer. Mus. Nat. Hist.

1936]

Description of Type.—Forehead Burnt Sienna × Sanford's Brown; crown and interscapulars Brussels Brown × Raw Umber, the crown and nape with dusky centers to the feathers; scapulars like the interscapulars but with outer margins and tips Chestnut, inconspicuous or absent on the posterior feathers but strongly developed on the anterior ones: rump near Raw Umber; upper tail-coverts grayish with tips suffused with Raw Umber. Lores grayish black; remainder of sides of head and neck, breast, sides, and upper belly deep Burnt Sienna; chin and throat largely occupied by a broad, oval patch of sooty black; lower belly near Brownish Olive; flanks Prout's Brown; under tail-coverts with blackish bases and grayish tips. Remiges blackish with outer margins Chestnut-Brown, inner margins very narrowly and indistinctly grayish; greater upper wing-coverts blackish, with outer margins and tips Chestnut; median and lesser series Chestnut with dusky bases; under primary-coverts sooty grayish; remainder of under wing-coverts and axillars deep Ferruginous. Tail blackish. Bill and feet (in dried skin) blackish. Wing, 61 mm.; tail, 67; exposed culmen, 11; culmen from base, 14; tarsus, 19.

Remarks.—Female similar to the male or averaging slightly paler. Young birds differ from the adults by much duller coloration; the forehead and sides of the head are dull rufescent; the rufous of the under parts is restricted to a broad pectoral band and is quite pale and dull, sometimes near Cinnamon; the throat patch is grayish, veiled by slightly buffy tips on the feathers. Worn specimens exhibit the pale shafts on the belly as fine streaks, varyingly conspicuous. Birds in fresh plumage sometimes show traces of this same streaking.

There is much variation in the actual tone of coloration and extremes are rather different, even when from the same localities at the same seasons. The absence of the rufous color from the lateral interscapulars is notably constant and even when there is a suggestion of rufous on these feathers it is not likely to be confused with the strong rufous patch on the same region in typical rutilans.

Synallaxis rutilans caquetensis Chapman

Synallaxis rutilans caquetensis Chapman, 1914 (Nov. 21), Bull. Amer. Mus. Nat. Hist., XXXIII, p. 621—Florencia, Caquetá, Colombia; &; Amer. Mus. Nat. Hist.

In addition to the three original specimens from the type locality, I have at hand a female from eastern Ecuador and two males and a female from the mouth of the Río Napo in Perú.

These birds show a regularly deep rufous coloration, darker than Bay, with the pattern of *amazonica*. The tail, as an additional character, is shorter than in *amazonica*, being 57 mm. in the adult males and just over 55 in the adult females; in *amazonica* the males vary in this respect between 59 and 68 mm.; the females, between 59 and 67.

In the long series of amazonica there is no specimen as dark as the

darkest caquetensis and rarely one as dark as the lightest example of the other form, although both subspecies are somewhat variable in hue.

There are no earlier records of caquetensis from Perú.

Farther east along the north bank of the Amazon, west of the Rio Negro, a short-tailed rufous-backed bird occurs which is at the opposite extreme of coloration, averaging paler than *amazonica*. It has been named as follows.

Synallaxis rutilans confinis Zimmer

Synallaxis rutilans confinis ZIMMER, 1935 (Sept. 17), Amer. Mus. Novitates, No. 819, p. 4—Igarapé Cacao Pereira, Rio Negro (right bank), Brazil; ♂; Amer. Mus. Nat. Hist.

Description of Type.—Forehead light Burnt Sienna, passing imperceptibly into Burnt Sienna × Mahogany Red on the crown, nape, and mantle; rump dull Prout's Brown; upper tail-coverts a little grayer and with the dusky bases less concealed. Lores dull sooty grayish; rest of sides of head like forehead, not sharply defined from the crown, the rufous color continued over the breast and sides in a broad band; belly grayish brown, anteriorly tinged with Chestnut in transition from the pectoral color, and with some cinnamomeous shaft-streaks not very conspicuous; flanks warm dark brown; under tail-coverts dull grayish, with olive-brownish tips. Remiges blackish, with outer margins dull Auburn, darker on primaries; upper wing-coverts with exposed portions slightly darker than the mantle, concealed portions dusky; inner margins of remiges faintly paler than the central portion of the webs; under primary coverts dusky; rest of under wing-coverts near Hazel; tail blackish. Bill and feet (in dried skin) blackish. Wing, 59 mm.; tail, 54; exposed culmen, 11; culmen from base, 15; tarsus, 20.

Remarks.—Female like the male but with a little tendency to olivaceous admixture on the subterminal portion of the mantle feathers. Young birds similar in pattern but with all colors duller.

The series of this form at hand is not large but is quite uniform in respect to the short tail and clear coloration. The males have the tail 51–56 mm.; females, 53–56. As noted earlier, amazonica males have the tail 59–68 mm.; females 59–67. The short tail of confinis is shared by the western form caquetensis, although the brown-backed dissors, also from north of the Amazon, does not show this feature in distinction from rutilans.

The record from Manacapurú (Gydenstolpe, 1930, Ark. Zool., XXI A, No. 25) probably belongs here.

SPECIMENS EXAMINED

- S. r. caquetensis.—Colombia: Florencia, 2 \circlearrowleft (incl. type), 1 \circlearrowleft . Ecuador: mouth of Lagarto Cocha, 1 \circlearrowleft . Perú: Puerto Indiana, 2 \circlearrowleft , 1 \circlearrowleft .
 - S. r. amazonica.—Perú: Chamicuros, 3 o; Chayavitas, 1 Q; Astillero, 2 o

(not typical). Brazil: Teffé, 6 ♂, 6 ♀, 1 (?); Rio Madeira, Rosarinho, 7 ♀; Calamá, 2 ♂ (one not typical); Rio Amazonas, Villa Bella Imperatríz, 7 ♂, 2 ♀, 1 (?); Rio Tapajoz, Itaituba, 3 ♀ (incl. type); Boim, 2 ♀; Igarapé Amorin, 4 ♂, 4 ♀; Igarapé Brabo, 1 ♂, 1 (?).

S. r. tertia—Brazil: Rio Roosevelt, [Camp 21], 1 Q.

S. r. rutilans.—Brazil: Rio Tapajoz, Tauarý, 7 ♂, 1 (?); Aramanay, 1 ♂; Santarem, 1 ♂, 3 (?); Rio Xingú, Porto de Moz, 2 ♂, 1 ♀; Tapará, 2 ♂, 1 ♀; Rio Majary, Recreio, 1 ♂; Rio Tocantins, Cametá, 3 ♂.

S. r. omissa.—Brazil: Pará, 1 ♀ (type); Utinga, 2 ♂, 2 ♀; Mocajatuba, 1 ♂; Prata, 1 ♂; Ananindeua, 1 ♂; Rio Tocantins, Mocajuba, 5 ♂, 2 ♀, 2 (?); Baião, 1 ♂.

S. r. confinis.—Brazil: Rio Negro (right bank), Igarapé Cacao Periera, 2 \circlearrowleft (incl. type); Muirapinima, 1 \circlearrowleft , 3 \circlearrowleft .

S. r. dissors.—Brazil: Rio Negro (left bank), Campos Salles, Manaos, 2 of (incl. type), 2 \(\frac{1}{2} \); Hacienda Rio Negro, 3 of, 2 \(\frac{1}{2} \); Uacará, 1 of; San Gabriel, 1 \(\frac{1}{2} \); Camanaos, 1 of; Obidos, 1 \(\frac{1}{2} \); Faro, 7 of, 3 \(\frac{1}{2} \). Venezuela: Mt. Duida, Esmeralda, 7 of, 6 \(\frac{1}{2} \); Caño León, 2 \(\frac{1}{2} \); Campamento del Medio, 1 of; Playa del Río Base, 1 \(\frac{1}{2} \); Río Pescada, 1 of, 1 \(\frac{1}{2} \); (western) foot of Mt. Duida, 1 of; Boca de Sina, 1 \(\frac{1}{2} \); Río Orinoco, mouth of Río Ocamo, 6 of, 4 \(\frac{1}{2} \); opposite mouth of Río Ocamo, 1 of; Lalaja, 2 \(\frac{1}{2} \); Nicaré, 1 of; La Unión, 1 \(\frac{1}{2} \); Nericagua, 1 of, 1 \(\frac{1}{2} \); Suapure, 2 \(\frac{1}{2} \); La Prición, 2 \(\frac{1}{2} \); Río Cassiquiare, El Merey, 1 \(\frac{1}{2} \); Río Huaynia, junction with the Cassiquiare, 2 of, 1 \(\frac{1}{2} \). Dutch Guiana: Paramaribo, 1 \(\frac{1}{2} \).

Synallaxis cherriei napoensis Gyldenstolpe

Synallaxis cherriei napoensis Gyldenstolpe, 1930, Ark. Zool., XXI A, No. 25, p. 3—near Río Napo, East Ecuador; $\, \circ \, ; \,$ Stockholm Mus.

Synallaxis cherriei saturata Carriker, 1934 (June 25), Proc. Acad. Nat. Sci. Phila., LXXXVI, p. 321—Moyobamba, Perú; 🔗; Acad. Nat. Sci. Phila.

Two specimens, neither fully adult, from Río Seco, west of Moyobamba, apparently belong to this form. The immature plumage has never been described and there is a possibility that the two birds in hand do not belong to this species, but to some unknown group. However, they show many points in common with the type of *cherriei* (proposed by Gyldenstolpe in 1930 as a new name for *Synallaxis rufogularis* Cherrie, nec Gould) and come from a region where a form of *cherriei* has been found, all of which points to their relationship to this group.

Immature specimens of *S. rutilans amazonica*, like those of other members of the *rutilans* group, have the throat patch well marked and sooty (less deeply blackish than the adults), but the two birds in question have the throat whitish or pale ochraceous with narrow dusky tips; the back is darker and browner than in *cherriei*; the rufous color of the forehead, the superciliary region, the sides of the head and neck, and the breast, is not fully developed, but is indicated by a pale rufescent

tint and a few feathers of deeper color in some places. The tail-feathers are relatively narrow and the tail-length agrees with that of the type of *cherriei*.

A young female from Moyobamba, in Field Museum of Natural History, which has been assigned to *S. rutilans amazonica*, apparently belongs to the *cherriei* group as has been conjectured by Carriker (*loc. cit.*). Mr. Conover writes me that this specimen has a whitish throat with dusky tips on the feathers, which accords well with the skins in hand from near the same locality which I have assigned to *S. c. napoensis*.

The description of "saturata" makes no mention of napoensis, but the characters given for it are those of napoensis, a darker and browner back than in *cherriei*, and a darker abdominal region.

Much more material is necessary to establish the lines of distribution, but I agree with Gyldenstolpe and Carriker that the *cherriei* group is specifically distinct from the *rutilans* group, and restricted to the higher elevations of the Tropical Zone.

SPECIMENS EXAMINED

S. c. cherriei.—Brazil: Barão Melgaço, 1 or (type).

S. c. napoensis.—Perú: Río Seco, west of Moyobamba, 1 3, 1 (?).

