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ZOOLOGICAL SERIES

FIELD MUSEUM OF NATURAL HISTORY

FOUNDED BY MARSHALL FIELD, 1893

VOLUME XIII

CATALOGUE OF BIRDS OF THE AMERICAS

BY

CHARLES E. HELLMAYR

ASSOCIATE CURATOR OF BIRDS

PART IX

TERSINIDAE - THRAUPIDAE

WILFRED H. OSGOOD

CURATOR, DEPARTMENT OF ZOOLOGY

EDITOR

PUBLICATION 365



CHICAGO, U.S.A.

OCTOBER 6, 1936



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VOLUME XIII

CATALOGUE OF BIRDS OF THE AMERICAS  
AND THE ADJACENT ISLANDS

IN

FIELD MUSEUM OF NATURAL HISTORY

INCLUDING ALL SPECIES AND SUBSPECIES KNOWN TO OCCUR IN NORTH AMERICA,  
MEXICO, CENTRAL AMERICA, SOUTH AMERICA, THE WEST INDIES, AND  
ISLANDS OF THE CARIBBEAN SEA, THE GALAPAGOS ARCHIPELAGO,  
AND OTHER ISLANDS WHICH MAY BE INCLUDED ON  
ACCOUNT OF THEIR FAUNAL AFFINITIES

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## PREFACE TO PART IX

The present part of the "Catalogue of the Birds of the Americas" is devoted mainly to the enumeration of the species and subspecies of the birds known vernacularly as tanagers. The limits of this family, which is very closely related to the finches, are much disputed among ornithologists, and the assignment of certain genera to one group rather than to the other is largely arbitrary, owing to the absence of information as to their anatomical structure. For the sake of convenience the author has closely followed the late Robert Ridgway's definition of the family. Consequently, a number of genera of finch-like appearance, such as *Arremon*, *Buarremon*, *Atlapetes*, *Pselliophorus*, *Saltator*, and others, have been excluded from the tanagers, although the last word on their classification has not yet been said. It is even possible that some other groups, which find a place in this Part, on further research may prove to be of Fringilline affinities.

Much care has been taken in ascertaining, whenever it was feasible, the present location of type specimens which served for the description of new species and subspecies.

The rejection of Brissonian genera, in consequence of a vote passed by the International Zoological Congress of Padua, entails only one nomenclatorial change: namely, the substitution of *Calospiza* for *Tangara*.

Although the author has had a part of Field Museum's material for reexamination while completing his manuscript in Vienna, he has relied to some extent upon assistance from Mr. E. R. Blake of the resident staff of the Museum for allocations in the lists of specimens.

Several institutions and private individuals have again rendered material help, either by the loan of material or by information regarding specimens in their care. I wish to acknowledge particularly my indebtedness to M. J. Berlioz, of the Muséum d'Histoire Naturelle, Paris; Dr. F. M. Chapman and Mr. J. T. Zimmer, of the American Museum of Natural History, New York; Mr. N. B. Kinnear, of the British Museum; Professor A. Laubmann, of Munich; Mr. James L. Peters, of the Museum of Comparative Zoology, Cambridge, Massachusetts; Dr. Robert Mertens, of the Senckenberg Natural History Museum, Frankfurt; Dr. Moriz Sassi, of Vienna; and Professor E. Stresemann, of Berlin.

C. E. HELLMAYR

June 25, 1934





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CATALOGUE  
OF  
BIRDS OF THE AMERICAS

BY CHARLES E. HELLMAYR

PART IX

Order PASSERIFORMES—Continued

Suborder OSCINES—Continued

Family TERSINIDAE. Swallow-Tanagers

Genus TERSINA Vieillot<sup>1</sup>

*Tersina* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 33, p. 401, 1819—type, by monotypy, *Tersina caerulea* Vieillot = *Hirundo viridis* Illiger.

*Procnias* (not of Illiger, 1811) Temminck, Man. d'Orn., 2nd ed., 1, p. lxiii, 1820—type, by subs. desig. (Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 880, note b, 1907), *Hirundo viridis* Illiger.

*Chelidorhamphus* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 102, Jan., 1901—type, by monotypy, *Chelidorhamphus orycterus* Bertoni.

\**Tersina viridis viridis* (Illiger). EASTERN SWALLOW-TANAGER.

*Hirundo viridis* Illiger, Prodr. Syst. Mamm. Av., p. 229, 1811—based on "L'Hirondelle verte" Temminck, Cat. Syst. Cab. d'Orn. Quadr., p. 245, 1807; "Sandwich Islands" (p. 136), errore = eastern Brazil (descr. of female).

*Tersina caerulea* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 33, p. 401, 1819—part, Brazil (descr. of male and female).

*Procnias cyanotropus* Wied, Reise Bras., 1, p. 187 (8vo ed., p. 184), 1820—Barra do Jucú, Espirito Santo, Brazil (descr. of male; type now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 218, 1889).

<sup>1</sup> As pointed out by Ridgway (Bull. U. S. Nat. Mus., 50, Part 4, p. 880, note b, 1907), the above appears to be the earliest tenable generic name for the Swallow-Tanager. *Tersa* Vieillot (Anal. Nouv. Ornith. élém., p. 38, 1816), in spite of the fact that the morphological characters have evidently been taken from the present bird, cannot well be adopted, since "La Tersine" of Buffon [= *Ampelis tersa* Linnaeus, 1766], an unidentifiable species of unknown habitat, is given as its genotype.

- Ampelis nigrogularis* Hahn, Vögel aus Asien, etc., Lief. 7, pl.<sup>1</sup> 1, 1820—Brazil (descr. of male; type in Munich Museum examined).
- Procnias ventralis* (Illiger MS.) Temminck, Nouv. Rec. Pl. Col., livr. 1, pl. 5, Aug., 1820—Brazil (type probably in Leiden Museum); Wied, Beitr. Naturg. Bras., 3, (1), p. 385, 1831—Rio Parahyba, Brazil.
- Procnias hirundacea* Swainson, Zool. Illust., 1, No. 4, pl. 21 (male), Jan., 1821—Bahia, "Minas Gerais" (sic), and Rio de Janeiro, Brazil.
- Ampelis fasciata* Thunberg, Dissert. Ampelis cuj. nov. spec., p. 3, 1823—Brazil (descr. of female; type probably in Upsala Museum).
- Chelidorhampus orycterus* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 102, Jan., 1901—banks of Paraná River, Paraguay, and interior of Misiones (type in coll. of A. de W. Bertoni).
- Procnias coerulea*<sup>1</sup> Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 41, 1837—Santa Cruz de la Sierra, Bolivia (spec. in Paris Museum examined); Berlepsch, Ibis, 1881, p. 243 (nomencl.); Ihering, Cat. Faun. Braz., 1, p. 345, 1907—São Paulo (Mogy-guassú, Piquete, São Carlos do Pinhal, Itararé) and Espirito Santo (Rio Doce); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1009, 1122, 1912 (range, excl. of Bolivia); Chrostowski, Compt. Rend. Sci. Scient. Varsovie, 5, pp. 486, 499, 1912—Rio Claro, Paraná; Bertoni, Anal. Soc. Cient. Arg., 75, p. 98, 1913—Misiones; Sneath, Bol. Mus. Goeldi, 8, p. 462, 1914—"Pará (?)."
- Tersina tersa* (not *Ampelis tersa* Linnaeus) d'Orbigny, Voy. Amér. Mérid., Ois., p. 299, 1839—Rio Pyray, near Santa Cruz, Bolivia.
- Procnias tersa* Cabanis, Mus. Hein., 1, p. 30, 1851 (synon.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 191, 1856—Nova Friburgo, Rio, and Lagôa Santa (Minas Geraes); Euler, Journ. Orn., 15, p. 411, 1867—Cantagallo (nesting habits, egg); Pelzeln, Orn. Bras., 2, p. 132, 1868—Rio de Janeiro (Rio de Janeiro, Luiz d'Almeida, Aráras), São Paulo (Ypanema), Goyáz, and Matto Grosso (Cuyabá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 434—Minas Geraes (Lagôa Santa, Sete Lagôas, Paracatú, Carvelho); Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 597—part, Santa Cruz de la Sierra, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 50, 1886—part, subsp. *typica*, spec. a-k, Pernambuco, Bahia, Rio de Janeiro, and São Paulo; Holland, Ibis, 1891, pp. 16, 17; idem, Ibis, 1893, pp. 193, 196—Estancia del Espartillar, near Ranchos, Buenos Aires; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio de Janeiro; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—Porto Alegre, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 143, 1899—São Paulo (São Carlos do Pinhal, Piquete); idem, l.c., 4, p. 152, 1900—Cantagallo and Nova Friburgo.
- Procnias viridis* Allen, Bull. Amer. Mus. N. H., 3, p. 349, 1891—Chapada, Matto Grosso; Chubb, Ibis, 1910, p. 620—Sapucay, Paraguay.
- Tersina caerulea* Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 1, p. 372, 1910—Alto Paraná (Misiones) and Estancia del Espartillar (Buenos Aires); Bertoni, Faun. Parag., p. 62, 1914—Alto Paraná.

<sup>1</sup> Sometimes spelled "*caerulea*."

*Tersina viridis viridis* Hellmayr, Nov. Zool., 32, p. 13, 1925—Santa Cruz, Bolivia (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 191, 1926—Paraná (Candido de Abreu, Salto de Ubá); Naumburg, Bull. Amer. Mus. N. H., 60, p. 366, 1930 (range).

*Tersina caerulea caerulea* Holt, Bull. Amer. Mus. N. H., 57, p. 319, 1928—Monte Serrat, Itatiaia, São Paulo.

*Range*.—Eastern and southern Brazil, from Pernambuco, Bahia, Goyáz, and Matto Grosso (excepting the Amazonian drainage) south to Santa Catharina and Rio Grande do Sul; Paraguay; eastern Bolivia (Santa Cruz de la Sierra); northeastern Argentina (Misiones; accidental at Estancia del Espartillar, Buenos Aires).<sup>1</sup>

17: Bolivia (Buenavista, Santa Cruz, 5); Brazil ("Bahia skin," 1; Chapada, Matto Grosso, 4; Goyáz, Veadeiros, 3; Joinville, Santa Catharina, 2; São Paulo, 1); Paraguay (Rio Tebicuary, 1).

\**Tersina viridis occidentalis* (Sclater).<sup>2</sup> WESTERN SWALLOW-TANAGER.

*Procnias occidentalis* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 249, pub. April, 1855—"Nova Grenada" = Bogotá collections (types in coll. of P. L. Sclater, now in British Museum); idem, l.c., 23, p. 153, 1855—Bogotá; idem, l.c., 26, pp. 74, 452, 1858—Rio Napo and Zamora, Ecuador; idem, l.c., 28, pp. 275, 292, 1860—Babahoyo and Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 55, 1862—part, spec. a-c, New Grenada and Babahoyo; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 566—Rio

<sup>1</sup> Specimens from various parts of Brazil (Bahia, São Paulo, Santa Catharina, and Cuyabá, Matto Grosso) agree in size and coloration, and those from eastern Bolivia (Santa Cruz de la Sierra) appear to be likewise inseparable. Thirty adult males from eastern Brazil measure, on the wing, from 90 to 93, rarely up to 95; two from Santa Cruz, 90 and 91, respectively.

*Additional material examined*.—Brazil: Bahia, 10; Rio de Janeiro, 2; Theophilo Ottoni, Minas Geraes, 1; Ypanema, São Paulo, 17; Iguapé, São Paulo, 2; Jaboticabal, São Paulo, 1; Cascata, São Paulo, 6; Joinville, Santa Catharina, 1; Cuyabá, Matto Grosso, 2.—Bolivia: Santa Cruz, 3.

<sup>2</sup> *Tersina viridis occidentalis* (Sclater): Similar to *T. v. viridis*, but decidedly smaller; plumage of adult males generally of a deeper, less greenish blue. Wing (adult males), 81–87, very rarely 89; tail, 50–57, rarely 58.

Although occasional individuals—regardless of locality—sometimes match typical *viridis* in coloration, the large majority of males from the range assigned to the present form are of a deeper, less greenish blue tone, while the distinctly smaller size serves to distinguish *occidentalis* in nearly every case. Further subdivision appears to be impracticable, and I am unable to separate an Amazonian series from another collected on the Pacific coast of Colombia and Ecuador. Birds from the Yungas of La Paz, northern Bolivia, and Roraima are also referable to this small, deeply colored race.

*Additional material examined*.—Venezuela: inland of Cumaná, 2.—British Guiana: Roraima, 2.—Brazil: Barcellos, Rio Negro, 2 (adult males); Villa Bella de Matto Grosso, Matto Grosso, 2; Santa Isabel, Rio Preto, 10; Maroins, Rio Machados, 2.—Colombia: Noanamá, 1; Nóvita, Rio Tamaná, 5; "Bogotá," 5.—Ecuador: Paramba, Prov. Imbabura, 10; Chimbo, 2; Archidona, 1; Rio Napo, 5.—Peru: Yurimaguas, 1; Chaquimayo, Dept. Puno, 3.—Bolivia, Yungas of La Paz: Songo, 2; San Antonio, 2.



- Ucayali, Peru; idem, l.c., 1867, pp. 749, 977—Xeberos and Pebas, Peru; idem, l.c., 1868, p. 167—Caripé [Sucre], Venezuela; Pelzeln, Orn. Bras., 2, p. 132, 1868—[Villa Bella de] Matto Grosso and Barcellos (Rio Negro), Brazil (spec. examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 597—Cosnipata, Peru; idem, l.c., 1873, p. 260—Nauta, Xeberos, and Pebas, Peru; Taczanowski, l.c., 1874, p. 518—Monterico, Peru; Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Coroico, Bolivia; Oustalet, in Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 246 (in text), 1883—Gulf of Darien, Panama; Taczanowski, Orn. Pér., 2, p. 437, 1884—Peruvian localities.
- Tersina coerulea* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 33, p. 401, 1819—part, Peru; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne.
- Procnias ventralis* (not of Temminck) Tschudi, Untersuch. Faun. Peru., Aves, p. 196, 1846—Peru; Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 671, "1848"—Canuku Mountains, British Guiana.
- Tersa ventralis* Léotaud, Ois. Trinidad, p. 257, 1866—Trinidad (rare visitant).
- Procnias tersa* (not *Ampelis tersa* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 497—Remedios, Colombia; idem, l.c., 1879, p. 597—part, Tilotilo (Yungas), Bolivia; Salvin, Ibis, 1885, p. 207—Roraima; Sclater, Cat. Bds. Brit. Mus., 11, p. 50, 1886—part, subsp. *occidentalis*, spec. a-k, n-r, Roraima, Cayenne, Venezuela (Caripé), Bogotá, Remedios, Babahoyo, Sarayacu, Santa Rita, Peru, and Bolivia; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 14, 1899—Zamora and Intag, Ecuador; Goodfellow, Ibis, 1901, p. 458—Santo Domingo, Guala, and Archidona, Ecuador (crit.).
- Procnias coerulea occidentalis* Berlepsch, Journ. Orn., 32, p. 288, 1884—Bucaramanga, Colombia; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 544—[Chimbo], western Ecuador; idem, l.c., 1885, p. 76—Yaguachi, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1010, 1122, 1912 (range, excl. of Santa Marta).
- Procnias viridis* (not *Hirundo viridis* Illiger) Allen, Bull. Amer. Mus. N. H., 2, pp. 69, 80, 1889—"Quito," Ecuador, and "falls of the Madeira," Bolivia.
- Procnias viride* Williams, Bull. Dept. Agric. Trin. Tobago, 20, p. 129, 1922—Maracas Valley, Trinidad.
- Procnias viridis occidentalis* Berlepsch, Journ. Orn., 37, p. 295, 1889—Yurimaguas, Peru; Hellmayr, Nov. Zool., 17, p. 271, 1910—Santa Isabel (Rio Preto) and Maroins (Rio Machados), Brazil; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 88, 1911—Santo Domingo, Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 82, 1922—Guala, Nanegal, and near Mindo, Ecuador.
- Procnia tersa occidentalis* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 338—San Emilio, Vitoc, Peru; Phelps, Auk, 14, p. 364, 1897—San Antonio, Bermúdez [= Sucre], Venezuela; Berlepsch and Stolzmann, Orn. 13, p. 108, 1906—Huaynapata and Rio Cadena, Peru.
- Procnias coerulea* Berlepsch, Nov. Zool., 15, p. 112, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1009, 1912—part, Songo and San Antonio, Bolivia.

*Tersina viridis occidentalis* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1099—Noanamá and Nóvita, Pacific Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 587, 1917—Juntas de Tamaná, Nóvita, Caldas, San Antonio, Miraflores, Popayán, near Honda, and Villavicencio, Colombia; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 15, 1920—Chaquimayo, Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 648, 1926—Bucay, Punta Santa Ana, Cebollal, Alamor, Zamora, Rio Suno, and below San José, Ecuador; Griscom, Bull. Mus. Comp. Zool., 69, p. 186, 1929—Cana, Darien; Naumburg, Bull. Amer. Mus. N. H., 60, p. 366, 1930—western Matto Grosso; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 435, 1930—Vista Alegre, Peru.

*Tersina occidentalis* Chubb, Bds. Brit. Guiana, 2, p. 487, 1921—Canuku Mountains and Roraima.

*Range*.—Tropical zone (and rarely lower Subtropical zone) of French and British Guiana (Roraima, Canuku Mountains), northern Venezuela, Colombia (except Santa Marta region), eastern Panama (Darien), western and eastern Ecuador, eastern Peru south to the northern foot of the Bolivian Andes (Yungas of La Paz), and northern Brazil (Rio Negro; Rio Preto, Rio Machados, and Rio Guaporé, western Matto Grosso); rare visitant on the island of Trinidad.

13: Venezuela (Maracay, 1; Colón, Táchira, 1); Colombia (Buena-ventura, 2; Carmen de Jacopi, 1; Rio San Juan, Cauca, 2); Ecuador (Puente de Chimbo, 1); Peru (Vista Alegre, 4; Yurimaguas, 1).

### *Tersina viridis grisescens* Griscom.<sup>1</sup> SANTA MARTA SWALLOW-TANAGER.

*Tersina viridis grisescens* Griscom, Bull. Mus. Comp. Zool., 69, p. 186, 1929—La Concepción, Santa Marta, Colombia (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Procnias tersa* (not *Ampelis tersa* Linnaeus) Salvin and Godman, Ibis, 1879, p. 199—Manaure, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 50, 1886—part, subsp. *occidentalis*, spec. l, m, Manaure and Minca.

*Procnias occidentalis* (not of Sclater) Sclater, Cat. Coll. Amer. Bds., p. 55, 1862—part, spec. d, Santa Marta.

*Procnias tersa occidentalis* Bangs, Proc. Biol. Soc. Wash., 12, p. 179, 1898—Palomina, San Miguel, and San Francisco.

*Procnias viridis* (not *Hirundo viridis* Temminck) Allen, Bull. Amer. Mus. N. H., 13, p. 173, 1900—Minca and Valparaiso.

*Procnias caerulea occidentalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1010, 1912—part, Santa Marta.

<sup>1</sup> *Tersina viridis grisescens* Griscom: Very near to, and indistinguishable from, *T. v. occidentalis* in the male sex; but females with the green portions of the plumage duller, more of a grayish green instead of bright parrot green, the difference being especially noticeable on the lower parts. Size the same as in *occidentalis*.

Ten specimens from the Santa Marta region examined.

*Tersina viridis occidentalis* Todd and Carriker, Ann. Carnegie Mus., 14, p. 438, 1922—La Concepción, Chirua, Minca, Cincinnati, San Lorenzo, La Tigra, Mamatoco, Las Vegas, and Pueblo Viejo (habits, nest, and eggs).

*Range*.—Tropical and lower Subtropical zone of the Santa Marta region in northern Colombia.

### Family THRAUPIDAE. Tanagers

#### Genus CHLOROPHONIA Bonaparte

*Chlorophonia* Bonaparte, Rev. Mag. Zool., (2), 3, p. 137, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *T. viridis* Vieillot.

*Chloreuphonia* Sclater, Contrib. Orn., 1851, part 3, p. 94, July, 1851 (emendation).

*Triglyphidia* Cabanis,<sup>1</sup> Journ. Orn., 8, p. 331, 1860—no type specified.<sup>2</sup>

*Acrocompsa* Cabanis, Journ. Orn., 9, pp. 88, 89, 1861—type, by subs. desig. (Sclater, Cat. Bds. Brit. Mus., 11, p. 53, 1886), *T. callophrys* Cabanis.

#### \**Chlorophonia cyanea cyanea* (Thunberg). BLUE-BACKED CHLOROPHONIA.

*Tanagra viridis* (not of P. L. S. Müller, 1776) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 426, 1819—"l'Amérique méridionale" (descr. of female; type in Paris Museum); Temminck, Nouv. Rec. Pl. Col., livr. 6, pl. 36, fig. 3, 1821—Brazil.

*Pipra cyanea* Thunberg,<sup>3</sup> Mém. Acad. Sci. St. Pétersb., 8, p. 284, pl. 8, fig. 1, 1822—Rio de Janeiro (descr. of male and female; types lost, formerly in Upsala Museum; cf. Lönnberg, Ibis, 1903, p. 241).

*Pipra chlorocapilla* Stephens, in Shaw, Gen. Zool., 13, (2), p. 255, Feb., 1826—based on Latham, Gen. Hist. Bds., 7, p. 228, pl. 108 (=adult male), 1823; "South America" (type in coll. of Lord Stanley, now probably in Liverpool Museum).

*Euphonia galotii* Descourtilz, Orn. Brés., livr. 3, p. 29, pl. 33, fig. 1, 1856 (?)—Brazil (location of type not stated).

*Euphonia cyanoblephara* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 96, Jan., 1901—Djaguarasapá, Paraguay (type in coll. of A. de W. Bertoni).

*Chlorophonia viridiceps* Sharpe, Handlist Bds., 5, p. 354, 1909—new name for *Pipra chlorocapilla* Stephens.

<sup>1</sup> *Triglyphidia* Reichenbach (Av. Syst. Nat., pl. 63, March, 1850) may have been intended for the same group, but as no species is indicated and the figures are not wholly conclusive, I hesitate to employ this doubtfully applicable name in place of *Chlorophonia*, over which it would have priority.

<sup>2</sup> Originally proposed to include *C. callophrys*, *C. viridis*, *C. frontalis*, *C. longipennis*, and *C. occipitalis*, this generic term was subsequently restricted by the author (Journ. Orn., 9, p. 89, 1861) to the smaller South American forms, though he did not bother to designate any genotype.

<sup>3</sup> Thunberg's description corresponds minutely to the characters of the Brazilian *Chlorophonia*, if one remembers that the term "uropygium" was used by the early authors for what we now call "crissum."



*Euphonia viridis* Bonaparte, Consp. Gen. Av., 1, (1), p. 233, 1850—Brazil.

*Euphonia viridis* Selater, Contrib. Orn., 1851, p. 88—Brazil.

*Euphone viridis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 197, 1856—Nova Friburgo, Rio.

*Chlorophonia viridis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 137, 1851—part, Brazil; Selater, Proc. Zool. Soc. Lond., 24, p. 269, 1856—part, Brazil (São João d'el Rey, Ypanema); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 117, 1885—near São Sebastião, Rio Grande do Sul; Selater, Cat. Bds. Brit. Mus., 11, p. 54, 1886—Bahia, Rio de Janeiro, and Pelotas (Rio Grande do Sul), Brazil; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—São Sebastião do Cahy, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 143, 1899—São Paulo (Piracicaba, Iguapé); idem, l.c., 4, p. 152, 1900—Cantagallo and Nova Friburgo, Rio.

*Chlorophonia viridis* Pelzeln, Orn. Bras., 3, p. 202, 1870—Rio de Janeiro and Ypanema (São Paulo), Brazil.

*Triglyphidia viridis* Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio.

*Chlorophonia chlorocapilla* Oberholser, Proc. U. S. Nat. Mus., 25, p. 144, 1902—Sapucay, Paraguay; Ihering and Ihering, Cat. Faun. Braz., 1, p. 346, 1907—São Paulo (Piracicaba, Iguapé, Santos) and Rio Grande do Sul (Novo Hamburgo); Chubb, Ibis, 1910, p. 620—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 372, 1910—Alto Paraná; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1010, 1912—Brazil and Paraguay; Bertoni, Anal. Soc. Cient. Arg., 75, p. 98, 1913—Misiones; idem, Faun. Parag., p. 62, 1914—Alto Paraná and central Paraguay; idem, El Hornero, 1, p. 286, 1919—Rio Paraguay (nest descr.); Ménégau, Rev. Franç. d'Orn., 11, p. 7, 1919—Villa Lutetia, Misiones; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 191, 1926—Salto do Cobre, Paraná.

*Range*.—Wooded region of southeastern Brazil, from southern Bahia<sup>1</sup> to Rio Grande do Sul; Paraguay; northeastern Argentina.<sup>2</sup>

6: Brazil (Rio de Janeiro, 1); Argentina (Eldorado, Misiones, 3; Puerto Segundo, Misiones, 2).

\****Chlorophonia cyanea longipennis* (Du Bus).**<sup>3</sup> LONG-WINGED CHLOROPHONIA.

*Euphonia longipennis* Du Bus, Bull. Acad. Roy. Sci., Lettr. et Beaux-Arts Belgique, 22, (1), p. 155, 1855—Antioquia, Colombia (type in Brussels Museum).

<sup>1</sup> Beebe's record (in Zoologica, N. Y., 2, p. 99, 1916) of *C. chlorocapilla* from Utinga, Pará, must be a mistake.

<sup>2</sup> Birds from Paraguay and Misiones agree perfectly with a Brazilian series.

*Additional material examined*.—Brazil: Bahia, 1; Rio de Janeiro, 4; Ypanema, São Paulo, 4; Santos, São Paulo, 1; unspecified, 2.—Paraguay: Sapucay, 4.

<sup>3</sup> *Chlorophonia cyanea longipennis* (Du Bus) is closely allied to *C. c. cyanea*, but even adult males with a large amount of blue on the upper back may be distinguished by the brighter and clearer green of the subbasal portion of the dorsal

*Chlorophonia longipennis* Sclater, Proc. Zool. Soc. Lond., 23, p. 158, 1855—Bogotá (crit.); idem, l.c., 24, p. 270, 1856—Bogotá (diag.); idem, Cat. Coll. Amer. Bds., p. 55, 1862—Bogotá; Sclater and Salvin, Exot. Orn., p. 82, pl. 41, fig. 2, 1868—Bogotá; Sclater, Cat. Bds. Brit. Mus., 11, p. 54, 1886—Colombia (Bogotá) and Ecuador (Sarayacu); Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá"; idem, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1010, 1122, 1912—Colombia, Venezuela (Mérida), Ecuador, Peru, and Bolivia (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 648, 1926—eastern Ecuador.

*Euphonia viridis* (not *Tanagra viridis* Vieillot) Tschudi, Arch. Naturg., 10, (1), p. 284, 1844—Peru.

*Procnias viridis* Tschudi, Unters. Faun. Peru., Aves, p. 197, 1846—Peru.

*Chlorophonia viridis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 137, 1851—part, Ecuador; Sclater, Proc. Zool. Soc. Lond., 24, p. 269, 1856—part, eastern Peru (ex Tschudi); Taczanowski, l.c., 1879, p. 225—Montaña de Palto, Peru; Sclater and Salvin, l.c., 1879, p. 598—Tilotilo, Prov. Yungas, Bolivia.

*Chlorophonia torrejoni* Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 9, pl. 1, fig. 1—Chirimoto, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 180, 1927); idem, Orn. Pér., 2, p. 438, 1884—Montaña de Palto and Huayabamba, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 55, 1886—

feathers, green instead of blue scapulars and edges to the upper wing coverts, and much brighter green external margins to the remiges and rectrices. The female differs by lacking the turquoise blue tinge on the rump and upper tail coverts.

*C. torrejoni*, which Carriker recently sought to revive as a distinct species, is clearly but the first annual plumage of the male sex. One of the original specimens, taken by Stolzmann at Chirimoto on August 16, 1880, is indistinguishable from Colombian individuals in corresponding state. This plumage presents a good deal of individual variation, the rump being either grass green or mixed with turquoise blue to a varying degree, while breast and abdomen show considerable differences in the shade of the yellow color along the median line. It is a well-known fact that various species of *Tanagra* (*Euphonia*) breed in immature plumage, and there is no reason why such should not be also the case with the members of the present group, which is indeed barely separable generically from the true *Euphonias*.

Two adult males from Huaynapata, Peru, and three from Bolivia, moreover, are just as blue-rumped (with more or less blue shading on the back) and as bright-bellied as the most vividly colored examples from "Bogotá." While birds from Venezuela, Colombia, Peru, and Bolivia seem to be perfectly alike in coloration, those from the two latter countries incline to have shorter tails. A male (in first annual plumage) of the ordinary "Bogotá" preparation differs from all others by possessing a fairly distinct, though narrow, yellow frontal band. This specimen, which the late Count Berlepsch doubtfully referred to *C. c. roraimae*, I regard as a mere individual mutant of *longipennis*, and while superficially resembling Guianan examples, it may be distinguished by decidedly narrower blue nuchal collar and grass green rump and upper tail coverts, both of which are turquoise blue in all plumages of *roraimae*. The occurrence of a yellow-fronted bird within the range of *longipennis* furnishes one more bit of evidence for the close genetic relationship of these *Chlorophonias*.

*Additional material examined.*—Venezuela, Mérida: Escorial, 5; Culata, 1; Mérida, 2.—Colombia: "Bogotá," 19.—Peru: Chirimoto, 1; Garita del Sol, 1; Huaynapata, 2.—Bolivia: Chaco (La Paz), 2; San Antonio, 1; Songo, 1; Yungas of La Paz, 1; San Mateo, 1; Quebrada Onda, Cochabamba, 1.

Colombia (Bogotá), Peru (Chirimoto), and Bolivia; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 338—Garita del Sol, Dept. Junín, Peru; Carriker, Proc. Acad. Nat. Sci. Phila., 83, p. 466, 1932—La Oroya, Rio Inambari, Dept. Puno, Peru (crit.).

*Chlorophonia viridis longipennis* Berlepsch and Stolzmann, Ornith., 13, p. 108, 1906—Huaynapata, Peru.

*Chlorophonia cyanea longipennis* Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 265, 1930—Buena Vista, Santa Cruz, Bolivia (crit.).

*Chlorophonia longipennis torrejonii* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1011, 1123, 1912—northwestern Peru (crit.).

*Chlorophonia frontalis roraimae* (not of Salvin and Godman) Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1011, 1123, 1912—part, Bogotá (spec. examined).

*Range.*—Subtropical zone of the Andes from western Venezuela (Mérida) and eastern Colombia south through eastern Ecuador and Peru to Bolivia (Yungas of La Paz, Cochabamba, and Santa Cruz).

5: Venezuela (Sierra Nevada, Mérida, 2; Mérida, 2); Peru (La Merced, Chanchamayo, 1).

### *Chlorophonia cyanea psittacina* Bangs.<sup>1</sup> SANTA MARTA

#### CHLOROPHONIA.

*Chlorophonia frontalis psittacina* Bangs, Proc. New Engl. Zool. Cl., 3, p. 88, 1902—La Concepción, Santa Marta Mountains, Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 397, 1930); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1011, 1912—Santa Marta region; Todd and Carriker, Ann. Carnegie Mus., 14, p. 499, 1922—Onaca, Cincinnati, Las Vegas, Pueblo Viejo, and San Miguel (habits, nest, and eggs); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 175, 1924—Santa Marta region (diag.).

*Chlorophonia frontalis* (not *Euphonia frontalis* Sclater) Salvin and Godman, Ibis, 1879, p. 199—Valley of Chinchicua and San José; Sclater, Cat. Bds. Brit. Mus., 11, p. 55, 1886—part, spec. d, e, Sierra Nevada and Valley of Chinchicua, Santa Marta; Bangs, Proc. Biol. Soc. Wash., 13, p. 104, 1899—Chirua, La Concepción, and San Miguel; Allen, Bull. Amer. Mus. N. H., 13, p. 170, 1900—Onaca, Las Nubes, Valparaiso, and El Libano.

<sup>1</sup>*Chlorophonia cyanea psittacina* Bangs: Similar to *C. c. frontalis*, but distinguished in the male sex by much less sharply defined as well as more greenish blue nuchal band (which is much duller and more greenish than the turquoise blue rump) and by lacking the narrow light green frontal margin. Besides, the yellow band across the forehead is wider, and, as a rule, of a deeper tone, while the crown is more yellowish green. The female differs, in addition to the last-named character, by having a distinct, though narrow, yellow frontal band, pale turquoise blue (instead of grass green) rump and upper tail coverts, and more obsolete, at the same time paler greenish blue nuchal collar. Wing, 61–63, (female) 61–64; tail, 32–36; bill, 8–9.

*Material examined.*—Colombia, Santa Marta region: Tagua, 1; Onaca, 3; Las Nubes, 1; Valparaiso, 3.

*Range*.—Subtropical (and upper Tropical) zone of the Santa Marta region in northern Colombia.

\***Chlorophonia cyanea frontalis** (Sclater). YELLOW-FRONTED CHLOROPHONIA.

*Euphonia frontalis* Sclater, Contrib. Orn., 1851, Part 3, July, p. 89—"Ecuador," errore, = Caracas, Venezuela (type in coll. of P. L. Slater, now in British Museum, examined).

*Chlorophonia frontalis* Sclater, Proc. Zool. Soc. Lond., 24, p. 270, 1856—Caracas (diag.); idem, Cat. Coll. Amer. Bds., p. 55, 1862—Venezuela; Slater and Salvin, Exot. Orn., p. 81, pl. 41, fig. 1 (= male), 1868—Caracas; Slater, Cat. Bds. Brit. Mus., 11, p. 55, 1886—part, spec. a-c, Venezuela; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1011, 1123, 1912—part, Caracas and "Puerto Cabello."

*Chlorophonia frontalis frontalis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 54, 1912—Cumbre de Valencia and Las Quiguas, Carabobo (crit., range in part); Hellmayr, l.c., 90, A, Heft 2, p. 174, 1924—Galipán (Cerro del Avila) and Loma Redonda, Venezuela (crit.).

*Range*.—Subtropical zone of northern Venezuela, in Dept. Federal (Loma Redonda; Caracas; Galipán, Cerro del Avila) and in states of Aragua (Maracay) and Carabobo (Las Quiguas; La Cumbre de Valencia).<sup>1</sup>

3: Venezuela (Loma Redonda, Dept. Federal, 1; Maracay, Aragua, 1; unspecified, 1).

**Chlorophonia cyanea minuscula** Hellmayr.<sup>2</sup> LESSER YELLOW-FRONTED CHLOROPHONIA.

*Chlorophonia frontalis minuscula* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 6, p. 46, June, 1922—mountains near Cumaná, Venezuela (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 175, 1924—northeastern Venezuela (crit.); Chapman, Amer. Mus. Nov., 191, p. 12, 1925—Neverf and Cuchivano, Sucre.

*Chlorophonia frontalis* (not *Euphonia frontalis* Sclater) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1011, 1123, 1912—part, Campos Alegre Valley, Venezuela (crit.).

<sup>1</sup> The type of *C. frontalis* agrees with specimens from the Caracas region in coloration and dimensions (wing, 67; tail, 41). Birds from Carabobo, by darker forehead, form the passage to *C. c. psittacina*.

*Additional material examined*.—Venezuela, Dept. Federal: Caracas, 1; Loma Redonda, 3; Galipán, Cerro del Avila, 15; Las Quiguas, Carabobo, 3; La Cumbre de Valencia, Carabobo, 6; "Puerto Cabello," 1; unspecified, 1 (the type).

<sup>2</sup> *Chlorophonia cyanea minuscula* Hellmayr: Nearest to *C. c. frontalis*, but smaller; yellow forehead paler and duller, less strongly defined; under parts dingier yellow with an olivaceous tinge; female with very little, if any, yellowish suffusion on the forehead. Wing, 59–63 (against 64–67 in *frontalis*), (female) 58–59 (against 60–63); tail, 35–37, (female) 33; bill, 8–9.

By the less pronounced yellowish frontlet this form approaches *C. c. roraimae*. *Material examined*.—Venezuela, Sucre: Campos Alegre Valley, 8.



*Range*.—Subtropical zone of northeastern Venezuela, in State of Sucre (Neverí, Cuchivano, Campos Alegre, etc.).

**Chlorophonia cyanea roraimae** Salvin and Godman.<sup>1</sup> RORAIMA  
CHLOROPHONIA.

*Chlorophonia roraimae* Salvin and Godman, *Ibis*, (5), 2, p. 444, 1884—Roraima, British Guiana (type in Salvin-Godman Collection, now in British Museum, examined); Salvin, *Ibis*, 1885, p. 208—Roraima; Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 56, pl. 6, fig. 1 (male), 1886—Roraima; Chubb, *Bull. Brit. Orn. Cl.*, 31, p. 39, 1913—east bank of Essequibo River; idem, *Bds. Brit. Guiana*, 2, p. 489, 1921—Roraima, Quonga, and Bonasia River.

*Chlorophonia frontalis roraimae* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1011, 1123, 1912—part, Roraima (crit.); Hellmayr, *Arch. Naturg.*, 90, A, Heft 2, p. 175, 1924—Roraima (crit.).

*Chlorophonia cyanea roraimae* Chapman, *Bull. Amer. Mus. N. H.*, 63, p. 124, 1931—Mounts Roraima (Philipp Camp) and Duida (Caño Seco, Agüita, First Peak, Cumbre No. 6), Venezuela.

*Range*.—Subtropical (rarely Tropical) zone of British Guiana and southern Venezuela (Mount Duida).

**Chlorophonia flavirostris** Sclater.<sup>2</sup> YELLOW-BILLED  
CHLOROPHONIA.

*Chlorophonia flavirostris* Sclater, *Proc. Zool. Soc. Lond.*, 1861, p. 129—Ecuador, probably from the eastern slope of the Andes (type in coll. of P. L. Sclater, now in British Museum, examined); idem, *Cat. Coll. Amer. Bds.*, p. 55,

<sup>1</sup> *Chlorophonia cyanea roraimae* Salvin and Godman: Adult male agreeing with *C. c. minuscula* in restricted yellow frontlet, but blue nuchal collar much wider, and dorsal feathers tipped with blue, giving the back a uniform blue effect; female with much wider blue collar and bright blue (instead of grass green) rump and upper tail coverts; size larger, about the same as in *C. c. frontalis*. Wing, 64–68, (female) 60–66; tail, 39–41, (female) 34–39; bill, 7½–8½.

The male of this form passes through a stage similar to *C. c. longipennis*, and the first annual plumage (bright blue collar across the hind neck; edges to upper wing coverts and remiges olive green; under parts greenish yellow) resembles the so-called "*C. torrejonii*," from which it merely differs by blue rump and upper tail coverts, a racial character of *C. c. roraimae*.

Two adult males from Quonga agree in every respect with others from Roraima. *Material examined*.—British Guiana: Roraima, 10; Quonga, 2.

<sup>2</sup> *Chlorophonia flavirostris* Sclater is known from the unique type in the British Museum. It is a very peculiar bird immediately recognizable among its affines by the yellow bill and feet, and the yellow rim round the eye. As it has no blue whatever in the plumage, the type is probably a female. The whole upper surface, including wing coverts and inner secondaries, is bright grass green; the other remiges are dusky, exteriorly margined with bluish green; sides of head, throat, foreneck, and sides of body bright grass green like the back; an extensive zone along the middle of the belly and under tail coverts bright yellow, this area abruptly contrasted with the green of the foreneck and sides; a narrow rim around the eye and a small chin-spot bright yellow; tail dusky, median pair and outer web of the other remiges green like the back; axillaries pale yellowish. Wing, 60; tail, 30; bill, 7.

1862—Ecuador; idem, Cat. Bds. Brit. Mus., 11, p. 56, pl. 6, fig. 1, 1886—Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1011, 1912—Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 649, 1926—Ecuador.

*Range.*—Supposedly Ecuador (eastern side of the Andes).

**\*Chlorophonia pyrrhophrys (Sclater). CHESTNUT-BELLIED CHLOROPHONIA.**

*Tanagra (Euphonia) pretrei* (not *Tanagra pretrei* Lesson, 1839) Lafresnaye, Rev. Zool., 6, p. 97, 1843—Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 398, 1930); idem, Mag. Zool., (2), 5, pl. 42 (male), 1843—Colombia.

*Euphonia pyrrhophrys* Slater, Contrib. Orn., 1851, p. 89, pl. 75, fig. 2 (=female) —“Columbia?”=Bogotá (type in coll. of P. L. Slater, now in British Museum).

*Euphonia pretrei* Bonaparte, Consp. Gen. Av., 1, (1), p. 233, 1850—Colombia.

*Euphonia pretrei* Slater, Contrib. Orn., 1851, p. 89—Colombia (descr. of male).

*Chlorophonia pretrei (ei)* Bonaparte, Rev. Mag. Zool., (2), 3, p. 158, 1851—Colombia; Slater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—Bogotá; idem, l.c., 24, p. 270, 1856—Bogotá (diag.); idem, Cat. Coll. Amer. Bds., p. 55, 1862—Bogotá; Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida, Venezuela; idem, l.c., 1879, p. 498—Santa Elena, Antioquia, Colombia; Slater, Cat. Bds. Brit. Mus., 11, p. 56, 1886—Colombia (Bogotá, “vicinity of Medellín”) and Venezuela (Mérida); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1011, 1912—Colombia and Mérida; Chapman, Bull. Amer. Mus. N. H., 36, p. 587, 1917—Cerro Munchique, Santa Isabel, and Santa Elena, Colombia.

*Chlorophonia pyrrhophrys* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 34, 1919 (nomencl.); Chapman, Bull. Amer. Mus. N. H., 55, p. 649, 1926—Baeza, eastern Ecuador.

*Range.*—Subtropical zone of western Venezuela (Cordillera of Mérida), Colombia (except Santa Marta region), and eastern Ecuador (Baeza).<sup>1</sup>

1: Venezuela (Mérida, 1).

**\*Chlorophonia occipitalis occipitalis (Du Bus). MEXICAN CHLOROPHONIA.**

*Euphonia occipitalis* Du Bus, Esq. Orn., livr. 3, pl. 14, 1847—Mexico (descr. of female; type in coll. of B. Du Bus, now in Brussels Museum); Slater, Contrib. Orn., 1851, p. 90 (crit.); Jardine, Ibis, 1860, p. 103—Guatemala.

<sup>1</sup> No Ecuadorian material is available for examination. Birds from Mérida, Venezuela, are identical with Colombian skins.

*Additional specimens examined.*—Venezuela, Mérida: Montaña de Culata, 4. —Colombia: Bogotá, 6; Santa Elena, 2.

*Chlorophonia occipitalis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 158, 1851—southern Mexico (crit.); Cassin, in Gilliss, U. S. Nav. Astron. Exp., 2, p. 182, pl. 20, fig. 2 (male), 1855—Mexico; Selater, Proc. Zool. Soc. Lond., 24, p. 270, 1856—southern Mexico (diag.); idem, l.c., 25, p. 205, 1857—Jalapa, Vera Cruz; idem, l.c., 27, p. 364, 1859—vicinity of Jalapa; Selater and Salvin, Ibis, 1859, p. 17—Guatemala; Selater, Cat. Coll. Amer. Bds., p. 55, 1862—Mexico (Jalapa, Orizaba) and Guatemala (Coban); Selater, Proc. Zool. Soc. Lond., 1864, p. 173—"vicinity of City of Mexico"; Selater and Salvin, Exot. Orn., p. 83, pl. 42 (male, female), 1868—southern Mexico and Guatemala; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 550, 1869—Dept. Vera Cruz; Lawrence, Bull. U. S. Nat. Mus., 4, p. 18, 1876—Gineta Mountains, Chiapas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 253, 1883—southern Mexico and Guatemala (Coban, Choctum); Selater, Cat. Bds. Brit. Mus., 11, p. 57, 1886—Mexico (Jalapa and "near City of Mexico") and Guatemala (Coban, Choctum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 6, 1902 (monog., full bibliog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 155, 1903—Ceiba, Honduras (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1012, 1123, 1912 (range, crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 372, 1932—Guatemala (Finca Sepacuite, Volcan Zunil, San Lucas).

(?) *Euphonia cyaneidorsalis* Dubois, Rev. Mag. Zool., (2), 11, p. 49, pl. 2, 1859—Guatemala (type in coll. of C. F. Dubois, present location unknown; cf. Berlepsch, Ibis, 1881, p. 179).<sup>1</sup>

(?) *Chlorophonia cyanodorsalis* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 255, 1883—Guatemala (ex Dubois).

*Range*.—Subtropical zone of southeastern Mexico, in states of Vera Cruz (Jalapa, Orizaba) and Chiapas (Gineta Mountains), Guatemala, Honduras (Ceiba), and northern Nicaragua.<sup>2</sup>

5: Mexico (Monte Verde, 1); Guatemala (unspecified, 1); Honduras (San Pedro Sula, 2); Nicaragua (San Rafael del Norte, 1).

**\**Chlorophonia occipitalis callophrys* (Cabanis).<sup>3</sup> COSTA RICAN CHLOROPHONIA.**

<sup>1</sup> This "species," of which the type has disappeared, is probably an individual variation. Dubois's plate represents a bird much like *C. o. occipitalis*, but with the back mainly blue. No specimen corresponding to this character has been found again.

<sup>2</sup> With only a single Mexican female (from Orizaba) available for comparison I cannot be certain that Guatemalan birds are really the same. While Bangs notes some differences in specimens from Honduras, Griscom expressly states that Nicaraguan examples are not separable from those of Guatemala.

Nine additional specimens from Guatemala (Coban) and one from Orizaba, Mexico, examined.

<sup>3</sup> *Chlorophonia occipitalis callophrys* (Cabanis), though readily distinguished by its bright chrome yellow forehead and superciliaries, much larger and deeper (campanula) blue coronal patch, and other characters, is certainly but a strongly marked southern race of the Mexican *Chlorophonia*.

Veraguan birds seem to agree with others from Costa Rica and Chiriquf.

- Triglyphidia callophrys* Cabanis, Journ. Orn., 8, p. 331, 1860—Costa Rica (type in Berlin Museum; descr. of male).
- Acrocompsa callophrys* Cabanis, Journ. Orn., 9, p. 88, 1861—Costa Rica (descr. of immature).
- Chlorophonia calophrys* Sclater and Salvin, Exot. Orn., p. 135, pl. 68 (male and female), 1868—Costa Rica and Veragua (Calovévora).
- Chlorophonia callophrys* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Rancho Redondo, San José, and Birris, Costa Rica; Salvadori, Atti Accad. Sci. Torino, 4, p. 173, 1868—Costa Rica (crit.); Frantzius, Journ. Orn., 17, p. 297, 1869—Costa Rica (Rancho Redondo, Cervántes, Candelaria); Salvin, Proc. Zool. Soc. Lond., 1870, p. 185—Veragua (Calovévora, Cordillera del Chucú) and Volcan de Chiriquí; Boucard, l.c., 1878, p. 54—Navárrro and Candelaria, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 254, 1883—Costa Rica and Panama (Volcan de Chiriquí, Chitrá, Cordillera del Chucú, Calovévora, Calobre); Sclater, Cat. Bds. Brit. Mus., 11, p. 58, 1886—Costa Rica (Irazú) and Panama (Calovévora and Volcan de Chiriquí); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (San José, Cartago, Alajuéla, Rancho Redondo de San José, Naránjo de Cartago); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 3, 1899—Chiriquí; Bangs, Proc. New Engl. Zool. Cl., 3, p. 64, 1902—Boquete and Volcan de Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 7, 1902—Costa Rica, Chiriquí, and Veragua; Carriker, Ann. Carnegie Mus., 6, p. 873, 1910—Costa Rica (habits); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 277, 1910—Costa Rica (Guayábo, Coliblanco, Volcan de Turrialba); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1012, 1912—Costa Rica to Veragua; Bangs and Griscom, Proc. New Engl. Zool. Cl., 13, p. 52, 1932—San Pedro, Costa Rica (color variety).

*Range*.—Subtropical zone of Costa Rica and western Panama (Chiriquí and Veragua).

12: Costa Rica (Coliblanco, 2; Guayábo, 1; La Estrella de Cartago, 1; Peralta, 2; Volcan Irazú, 4; Volcan Turrialba, 1; unspecified, 1).

#### Genus TANAGRA Linnaeus

- Tanagra* Linnaeus, Mus. Adolph. Frid., 2, Prodr., p. 30, 1764—type, by subs. desig. (Richmond, Proc. U. S. Nat. Mus., 35, p. 644 [note], 1908), *Fringilla violacea* Linnaeus.
- Euphonia* Desmarest, Hist. Nat. Tangaras, livr. 10, table [pl. 27], 1806—type, by monotypy, *Euphonia olivacea* Desmarest.
- Euphonia* Lichtenstein, Zweites Preis-Verz. Doubl. Berliner Mus., 1820 (cf. Oken's Isis, 1821, Beylage No. 1, p. 6)—type, as here designated, *Fringilla violacea* Linnaeus.
- Euphonia* Cabanis, Arch. Naturg., 13, (1), p. 317, 1847—emendation of *Euphonia* Desmarest.
- Cyanophonia* Bonaparte, Rev. Mag. Zool., (2), 3, p. 133, 1851—type, by subs. desig. (Sclater, Cat. Bds. Brit. Mus., 11, p. 58, 1886), *Pipra musica* Gmelin.



*Phonasca* Cabanis, Journ. Orn., 8, p. 330, 1860—type, by subs. desig. (Cabanis, Journ. Orn., 9, p. 90, 1861), *Fringilla violacea* Linnaeus.

*Acroleptes*<sup>1</sup> (Schiff MS.) Cabanis, Journ. Orn., 9, p. 90, 1861—type, by subs. desig. (Slater, Cat. Bds. Brit. Mus., 11, p. 58, 1886), *Tanagra chlorotica* Linnaeus.

*Acroleptus* Cabanis, Journ. Orn., 9, p. 90 [footnote], 1861—substitute for *Acroleptes* Cabanis.

*Hypophaea*<sup>1</sup> Cabanis, Journ. Orn., 9, p. 91, 1861—type, by orig. desig., *Tanagra chalybea* Mikán.

*Iliolopha*<sup>1</sup> Cabanis, Journ. Orn., 22, p. 83, 1874—type, by monotypy, "*Iliolopha pectoralis* (Lath.)" = *Pipra pectoralis* Latham.

\**Tanagra musica musica* (Gmelin). HISPANIOLAN EUPHONIA.

*Pipra musica* Gmelin, Syst. Nat., 1, (2), p. 1004, before April 20, 1789<sup>2</sup>—based on "L'Organiste" Buffon and Daubenton, Pl. Enl., pl. 809, fig. 1; Santo Domingo.

*Euphonia caeruleocephala* Swainson, Nat. Hist. Classif. Bds., 2, p. 286, 1837—based on Daubenton, Pl. Enl., pl. 809, fig. 1.

*Euphone musica* Lembeye, Aves Isl. Cuba, p. 42, 1850—"Cuba," errore (cf. Gundlach, Journ. Orn., 9, p. 409, 1861).

*Tanagra musica* Bryant, Proc. Bost. Soc. N. H., 11, p. 92, 1866—Port au Prince and Jérémie, Hispaniola; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 515, 1928—Haiti and Gonave; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 325, 1929—San Juan de la Maguana, Monte Viejo, and Rio Manade, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 422, 1931—Hispaniola (monog.).

*Euphonia musica* Slater, Contrib. Orn., 1851, p. 82—Santo Domingo and "Cayenne?"; idem, Proc. Zool. Soc. Lond., 24, p. 271, 1856—Santo Domingo and "Cuba" (ex Lembeye) (monog.); Sallé, l.c., 25, p. 231, 1857—Santo Domingo; Cory, Bull. Nutt. Orn. Cl., 6, p. 152, 1881—Pétionville, Haiti (descr. of young); Tristram, Ibis, 1884, p. 168—Santo Domingo; Cory, Bds. Haiti San Dom., p. 61, col. pl., 1884—Santo Domingo (La Vega, Samaná, Magua) and Haiti (Le Coup); Slater, Cat. Bds. Brit. Mus., 11, p. 59, 1886—Santo Domingo (Samaná); Cory, Bds. W. Ind., p. 79, 1889—Haiti and Santo Domingo; idem, Cat. W. Ind. Bds., pp. 113, 131, 1892—same localities; Cherrie, Field Columb. Mus., Orn., 1, p. 13, 1896—Honduras and Maniel, Santo Domingo; Christy, Ibis, 1897, p. 324—La Vega; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 13, 1902—Haiti (monog.); Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 363, 1909—Sánchez, Santo Domingo (habits); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1012, 1912—Haiti.

*Range*.—Island of Hispaniola (including Gonave Island), Greater Antilles.

<sup>1</sup> *Acroleptes*, *Hypophaea*, and *Iliolopha*, as published by Bonaparte (Ann. Sci. Nat., (4), Zool., 1, p. 127, 1854) are nomina nuda without nomenclatorial standing.

<sup>2</sup> Cf. Hopkinson, Proc. Zool. Soc. Lond., 1907, pp. 1035–37.

32: Haiti (Le Coup, 1); Santo Domingo (Honduras, 7; La Vega, 10; Magua, 2; Maniel, 1; Samaná, 11).

\**Tanagra musica sclateri* (Sundevall).<sup>1</sup> PORTO RICAN EUPHONIA.

*Euphonia sclateri* (Bonaparte MS.) Sundevall, Vetensk.-Akad. Förhandl., 26, p. 596, 1869—based on *Euphonia flavifrons* (not *Emberiza flavifrons* Sparrman) Sclater, Proc. Zool. Soc. Lond., 24, p. 271, 1856 (type, from Porto Rico, collected by Maugé, in Paris Museum); Gundlach, Journ. Orn., 22, p. 311, 1874—Porto Rico; idem, l.c., 26, p. 169, 1878—Porto Rico (habits, nest); idem, Anal. Soc. Esp. Hist. Nat., 7, p. 191, 1878—Porto Rico (Mayagüez, Aguadilla); Cory, Auk, 3, p. 194, 1886—Porto Rico (descr.); Sclater, Cat. Bds. Brit. Mus., 11, p. 60, 1886—Porto Rico; Cory, Bds. W. Ind., p. 81, 1889—Porto Rico; idem, Cat. W. Ind. Bds., pp. 16, 113, 132, 1892—Porto Rico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 15, 1902—Porto Rico (monog.); Bowditch, Auk, 20, p. 14, 1903—Ponce and Mayagüez, Porto Rico; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1012, 1912—Porto Rico.

*Pipra musica* (not of Gmelin) Desmarest, Hist. Nat. Tang., livr. 1, pl. 19 (male), 20 (female), 1805—part, Porto Rico.

*Cyanophonia musica* Bonaparte, Rev. Mag. Zool., (2), 3, p. 138, 1851 (descr.).

*Euphonia flavifrons* (not *Emberiza flavifrons* Sparrman) Sclater, Proc. Zool. Soc. Lond., 24, p. 271, 1856—Porto Rico, "Trinidad, and Cayenne," errore (descr. from Maugé's Porto Rico specimens in the Paris Museum).

*Tanagra sclateri* Wetmore, Bull. U. S. Dept. Agric., 326, p. 123, 1916—Porto Rico (habits); idem, Auk, 33, p. 419, 1916—Vieques (attempt at introduction); Struthers, Auk, 40, p. 478, 1923—Mayagüez, Porto Rico; Wetmore, N. Y. Acad. Sci., Sci. Surv. Porto Rico and Virgin Is., 9, p. 549, 1927—Porto Rico (monog.).

Range.—Island of Porto Rico, Greater Antilles.

3: Porto Rico.

\**Tanagra musica flavifrons* (Sparrman). GREEN EUPHONIA.

*Emberiza flavifrons* Sparrman, Mus. Carlss., fasc. 4, pl. 92, 1789<sup>2</sup>—no locality indicated; St. Bartholomew suggested by Sundevall (type in Stockholm Museum; cf. Sundevall, Vetensk.-Akad. Förhandl., 26, p. 583, 1869).<sup>3</sup>

*Euphonia flavifrons* Sundevall, Vetensk.-Akad. Förhandl., 26, p. 583, 1869—St. Bartholomew; Sclater, Proc. Zool. Soc. Lond., 1876, p. 13—Santa Lucia; Lawrence, Proc. U. S. Nat. Mus., 1, pp. 56, 190, 269, 1878—Dominica, St. Vincent, and Grenada; idem, l.c., 1, pp. 354, 455, 1879—Martinique and Guadeloupe; idem, l.c., 3, p. 256, 1880—Dominica

<sup>1</sup> *Tanagra musica sclateri* (Sundevall), in the female sex, closely resembles *T. m. flavifrons*, from which it mainly differs by smaller bill and lighter, more yellowish under parts. The male, by the reduction of the black on the head, likewise marks a step in the direction of the green-backed races.

<sup>2</sup> Exact date unknown, possibly earlier than Gmelin's Syst. Nat., 1, Part 2.

<sup>3</sup> Not listed, however, in Gyldenstolpe's "Types of Birds in the Royal Natural History Museum in Stockholm" (Ark. Zool., 19, A, No. 1, pp. 1-116, 1926).

(Roseau Valley); Allen, Bull. Nutt. Orn. Cl., 5, p. 166, 1880—Santa Lucia; Wells, Proc. U. S. Nat. Mus., 9, p. 613, 1886—Grenada (habits); Selater, Cat. Bds. Brit. Mus., 11, p. 63, 1886—Martinique, Santa Lucia, and Guadeloupe; Cory, Ibis, 1886, p. 475—Grande Terre; idem, Auk, 3, p. 193, 1886—St. Bartholomew, Martinique, Guadeloupe, St. Vincent, Grenada, and Santa Lucia; idem, Auk, 4, p. 95, 1887—Martinique; Selater, Proc. Zool. Soc. Lond., 1889, p. 395—Santa Lucia; Cory, Bds. W. Ind., p. 80, 1889—St. Bartholomew to Grenada; idem, Cat. W. Ind. Bds., p. 113, 1892—same range; Verrill, Trans. Conn. Acad. Sci., 8, p. 339, 1892—Dominica (habits, nest, and eggs); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 15, 1902—St. Bartholomew to Grenada (monog.); Nicoll, Ibis, 1904, p. 574—Antigua; Riley, Smiths. Misc. Coll., 47, p. 291, 1904—Barbuda and Antigua; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1013, 1912—St. Bartholomew to Santa Lucia.

*Euphonia flavifrons viscivora* Clark, Proc. Biol. Soc. Wash., 18, p. 19, 1905—Kingstown, St. Vincent (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 398, 1930); idem, Proc. Bost. Soc. Nat. Hist., 32, pp. 288, 303, 306, 1905—St. Vincent and Grenada; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1013, 1124, 1912—St. Vincent and Grenada (crit.).

*Euphonia flavifrons flavifrons* Noble, Bull. Mus. Comp. Zool., 60, p. 387, 1916—Matouba, Guadeloupe (crit.).

*Tanagra flavifrons*. Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 543, 1928—Santa Lucia.

*Range*.—Islands of St. Bartholomew, Barbuda, Antigua, Guadeloupe, Dominica, Martinique, Santa Lucia, St. Vincent, and Grenada, Lesser Antilles.<sup>1</sup>

21: Dominica, 1; Martinique, 4; St. Lucia, 6; St. Vincent, 8; "West Indies," 2.

\**Tanagra musica intermedia* (Chubb).<sup>2</sup> BLACK-THROATED  
EUPHONIA.

<sup>1</sup> Subdivision of the Green Euphonia into two races, as has been proposed by Clark, seems unwarranted, the supposed characters of *viscivora* being individual rather than geographic.

<sup>2</sup> *Tanagra musica intermedia* (Chubb): Similar to *T. m. aureata* in coloration, but slightly smaller. Wing, 61–65, (female) 61–64; tail, 36–39.

This form is hardly worth maintaining, since various individuals from northern Venezuela are very nearly as large as southern examples. In the male sex, the Black-throated Euphonia comes very near to *T. m. musica*, and differs chiefly by somewhat paler rump and under parts, less purplish back, and black instead of orange forehead. The female is brighter both above and below, with the sides of the head greenish instead of blackish.

*Additional material examined*.—Trinidad, 1 (type of *P. cyanocephala*).—Venezuela: San Antonio (inland of Cumaná), 6; Caracas, 1; Galipán, Cerro del Avila, 10; Mérida, 5.—Colombia: "Bogotá," 8; Medellín, 1.—British Guiana: Roraima, 1.—Brazil: Monte Alegre, 1 (young male).

*Pipra cyanocephala* (not *Tanagra cyanocephala* P. L. S. Müller, 1776) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 19, p. 165, 1818—Trinidad (type in Paris Museum examined;<sup>1</sup>=female).

*Euphonia nigricollis intermedia* Chubb, Ibis, (9), 4, p. 624, 1910—"Guiana"=Roraima, British Guiana (type in British Museum).

*Euphonia nigricollis* (not *Tanagra nigricollis* Vieillot) Scater, Contrib. Orn. 1851, p. 83, pl. 75, fig. 1—part, "Bogotá" and Trinidad; idem, Proc. Zool. Soc. Lond., 23, p. 159, 1855—"Bogotá"; idem, l.c., 24, p. 272, 1856—part, Trinidad, Venezuela (Caracas), and New Grenada ("Bogotá"); idem, Cat. Coll. Amer. Bds., p. 56, 1862—part, spec. a, d-e, "Bogotá" and "Trinidad"; Taylor, Ibis, 1864, p. 81—Trinidad; Scater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caripé and Caracas, Venezuela; Finsch, l.c., 1870, p. 579—"Trinidad"; Scater and Salvin, l.c., 1870, p. 780—south of Mérida, Venezuela; Scater and Salvin, l.c., 1879, p. 498—Medellin, Colombia; Salvin, Ibis, 1885, p. 208—Roraima; Scater, Cat. Bds. Brit. Mus., 11, p. 61, 1886—part, spec. a-f, m-p, Colombia (Medellin, "Bogotá"), Venezuela (Caripé), Trinidad, and Roraima; Chapman, Bull. Amer. Mus. N. H., 6, p. 29, 1894—Trinidad (ex Léotaud and Taylor); Penard, Voy. Guyana, 2, p. 418, 1910—Surinam; Piguët, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Medellin, Colombia.

*Euphonia aureata* (not *Tanagra aureata* Vieillot) Léotaud, Ois. Trinidad, p. 310—Trinidad.

*Euphonia cyanocephala* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1013, 1124, 1912—part, Colombia, Venezuela (Mérida), Trinidad, and British Guiana (Roraima); Sneath, Bol. Mus. Goeldi, 8, p. 438, 1914—Monte Alegre, north bank of Amazon, Brazil.

*Euphonia cyanocephala cyanocephala* Hellmayr, Nov. Zool., 30, p. 232, 1923 (range).

*Tanagra cyanocephala* Chubb, Bds. Brit. Guiana, 2, p. 493, 1921—Roraima.

*Tanagra cyanocephala cyanocephala* Chapman, Bull. Amer. Mus. N. H., 36, p. 588, 1917—part, Caldas, Antioquia, and Buena Vista, Colombia.

*Tanagra aureata intermedia* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 35, 1919 (range, diag.); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 172, 1924—Galipán, Cerro del Avila, Venezuela (crit.).

*Range*.—British Guiana (Roraima); Surinam; northern Brazil (one record from Monte Alegre, lower Amazon); Trinidad; mountains of Venezuela, Sucre west to Mérida; Colombia (except extreme south).

3: Venezuela (Escorial, Mérida, 2); Colombia (Amalfi, Antioquia, 1).

\**Tanagra musica aureata* Vieillot. SOUTHERN BLACK-THROATED EUPHONIA.

*Tanagra nigricollis* (not of Gmelin, 1789) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 412, 1819—"Brésil," coll. Delalande, Jr.=Rio de Janeiro (type in Paris Museum).

<sup>1</sup> Vieillot omits to mention the orange forehead, which the type shows, however, just as well-marked as in Venezuelan females with which it was compared.



*Tanagra aureata* Vieillot, Tabl. Enc. Méth., Orn., livr. 91, p. 732, 1822—based on "Lindo azul y oro" Azara, No. 99, Paraguay; Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay.

*Tanagra chrysogaster* Cuvier, Règne Anim., nouv. éd., 1, p. 366, 1829—based on Azara, No. 99, Paraguay.

*Euphonia musica* (not *Pipra musica* Gmelin) Wied, Beitr. Naturg. Bras., 3, (1), p. 443, 1830—Fazenda de Pitanga, near Cabo Frio, Rio de Janeiro.

*Euphonia nigricollis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, p. 30, 1837—Corrientes, Argentina; Sclater, Contrib. Orn., 1851, p. 83—part, Brazil (Cabo Frio, Rio de Janeiro), Corrientes (Rincon de Luna), Paraguay, and Ecuador; idem, Proc. Zool. Soc. Lond., 24, p. 272, 1856—part, Brazil (Rio), Paraguay, and Corrientes; idem, Cat. Coll. Amer. Bds., p. 56, 1862—part, spec. b, c, Ecuador and Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 433—Minas Geraes (Rio da Prata, near Paracatú; Lapa Vermelha, near Lagõa Santa); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 260—Rio Ucayali, Peru; Taczanowski, l.c., 1874, p. 518—Paltaypampa, Peru; idem, l.c., 1879, p. 225—Tambillo, Peru; idem, l.c., 1880, p. 194—Callacate, Peru; idem, l.c., 1882, p. 10—Huambo, Peru; idem, Orn. Pér., 2, p. 439, 1884—Peru (Ucayali, Paltaypampa, Tambillo, Callacate, Huambo, Chachapoyas); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 117, 1885—Arroio Grande, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 61, 1886—part, spec. l, q-v, Peru (Tambillo) and Brazil (Bahia, Ypanema); Sclater and Hudson, Arg. Orn., 1, p. 37, 1888—Corrientes; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 338—Garita del Sol and Chontabamba, Dept. Junín, Peru; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 144, 1899—São Paulo (Piracicaba, Iguapé); idem, l.c., 4, p. 152, 1900—Cantagallo, Rio; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 4, 1900—Urucúm, Matto Grosso; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 175, 1902—Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 346, 1907—São Paulo (Piracicaba, Iguapé) and Rio Grande do Sul (Novo Hamburgo); Hartert and Venturi, Nov. Zool., 16, p. 170, 1909—Tucumán; Chubb, Ibis, 1910, p. 623—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 373, 1910—Tucumán and Corrientes; Bertoni, Faun. Parag., p. 62, 1914—Puerto Bertoni, Paraguay; idem, El Hornero, 1, p. 286, 1919—Puerto Bertoni.

*Euphonia nigricollis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 193, 1856—southern Brazil and Paraguay.

*Euphonia nigricollis* Pelzeln, Orn. Bras., 3, p. 202, 1870—Ypanema, São Paulo; Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro.

*Cyanophonia aureata* Bonaparte, Rev. Mag. Zool., (2), 3, p. 138, 1851—Paraguay, Bolivia, and Ecuador (diag.).

*Euphonia aureata* d'Orbigny, Voy. Amér. Mérid., Ois., p. 267, 1839—Rincon de Luna, Corrientes.

*Euphonia cyanocephala* (not *Pipra cyanocephala* Vieillot) Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1013, 1124, 1912—part, Brazil ("Pará" to Rio Grande do Sul), Paraguay, Peru, and Bolivia (Quebrada Onda, Chaco, Omeja), and Argentina (Corrientes).

*Euphonia cyanocephala aureata* Hellmayr, Nov. Zool., 30, pp. 231, 232, 1923—Corrientes (range).

*Tanagra aureata aureata* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 35, 1919 (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 367, 1930—Matto Grosso.

*Range*.—Southeastern Brazil, from Bahia to Rio Grande do Sul; Uruguay; Paraguay; northern Argentina (Tucumán; Misiones; Rincon de Luna, Corrientes); southwestern Matto Grosso (Urucúm, near Corumbá); eastern Bolivia; eastern Peru; eastern Ecuador ("Ambato").<sup>1</sup>

6: Brazil (Baurú, São Paulo, 1); Argentina (Iguazú, Misiones, 4); Peru (Hacienda Limón, ten miles west of Balsas, 1).

**Tanagra musica pelzelni** (Sclater).<sup>2</sup> PELZELN'S BLACK-THROATED EUPHONIA.

[*Euphonia nigricollis*] subsp. *pelzelni* (Berlepsch MS.) Sclater, Cat. Bds. Brit. Mus., 11, p. 61 (in text), 1881—spec. g-k, Ecuador (type from Govinda, Ecuador, in British Museum).

*Euphonia nigricollis* (not *Tanagra nigricollis* Vieillot) Jardine, Edinb. New Phil. Journ., (n.s.), 2, p. 118, 1855—valley of Chillo, below Quito; Sclater, Proc. Zool. Soc. Lond., 26, p. 551, 1858—Matos, northeast of Riobamba, Ecuador; idem, l.c., 28, pp. 65, 87, 1860—Pallatanga, Perucho, and Puellaro, Ecuador; Berlepsch and Taczanowski, l.c., 1884, p. 288—Cayandeled, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 14, 1899—Tumbaco and Chillo Valley, Ecuador; Goodfellow, Ibis, 1901, p. 459—Guápalo (near Quito) and west side of Pichincha, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 89, 1911—Tumbaco and Quito, Ecuador.

*Tanagra cyanocephala cyanocephala* (not *Pipra cyanocephala* Vieillot) Chapman, Bull. Amer. Mus. N. H., 36, p. 588, 1917—part, La Sierra, western Andes, Colombia.

*Euphonia cyanocephala pelzelni* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1013, 1912—western Ecuador (Govinda, Intag, Quito, Pichincha, Cayandeled, Matos, Pallatanga, Pesillo, Perucho, Puellaro).

<sup>1</sup> The few Bolivian specimens examined appear to be indistinguishable from a Brazilian series, and two males from Tucumán do not differ either. Two from "Ambato(?)," Ecuador, and one from Peru (Hacienda Limón) have the black forehead distinctly wider, while the rump and under parts are not quite so intense, though very much darker and more orange than in *T. m. pelzelni*. Additional material may possibly show the inhabitants of these countries to be separable.

*Additional specimens examined*.—Brazil: Bahia, 2; Ypanema, São Paulo, 10.—Paraguay: Sapucay, 1.—Bolivia: Quebrada Onda, 1; Chaco, 1; Omeja, 1; Yungas of La Paz, 1.—Argentina: Tucumán, 2.

<sup>2</sup> *Tanagra musica pelzelni* (Sclater): Similar to *T. m. aureata*, but on average larger, and adult males with rump and lower parts decidedly paler, lemon chrome to light cadmium instead of deep cadmium yellow. Wing, 66–70; tail, 42–45.

Nineteen specimens from western Ecuador, mostly from the Quito region (Cumbaya, Tumbaco, Pichincha), examined.

*Tanagra aureata pelzelni* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 35, 1919—western Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 649, 1926—Cumbaya, Yaguarcocha, Quito, Tumbaco, and Mocha, Ecuador (crit.).

*Euphonia cyanocephala pelzelni* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 82, 1922—Tumbaco and Cumbaya, Ecuador; Hellmayr, Nov. Zool., 30, p. 232, 1923 (range).

*Range.*—Temperate (rarely Subtropical) zone of extreme southern Colombia (La Sierra, headwaters of the Rio Patia) and western Ecuador south to Chimborazo.

***Tanagra musica insignis* (Sclater and Salvin).<sup>1</sup> ORANGE-FRONTED EUPHONIA.**

*Euphonia insignis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1877, p. 521, pl. 52, fig. 1 (male)—“Jina”=Jima, Ecuador (type in Salvin-Godman Collection, now in British Museum, examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 60, 1886—Jima; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1013, 1912—Jima.

*Tanagra insignis* Chapman, Bull. Amer. Mus. N. H., 55, p. 649, 1926—Jima.

*Range.*—Temperate zone of southern Ecuador (Loja; Jima).

**\**Tanagra musica elegantissima* (Bonaparte). BLUE-HOODED EUPHONIA.**

*Pipra elegantissima* Bonaparte, Proc. Zool. Soc. Lond., 5, “1837,” p. 112, pub. June 14, 1838—Mexico (type in coll. of Messrs. Paris, present location unknown).

*Euphonia coelestis* Lesson, Rev. Zool., 2, p. 42, 1839—Mexico (types in coll. of Dr. Abeillé, Bordeaux; descr. of male and female).

*Pipra galericulata* Giraud, Descr. Sixt. New Spec. N. Amer. Bds., fol. [21], pl. [5], fig. 2, 1841—“Texas,” errore (type in U. S. National Museum); cf. Sclater, Proc. Zool. Soc. Lond., 23, p. 66, 1855 (crit.).

*Euphonia elegantissima* Du Bus, Esq. Orn., livr. 2, pl. 8 (male, female), 1846—San Pedro, near Oaxaca, Mexico; Sclater, Proc. Zool. Soc. Lond., 24, p. 272, 1856—Mexico (Oaxaca, Jalapa, Córdoba), Guatemala, and “Texas” (monog.); Salvin, l.c., 1870, p. 185—Calovévora, Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 256, 1883—Mexico to Veraguas;

<sup>1</sup>*Tanagra musica insignis* (Sclater and Salvin): Similar to *T. m. aureata* in size and general coloration, notably in deep cadmium yellow rump and under parts, but forehead in adult male deep cadmium yellow to mars yellow bordered posteriorly by a narrow blackish line. The female is not certainly separable, and except for its less shining green back, it also resembles that of *T. m. sclateri*, of Porto Rico, thus showing the close affinities of all the blue-capped euphonias. Wing, (four males) 66–67, (two females) 65–66; tail, 38–41, (female) 37, 40; bill, 7.

The typical examples of this form are said to be from “Jima” in the Temperate zone of Azuay Province. They agree with a series collected in June, 1899, by P. O. Simons at Loja, in the Vienna Museum. This form obviously represents the pale-bellied, black-fronted *T. m. pelzelni* in southern Ecuador.

*Material examined.*—Ecuador: “Jima,” 2; Loja, 6.

Sclater, Cat. Bds. Brit. Mus., 11, p. 62, 1886—southern Mexico to Veraguas; Bangs, Proc. New Engl. Zool. Cl., 3, p. 65, 1902—Boquete, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 12, 1902—Vera Cruz to Veraguas (monog., full bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 366, 1905—Juan Lisiarraga Mountains, Sinaloa; Carriker, Ann. Carnegie Mus., 6, p. 872, 1910—Costa Rica (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1012, 1123, 1912—Mexico to Veraguas (crit.).

*Tanagra elegantissima* Austin, Bull. Mus. Comp. Zool., 69, p. 390, 1929—Mountain Cow, British Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 372, 1932—Finca Concepción, Finca El Soche, Volcan San Lucas, Tecpam, and Quezaltenango, Guatemala (crit.); idem, Bull. Mus. Comp. Zool., 75, p. 409, 1934—Chilpancingo, Guerrero.

*Euphonia elegantissima vincens* Hartert, Bull. Brit. Orn. Cl., 33, p. 77, Dec., 1913—San José, Costa Rica (type in Tring Collection, now in the American Museum of Natural History, New York).

*Range*.—Southern Mexico (from southern Sinaloa, Guanajuato, and Vera Cruz southwards), Guatemala, British Honduras, Costa Rica, and western Panama (Chiriquí and Veraguas).<sup>1</sup>

5; Guatemala (Tecpam, 1); Costa Rica (La Estrella, 1; Limón, 1; San José, 1; unspecified, 1).

\**Tanagra xanthogaster xanthogaster* (Sundevall). ORANGE-BELLIED EUPHONIA.

*Euphonia xanthogaster* Sundevall, Vetensk. Akad. Handl. for 1833, p. 310, pl. 10, fig. 1 (=adult male), 1834—Brazil (type in Stockholm Museum; cf. Gyldenstolpe, Ark. Zool., 19, A, No. 1, p. 14, 1926).

*Euphonia xanthogastra* Strickland, Contrib. Orn., 1851, p. 73—part, Brazil; Slater, l.c., 1851, p. 85—part, Brazil; idem, Proc. Zool. Soc. Lond., 24, p. 275, 1856—part, southern Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 195, 1856—"upper Amazon and Rio Negro," errore (ex Sundevall); Slater, Cat. Coll. Amer. Bds., p. 57, 1862—part, spec. d, g, Brazil; idem, Cat. Bds. Brit. Mus., 11, p. 67, 1886—part, spec. a-c, Nova Friburgo, Brazil; Ihering, Rev. Mus. Paul., 3, p. 144, 1899—"São Paulo"; idem, l.c., 4, p. 152, 1900—Nova Friburgo; idem, Cat. Faun. Braz., 1, p. 347, 1907—Rio Juruá, Brazil (range in part).

*Euphonia ochrascens* Pelzeln, Orn. Bras., 3, pp. 202, 328, 1870—Registo do Sai, Rio de Janeiro (types in Vienna Museum examined).

<sup>1</sup> Though there appears to be a gap in the distribution of this form, I am inclined to agree with Griscom in suppressing the name *vincens* proposed by Hartert for the birds of Costa Rica and southwards. The latter average rather darker, more purplish blue on the crown, but the variation is insignificant. The other points of distinction claimed by the describer are altogether unreliable, as has been shown by Griscom. Birds from Sinaloa are stated by Miller to be paler below.

*Additional material examined*.—Mexico (Vera Cruz), 8; Guatemala, 5; Costa Rica, 9; Chiriquí, 6.



*Euphonia chlorotica* (not *Tanagra chlorotica* Linnaeus) Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá, Brazil (spec. examined).

*Euphonia aurea aurea* (not "*Parus aureus*" Vroeg) Hellmayr, Nov. Zool., 17, p. 271, 1910—Maroins, Rio Machados, Brazil (spec. reexamined).

*Euphonia xanthogaster* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1016, 1126, 1912—eastern Brazil, from Bahia to Rio de Janeiro and (?) São Paulo; Snethlage, Bol. Mus. Goeldi, 8, p. 439, 1914—Rio Jamauchim (Conceição, Tucunaré); Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia.

*Euphonia xanthogaster xanthogaster* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 17, 1920—eastern Brazil (Bahia to Rio de Janeiro).

*Tanagra xanthogaster xanthogaster* Naumburg, Bull. Amer. Mus. N. H., 60, p. 369, 1930—Rio Roosevelt, Broken Canoe Rapids, Matto Grosso.

*Range*.—Brazil, from Bahia to Rio de Janeiro and (?) São Paulo,<sup>1</sup> west through Amazonia (Rio Jamauchim, tributary of the Tapajóz; Maroins, Rio Machados) to the Rio Juruá and northern Matto Grosso (Rio Roosevelt).<sup>2</sup>

2: Brazil (Rio de Janeiro, 2).

### *Tanagra xanthogaster exsul* (Berlepsch).<sup>3</sup> VENEZUELAN RUFOUS-CAPPED EUPHONIA.

<sup>1</sup> Whether *T. x. xanthogaster* really ranges as far south as São Paulo remains to be confirmed, though Cabanis (Journ. Orn., 13, p. 409 [in text], 1865) claims to have seen examples from that state.

<sup>2</sup> With the limited Brazilian material at my command I am not in a position to speak with confidence about the range of this form. Birds from Rio de Janeiro, regarded by Berlepsch (1912, p. 1016) as type locality, and others from Bahia agree. Two adult males from Amazonia, while nearly similar in coloration, are somewhat smaller, the tail is particularly shorter, and the yellow of the crown slightly paler. In these notoriously variable birds nothing can be gained from the study of a few specimens and, until an adequate series becomes available, the inhabitants of Amazonia may provisionally be referred to typical *xanthogaster*. The wing of adult males from eastern Brazil varies from 60 to 64, the tail from 34 to 36. One from Maroins, Rio Machados, measures: wing, 55½; tail, 30; one from the Rio Juruá: wing, 59; tail, 31½.

*Additional material examined*.—Brazil: Bahia, 2; Rio Doce, Espirito Santo, 2; Registo do Sai, Rio de Janeiro, 2; Rio de Janeiro, 1; Maroins, Rio Machados, 1; Rio Juruá, 1.

<sup>3</sup> *Tanagra xanthogaster exsul* (Berlepsch): Exceedingly close to the widely separated *T. x. ruficeps*, of Bolivia, but distinguishable in the male sex by paler rufous as well as more extensive crown patch, with the bluish black spotting in the posterior portion of this area less conspicuous. Wing, 64–68, (female) 60–62; tail, 34–38, (female) 32–34; bill, 8–9.

This form is easily recognizable by the much darker color of the forecrown and under parts, when compared to *T. x. brevirostris*, but is sometimes hard to tell from the Bolivian *ruficeps*. Females are not distinguishable at all. Its range appears to be limited to the coast mountains of Venezuela from Caracas westwards. In the Tring Museum is a specimen collected by A. Mocquerys at "Caripé," but this locality requires confirmation by more substantial evidence.

*Material examined*.—Venezuela: Loma Redonda (alt. 3,000 ft.), Caracas region, 2; "Caracas," 1; San Esteban, 4; Las Quiguas, Carabobo, 6; La Cumbre de Valencia, 1; mountains near Bucarito, Tocuyo, Lara, 2.

*Euphonia ruficeps exsul* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1017, 1127, 1912—San Esteban, near Puerto Cabello [Carabobo], Venezuela (type in Berlepsch Collection, now in Frankfort Museum, examined).

*Euphonia ruficeps* (not of Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 24, p. 276, 1856—part, Caracas, Venezuela (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 68, 1886—part, spec. f-i, San Esteban, Venezuela.

*Euphonia xanthogastra* (not of Sundevall) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—Venezuela.

*Euphonia xanthogaster exsul* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 53, 1912—San Esteban, Las Quiguas, and Cumbre de Valencia, Carabobo (crit.).

*Tanagra xanthogaster exsul* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 173, 1924—Loma Redonda, Caracas, Venezuela (crit.).

*Range*.—North coast mountains of Venezuela, from the Caracas region west to Lara (near Bucarito, Tocuyo).

\**Tanagra xanthogaster brevisrostris* (Bonaparte).<sup>1</sup> SHORT-BILLED EUPHONIA.

*Euphonia brevisrostris* Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—"Columbia"—Bogotá collections (type in coll. of M. Parzudaki, present location unknown).

*Acroleptes brevisrostris* Cabanis, Journ. Orn., 13, p. 408, 1865—"Bogotá" and Llanos de Casanares, Colombia (crit.).

*Euphonia xanthogastra* (not *Euphone xanthogaster* Sundevall) Sclater, Contrib. Orn., 1851, p. 85—part, Anolaima, Colombia; idem, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quijos, Ecuador; idem, l.c., 23, p. 159, 1855—"Bogotá"; idem, l.c., 24, p. 275, 1856—part, Ecuador (Quixos) and "Bogotá" (descr.); idem, l.c., 26, p. 74, 1858—Rio Napo, Ecuador; idem, l.c., p. 452, 1858—Gualaquiza, Ecuador; idem, Cat. Coll. Amer. Bds., p. 57, 1862—part, spec. a-c, Rio Napo, Anolaima, and "Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 179—Sarayacu, Rio Ucayali, Peru; idem, l.c., 1873, p. 260—Sarayacu; Taczanowski, l.c., 1874, p. 518—

<sup>1</sup>*Tanagra xanthogaster brevisrostris* (Bonaparte): Similar to *T. x. xanthogaster*, but larger, and the yellow cap in the males darker, more ochraceous or orange. Birds from British Guiana are inseparable from "Bogotá" skins, as far as I can judge from the small number of accessible specimens. The inhabitants of eastern Ecuador and northern Peru have been much discussed and, whereas certain authors (Nelson and Zimmer) identified them with *T. x. quitensis*, Chapman (Bull. Amer. Mus. N. H., 64, p. 126, 1931), in agreement with my own view, is inclined to refer them to *brevisrostris*. While admitting that they are not quite identical with specimens from eastern Colombia, the males having the forehead of the crown on average slightly paler, yet their bills are distinctly smaller than in birds from western Ecuador. The coloration of the females (more buffy breast and bright yellowish green sides), insisted upon by Chapman, holds in most cases, though it must be stated that two (one each from Moyobamba and Huachipa) cannot be distinguished from western examples (*quitensis*).

*Additional material examined*.—Colombia: "Bogotá," 21; Cuembí, Rio Putumayo, 6.—Eastern Ecuador: San José, 4; El Loreto, 4; Sarayacu, 1.—Peru: Huambo, 1; Piña, 1; Nuevo Loreto, 1.—British Guiana: Atapurow River, 1; Camacusa, 4.

Monterico and Amable Maria, Peru; idem, l.c., 1882, p. 10—Huambo, Peru; idem, Orn. Pèr., 2, p. 444, 1884—part, Peru (Monterico, Amable Maria, Sarayacu, Iquitos, Huambo, Chirimoto); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 77—Machay, Ecuador; Salvin, Ibis, 1885, p. 208—Merumé Mountains, Camacusa, and Atapurow River, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 67, 1886—part, spec. d-l, n-s, w, x, British Guiana (Atapurow River, Merumé Mountains, Camacusa), Colombia ("Bogotá"), Ecuador (Napo, Sarayacu), and Peru (Iquitos); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—part, Rio Napo; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 338—La Merced and Garita del Sol, Dept. Junín, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 14, 1899—part, Rio Zamora, eastern Ecuador.

*Tanagra xanthogaster* Chubb, Bds. Brit. Guiana, 2, p. 494, 1921—Merumé Mountains, Camacusa, and Caramang River.

*Euphonia xanthogaster brevirostris* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1101 (in text)—"Bogotá" (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1016, 1126, 1912—part, Colombia ("Bogotá"), eastern Ecuador, Peru (excl. of Santa Ana), and British Guiana; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 17, 1920—eastern Andes of Colombia to Peru.

*Tanagra xanthogastra brevirostris* Chapman, Bull. Amer. Mus. N. H., 36, p. 589, 1917—Colombia (La Palma and La Candela, east slope of central Andes; Andalucía, Caquetá Trail, La Morelia, Florencia, Quetame, and Buenavista, eastern Andes); idem, l.c., 63, p. 126, 1931—Agüita, Mount Duida, Venezuela (crit.).

*Tanagra xanthogaster quitensis* (not of Nelson) Bangs and Noble, Auk, 35, p. 459, 1918—west of Perico, Peru.

*Tanagra xanthogastra quitensis* Chapman, Bull. Amer. Mus. N. H., 55, p. 650, 1926—part, eastern Ecuador (Zamora, Sabanilla, Macas, Rio Suno, below San José, lower Sumaco, below Oyacachi) and Peru (Pomará, Chaupe, Chelpes, Utcuyacu); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 436, 1930—Vista Alegre and Huachipa, Dept. Huánuco, Peru (crit.).

*Range*.—Tropical and Subtropical zones of eastern Colombia (eastern Andes and east slope of central Andes), eastern Ecuador, and eastern Peru, south to Junín; also southern Venezuela (Mount Duida) and British Guiana.

17: British Guiana (Caramang River, 4); Colombia ("Bogotá," 4; Andalucía, Huila, 1); Peru (Rioja, 1; Moyobamba, 3; Huachipa, 2; Vista Alegre, 2).

\**Tanagra xanthogaster quitensis* (Nelson).<sup>1</sup> NELSON'S EUPHONIA.

<sup>1</sup> *Tanagra xanthogaster quitensis* (Nelson): Very similar to *T. x. brevirostris*, but with larger bill; males with yellow of crown and under parts generally paler; female with foreneck and chest mostly grayish, the buffy abdominal area paler and less extensive, and the sides and flanks darker green, less yellowish.

If maintained at all, this form should be restricted to western Ecuador.

*Additional material examined*.—Western Ecuador: Rio Verde, Prov. Esmeraldas, 1; Paramba, Prov. Imbabura, 3; Lita, Prov. Imbabura, 2; Pallatanga, 1; Gualea, 8; Nanegal, 1; Porvenir, Bolivar, 2; Chimbo, 1.

*Tanagra xanthogastra quitensis* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 16, Sept., 1912—"Quito," Ecuador<sup>1</sup> (type in U. S. National Museum); Chapman, Bull. Amer. Mus. N. H., 55, p. 650, 1926—part, western Ecuador (Rio de Oro, Gualea, Bucay, Naranjo, Chimbo, Coco and Chimbo, La Chonta, El Chiral, Zaruma, Punta Santa Ana, Salvias, La Piñas, San Bartolo, Alamor, and Cebollal).

*Euphonia xanthogastra* (not of Sundevall) Sclater, Proc. Zool. Soc. Lond., 27, p. 140, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 87, 1860—Nanegal, Ecuador; idem, Cat. Coll. Amer. Bds., p. 57, 1862—part, spec. e, f, Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 544—Chimbo; idem, l.c., 1884, p. 288—Cayandede and Pedregal; Sclater, Cat. Bds. Brit. Mus., 11, p. 67, 1886—part, spec. t-v, "Quito" and Pallatanga; Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—part, Gualea; Hartert, Nov. Zool., 5, p. 481, 1898—Cachaví and Chimbo; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 14, 1899—part, Gualea and Intag; Goodfellow, Ibis, 1901, p. 459—Santo Domingo and Gualea; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 90, 1911—part, Gualea and Santo Domingo.

*Euphonia xanthogaster brevisrostris* (not of Bonaparte) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1016, 1126, 1912—part, western Ecuador (Chimbo, Cayandede, Pedregal, Pallatanga).

*Euphonia xanthogaster quitensis* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 17, 1920—western Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 82, 1922—Gualea and Nanegal.

*Range*.—Tropical and Subtropical zones of western Ecuador.  
5: Ecuador (Puente de Chimbo, 5).

\**Tanagra xanthogaster chochoensis* (Hellmayr).<sup>2</sup> CHOCÓ  
EUPHONIA.

*Euphonia xanthogaster chochoensis* Hellmayr, Rev. Franç. d'Orn., 2, p. 23, 1911—Rio Cajón, Chocó, western Colombia (type in Munich Museum); idem, Proc. Zool. Soc. Lond., 1911, p. 1100—Noanamá, Rio Cajón, and Sipi, Pacific Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1017, 1126, 1912—western Colombia (Chocó and San Pablo; crit.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 17, 1920 (range).

<sup>1</sup> No representative of this group being found on the plateau of Quito, Chapman (Bull. Amer. Mus. N. H., 63, p. 127 [in text], 1931) suggests Gualea as type locality of *T. x. quitensis*.

<sup>2</sup> *Tanagra xanthogaster chochoensis* (Hellmayr): Nearest to *T. x. brevisrostris*, but adult male with cap and under parts decidedly paler, light cadmium; breast and middle of the belly not tinged with ochraceous; female underneath even more grayish with a lesser amount of buffy on the abdominal line than that of *T. x. quitensis*.

Birds from the Pacific lowlands are remarkable for their small dimensions (wing, 57–61), while those from higher altitudes in the western and central Andes are decidedly larger (wing, 63–66). Two adult males from San Pablo, Prov. Tuqueses, in extreme southern Colombia, approach *T. x. quitensis* by having a faint ochraceous tinge on the abdomen and a darker yellow forecrown.

*Additional material examined*.—Colombia: Noanamá, 1; Rio Cajón, 2; Sipi, 2; Barbacoas, 4; San Pablo, Prov. Tuqueses, 2; San Antonio, 3; Miraflores, 2.



*Euphonia xanthogastra* (not of Sundevall) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 498—Concordia, western Andes, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 67, 1886—part, spec. m, Antioquia.

*Tanagra xanthogastra chocoensis* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 17, 1912—western Colombia and eastern Panama; Chapman, Bull. Amer. Mus. N. H., 36, p. 588, 1917—Colombia (Alto Bonito, Juntas de Tamaná, Nóvita, San José, Barbacoas, La Frijolera, Nóvita Trail, Las Lomitas, San Antonio, Cerro Munchique, Gallera, Cocal, Ricaurte, Miraflores, and Salento; crit.).

*Range*.—Tropical and Subtropical zones of Colombia, from the Pacific coast to the western slope of the central Andes, and north to eastern Panama.

1: Colombia (El Roble, west of Salento, Quindío Andes, 1).

***Tanagra xanthogaster brunneifrons* (Chapman).<sup>1</sup> BROWN-FRONTED EUPHONIA.**

*Euphonia xanthogastra (er) brunneifrons* Chapman, Bull. Amer. Mus. N. H., 14, p. 226, 1901—Inca Mine [=Santo Domingo], Marcapata, Peru (type in the American Museum of Natural History, New York); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1017, 1127, 1912—Marcapata, Peru (crit.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 15, 1920—Yahuarmayo, San Gaban, Chaquimayo, and Chirimayo, Carabaya, Peru (crit.).

*Euphonia xanthogastra* (not of Sundevall) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata, Dept. Cuzco, Peru; Sclater, l.c., 1873, p. 780—Cosnipata; Taczanowski, Orn. Pér., 2, p. 444, 1884—part, Cosnipata, Peru; Berlepsch and Stolzmann, Orn. 13, pp. 78, 108, 1906—Idma (Urubamba), Huaynapata, Rio Cadena, and Escopal (Marcapata), Peru.

*Euphonia xanthogaster brevirostris* (not of Bonaparte) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1016, 1912—part, "Santa Ana" [=Idma], Urubamba, Peru.

*Range*.—Tropical and Subtropical zones of southeastern Peru, in depts. of Cuzco (Urubamba) and Puno (Carabaya).

***Tanagra xanthogaster ruficeps* (Lafresnaye and d'Orbigny). BOLIVIAN RUFIOUS-CAPPED EUPHONIA.**

*Euphonia ruficeps* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 30, 1834—Yuracares, Bolivia (types in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 268, pl. 22, fig. 2, 1839—Yura-

<sup>1</sup> *Tanagra xanthogaster brunneifrons* (Chapman): Similar to *T. x. brevirostris*, but adult males with forecrown darker in color, deep ochraceous-orange, and chest as well as abdominal line more strongly tinged with ochraceous. Although single specimens are not always distinguishable, the majority from southeastern Peru may be separated by the above characters, which mark a decided step in the direction of *T. x. ruficeps*, with rufous cap and still more rufescent under parts.

*Material examined*.—Peru: Cosnipata, 1; Yahuarmayo, 6; San Gaban, 5; Chaquimayo, 4; Chirimayo, 1; Marcapata, 6.

cares; Sclater, Contrib. Orn., 1851, p. 85—Yuracares (ex d'Orbigny); idem, Proc. Zool. Soc. Lond., 24, p. 276, 1856—part, Bolivia (crit.); idem, Cat. Coll. Amer. Bds., p. 58, 1862—Yuracares, Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 598—Bolivia (Yuracares; Tilotilo, Yungas); Sclater, Cat. Bds. Brit. Mus., 11, p. 68, 1886—part, spec. a-e, Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1017, 1912—Bolivia (Yuracares, Chaco, San Mateo, Songo, San Antonio, Tilotilo).

*Euphone ruficeps* Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—Bolivia (diag.).

*Euphonia xanthogaster ruficeps* Hellmayr, Nov. Zool., 30, p. 235, 1923—Yuracares, Bolivia (note on types).

*Range*.—Tropical and Subtropical zones of Bolivia (depts. of La Paz and Cochabamba).<sup>1</sup>

\**Tanagra annae*<sup>2</sup> *annae* (Cassin). COSTA RICAN TAWNY-CAPPED EUPHONIA.

*Euphonia annae* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 172—Santa Rosa, Costa Rica (descr. of male; type in U. S. National Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Angostura and Santa Rosa, Costa Rica; Frantzius, Journ. Orn., 17, p. 297, 1869—"San José," Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 17, 1902—part, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 871, 1910—Guayábo, Bonilla, La Vijagua, Carrillo, Cariblanco de Sarapiquí, Turrialba, La Hondura, and Las Mesas, Caribbean Costa Rica (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1017, 1912—part, Costa Rica.

*Euphonia annae* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 265, 1883—part, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 72, 1886—part, spec. g-j, Costa Rica (Angostura, Turrialba); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Naránjo de Cartago and Rio Sucio, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 65, 1902—Boquete and Caribbean slope of Volcan de Chiriquí, Panama.

*Range*.—Caribbean side of Costa Rica and extreme western Panama (Boquete and Volcan de Chiriquí).<sup>3</sup>

6: Costa Rica (Tuís, 2; Peralta, 2; Santa Cruz de Turrialba, 1); Panama (unspecified, 4 1).

<sup>1</sup> *Material examined*.—Bolivia: Yuracares, 2; Songo, Dept. La Paz, 4; Chaco, Dept. La Paz, 3; San Antonio, Dept. La Paz, 1; San Mateo, Dept. Cochabamba, 3; unspecified, 3.

<sup>2</sup> *Tanagra annae* is allied to *T. xanthogaster*, but differs, aside from its larger bill, by its tawny cap, which is also farther extended posteriorly, and white under tail coverts, while the female is more tawny on the forehead and less buffy in the abdominal region. According to Griscom, representatives of both species live side by side in eastern Panama, a fact that would seem to exclude conspecific affinity.

<sup>3</sup> Five specimens from Boquete, Chiriquí, appear to me inseparable from a Costa Rican series.

<sup>4</sup> Obviously a "Chiriquí" trade-skin.

**Tanagra annae rufivertex** (Salvin).<sup>1</sup> VERAGUAN TAWNY-CAPPED  
EUPHONIA.

*Euphonia rufivertex* Salvin, Proc. Zool. Soc. Lond., 1866, p. 71, pl. 7 (male, female)—Veraguas<sup>2</sup> (types from "Santiago de Veraguas" in British Museum).

*Euphonia annae* (not of Cassin) Salvin, Proc. Zool. Soc. Lond., 1867, p. 137—Santa Fé, Veraguas (crit.); idem, l.c., 1870, p. 186—Cordillera del Chucú and Calovévora, Veraguas; idem, Ibis, 1874, p. 329—Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 265, 1883—part, Veraguas (Santa Fé, Calobre, "Santiago," Calovévora, Cordillera del Chucú); Sclater, Cat. Bds. Brit. Mus., 11, p. 72, 1886—part, spec. a-f, Veraguas ("Santiago," Santa Fé, Calovévora).

*Euphonia annae* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 17, 1902—part, Veragua; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1017, 1912—part, Veragua.

*Tanagra annae ruficeps* Griscom, Amer. Mus. Nov., 280, p. 17, 1927—Rio Calovévora, Veraguas (crit.).

*Range*.—Tropical zone of Panama, from the Veraguas east to Mount Tacarcuna, Darien.

\***Tanagra fulvicrissa fulvicrissa** (Sclater). FULVOUS-VENTED  
EUPHONIA.

*Euphonia fulvicrissa* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 276, pub. Jan., 1857—"Santa Martha in New Grenada" (descr. of male; type in coll. of P. L. Sclater, now in British Museum); (?)Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 143—Falls of the Truando, Colombia; Sclater, Cat. Coll. Amer. Bds., p. 58, 1862—"Santa Martha"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 349—Panama Railroad (descr. of female); Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—Angostura and Pacuaré, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 264, pl. 16, fig. 2 (=male), 1883—part, Panama (Bugaba, Volcan de Chiriquí, Lion Hill, San Pablo Station); Sclater, Cat. Bds. Brit. Mus., 11, p. 73, 1886—part, spec. a, f-k, "Santa Marta," Panama (Lion Hill, San Pablo, Volcan de Chiriquí, Bugaba, Veragua), (?) and Rio Truando; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 18, 1904—part, "Santa Marta" and Panama to Chiriquí; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1018, 1912—part, "Santa Marta" and Panama to Costa Rica.

<sup>1</sup> *Tanagra annae rufivertex* (Salvin): Very close to *T. a. annae*, but on average slightly smaller; under parts of males medially, particularly on the chest, more strongly tinged with orange; female with deeper gray under parts and less yellowish flanks.

The distinctive features are not strongly pronounced in the three available specimens from Veraguas, and some of the males from Costa Rica are very nearly as orange on the chest. A single example from the base of Mount Tacarcuna, Darien, is stated by Griscom to be decidedly larger (wing, 70) than those from Veragua.

<sup>2</sup> The immature male from Turrialba, incidentally mentioned by Salvin, pertains, of course, to *T. a. annae*.

*Tanagra fulvicrissa fulvicrissa* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 226, 1922—Mount Sapó, Darien; Todd and Carriker, Ann. Carnegie Mus., 14, p. 497, 1922 (not in Santa Marta); Griscom, Bull. Mus. Comp. Zool., 69, p. 187, 1929—Cana, Darien; idem, l.c., 72, p. 369, 1932—Permé, Obaldia, and Ranchon, eastern Panama.

*Euphonia gouldii* (not of Sclater) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332, 1861—Panama Railroad; Salvin, Proc. Zool. Soc. Lond., 1870, p. 186—Bugaba and Volcan de Chiriquí, Panama.

*Range.*—Tropical zone of eastern Costa Rica and Panama, south to Darien and possibly extreme northwestern Colombia (Rio Truando).<sup>1</sup>

1: Panama (unspecified, 1).

### *Tanagra fulvicrissa omissa* (Hartert).<sup>2</sup> COLOMBIAN FULVOUS-VENTED EUPHONIA.

*Euphonia fulvicrissa omissa* Hartert, Bull. Brit. Orn. Cl., 33, p. 77, Dec., 1913—"Bogotá," Colombia (type in Tring Collection, now in the American Museum of Natural History, New York, examined).

*Tanagra fulvicrissa omissa* Chapman, Bull. Amer. Mus. N. H., 36, p. 590, 1917—Quibdó, Bagado, Juntas de Tamaná, Noanamá, and San José, Pacific Colombia.

*Euphonia fulvicrissa* (not of Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 498—Remedios (Rio Ité) and Rio Neche, Antioquia, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 264, 1883—part, Colombia; Berlepsch, Journ. Orn., 32, p. 288, 1884—Bucaramanga (descr. of female); Sclater, Cat. Bds. Brit. Mus., 11, p. 73, 1886—part, spec. b-e, Colombia (Remedios, Neche, "Bogotá"); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 18, 1904—part, Antioquia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1018, 1912—part, Colombia (Bucaramanga, "Bogotá," Antioquia).

<sup>1</sup> Males from Panama and Chiriquí have the upper parts, but especially the throat and sides of the head, decidedly greenish blue. According to Hartert, the type, said to be from "Santa Marta," where no representative of the Fulvous-vented *Euphonia* has ever been found again, agrees with "birds from Panama and Costa Rica."

*Additional material examined.*—Panama: Boquete, 2; Bugaba, 1; Panama Railroad, 5.

<sup>2</sup> *Tanagra fulvicrissa omissa* (Hartert): Similar to *T. f. fulvicrissa*, but adult male with upper parts, sides of head, and throat decidedly steel blue without any greenish tone. Wing (males), 52–56; tail, 28–30.

The metallic gloss of the head and upper side is just intermediate in tone between the bluish bottle-green of *fulvicrissa* (most strongly pronounced in Chiriquí birds) and the bright purplish blue of *purpurascens*.

While "Bogotá" and Bucaramanga specimens have the white patch on the inner web of the outermost rectrix very nearly as extensive as in the nominate race, an adult male from Noanamá, Pacific Colombia, resembles *purpurascens* in having but a narrow oblique white streak on that feather.

*Material examined.*—Colombia: "Bogotá," 4; Bucaramanga, 2; Noanamá, 1; El Tigre, 1.



*Euphonia fulvicrissa* (subsp.) Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1100—Noanamá and El Tigre, Pacific Colombia (crit.).

*Range*.—Tropical zone of Colombia (Pacific coast south to San José; Remedios and Rio Neche, Antioquia; Magdalena Valley).

**Tanagra fulvicrissa purpurascens** (Hartert).<sup>1</sup> PURPLISH FULVOUS-VENTED EUPHONIA.

*Euphonia fulvicrissa purpurascens* Hartert, Nov. Zool., 8, p. 377, 1901—Pambilár, Prov. Esmeraldas, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York, examined); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1018, 1912—"Paramba" and San Javier, Ecuador.

*Tanagra fulvicrissa purpurascens* Chapman, Bull. Amer. Mus. N. H., 36, p. 590, 1917—Barbacoas, Nariño, Colombia; idem, l.c., 55, p. 652, 1926—Ecuador (ex Hartert).

*Range*.—Tropical zone of southwestern Colombia (Barbacoas, Nariño) and northwestern Ecuador (Prov. Esmeraldas).

**\*Tanagra minuta minuta** (Cabanis). WHITE-VENTED EUPHONIA.

*Euphonia olivacea* (not *Tanagra olivacea* Gmelin) Desmarest, Hist. Nat. Tang., livr. 10, pl. 27, 1806—Cayenne (descr. of female; type in Paris Museum examined).

*Euphonia minuta* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 671, 1849—British Guiana (descr. of female; type in Berlin Museum); Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Pelzeln, Orn. Bras., 3, p. 203, 1870—part, Barra do Rio Negro (spec. examined).

*Euphonia minuta* Sclater, Proc. Zool. Soc. Lond., 23, p. 159, 1855—"Bogotá," Colombia; idem, l.c., 24, p. 274, 1856—Cayenne, British Guiana, Barra do Rio Negro, and "Bogotá" (monog.); idem, Cat. Amer. Bds., p. 57, 1862—"Bogotá" and Cayenne; Salvin, Cat. Strickl. Coll., p. 180, 1882; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 258, 1883—part, Colombia to Guiana and Amazonia; Salvin, Ibis, 1885, p. 208—Bartica Grove and Camacusa, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 71, 1886—part, spec. a-l, Cayenne, British Guiana (Camacusa, Bartica Grove), and Colombia ("Bogotá"); Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá"; Penard, Vog. Guyana, 2, p. 422, 1910—Surinam.

*Euphonia strictifrons* Strickland, Contrib. Ornith., 1851, p. 72—Cayenne (descr. of male; type in coll. of P. L. Sclater, now in British Museum); Sclater, l.c., p. 84—Cayenne.

<sup>1</sup>*Tanagra fulvicrissa purpurascens* (Hartert): Similar to *T. f. omissa*, but upper parts and throat glossed with purplish blue inclining to violet, and outermost rectrix without, or with very little, white on the inner web; female not distinguishable. Wing (male), 53; tail, 28-29.

*Material examined*.—Western Ecuador, Prov. Esmeraldas: Pambilár, 1 (the type); San Javier, 5.

*Euphonia pumila* Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—Cayenne and "Nuova Granada" (descr. of male; type in coll. M. Parzudaki, present location unknown).<sup>1</sup>

*Euphonia olivacea* Sclater, Contrib. Orn., 1851, p. 91 (crit.); Berlepsch and Hartert, Nov. Zool., 9, p. 17, 1902—Nicare, Caura River, Venezuela; Ihering, Cat. Faun. Braz., 1, p. 347, 1907—part, Rio Negro, Guiana, Colombia ("Bogotá"), and Venezuela; Berlepsch, Nov. Zool., 15, p. 113, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1015, 1912—part, Colombia ("Bogotá"), Venezuela, British Guiana, Surinam, Cayenne, and Rio Negro.

*Tanagra olivacea olivacea* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 171, 1916—Nicare, Venezuela; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 86, 1918—vicinity of Paramaribo, Surinam.

*Tanagra minuta* Chubb, Bds. Brit. Guiana, 2, p. 497, 1921—Cotinga River, Ituribisci River, Bonasika, Great Falls of Demerara, Bartica, and Camacusa.

*Range.*—French, Dutch, and British Guiana, south to the north bank of the Brazilian Amazon (Manáos), west through southern Venezuela to the eastern foot of the eastern Andes of Colombia ("Bogotá" collections).<sup>2</sup>

2: British Guiana (Demerara River, 1); Colombia ("Bogotá," 1).

### *Tanagra minuta mellea* Bangs and Penard.<sup>3</sup> WESTERN WHITE-VENTED EUPHONIA.

*Tanagra olivacea mellea* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 87, 1918—Iquitos, Peru (type in Museum of Comparative Zoology, Cambridge, Mass.).

<sup>1</sup> Although no mention is made of the white crissum, the other distinctive characters given in comparison to *E. chlorotica* clearly point to *T. m. minuta*.

<sup>2</sup> Several native "Bogotá" skins agree in every respect with Guianan birds. They doubtless came from the eastern base of the east Colombian Andes, since another recognizable form occurs on the lower Cauca and along the Pacific coast. A single adult male from Manáos and another from the Caura Valley, Venezuela, are similar.

*Additional material examined.*—French Guiana: Cayenne, 5.—Dutch Guiana: Paramaribo, 2.—British Guiana: Bartica Grove, 1; Camacusa, 6.—Venezuela: Nicare, Caura River, 1.—Brazil: Manáos, 1.—Colombia: "Bogotá," 4.

<sup>3</sup> *Tanagra minuta mellea* Bangs and Penard: Exceedingly close to *T. m. minuta*, but upper parts of adult males with a more purplish, less greenish blue gloss, this being particularly noticeable on crown and hind neck.

Rather an unsatisfactory race, which needs corroboration by more adequate material. An adult male from Engenho do Gama, Matto Grosso, and some from Teffé and Iquitos are indeed more purplish, but other Peruvian specimens hardly differ from the nominate race. In the absence of material from lower Amazonia, I am unable to say how far east the range of this form, if it can be maintained at all, should be extended.

*Material examined.*—Brazil: Teffé, Rio Solimões, 2; Bom Lugar, Rio Purús, 1; Engenho do Gama, Matto Grosso, 1.—Peru: Iquitos, 5; Nauta, 1; Yurimaguas, 1.—Bolivia: Rio San Mateo, 2.

*Euphonia minuta* (not of Cabanis) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 179—Nauta and upper Ucayali, Peru; idem, l.c., 1867, p. 749—Xeberos, Peru; idem, l.c., 1873, p. 260—Nauta, upper Ucayali, and Xeberos; Pelzeln, Orn. Bras., 3, p. 203, 1870—part, Engenho do Gama, Matto Grosso (spec. examined); Taczanowski, Orn. Pér., 2, p. 442, 1884—Peru (Nauta, Ucayali, Xeberos, Moyobamba); Sclater, Cat. Bds. Brit. Mus., 11, p. 71, 1886—part, spec. n. o, Nauta and upper Ucayali, Peru; Berlepsch, Journ. Orn., 37, p. 296, 1889—Tarapoto and Yurimaguas, Peru.

*Euphonia olivacea* (not of Desmarest) Ihering, Cat. Faun. Braz., 1, p. 347, 1907—part, Matto Grosso and Amazonia; Hellmayr, Nov. Zool., 14, p. 43, 1907—Teffé, Rio Solimões, Brazil; Sneathlidge, Journ. Orn., 56, p. 9, 1908—Bom Lugar, Rio Purús; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1015, 1912—part, Rio Purús, Engenho do Gama (Matto Grosso), Peru (Nauta, Ucayali, Xeberos, Moyobamba), and Bolivia (San Mateo); (?) Sneathlidge, Bol. Mus. Goeldi, 8, p. 439, 1914—Providencia (Pará), Rio Tocantins (Baião), Rio Tapajóz (Boim, Pinhel), and (certè) Rio Purús (Bom Lugar).

(?) *Euphonia olivacea olivacea* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad., Wiss., 26, No. 2, pp. 8, 87, 1912—Souza, Pará.

*Tanagra minuta minuta* Naumburg, Bull. Amer. Mus. N. H., 60, p. 369, 1930—Matto Grosso (Engenho do Gama).

*Range.*—Upper Amazonia, from the Marañón (Nauta, Iquitos) and the Rio Solimões (Teffé) through eastern Peru and western Brazil south to northern Bolivia (San Mateo) and western Matto Grosso (Engenho do Gama), and possibly along the south bank of the Amazon to the Pará region.

\**Tanagra minuta humilis* (Cabanis).<sup>1</sup> NORTHERN WHITE-VENTED EUPHONIA.

*Phonasa humilis* Cabanis, Journ. Orn., 8, p. 334, 1860—Costa Rica (descr. of young male; type in Berlin Museum).

*Acroleptes humilis* Cabanis, Journ. Orn., 9, p. 89, 1861—Costa Rica (descr. of adult male; crit.).

*Euphonia humilis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—San José, Costa Rica; Frantzius, Journ. Orn., 17, p. 297, 1869—San José; Nutting, Proc. U. S. Nat. Mus., 6, p. 373, 1883—San Juan del Sur, Nicaragua.

<sup>1</sup> *Tanagra minuta humilis* (Cabanis) differs from the two southern races by larger size and, in the male sex, by much wider, deeper yellow frontal band. Crown and hind neck are as strongly purplish as in *T. m. mellea*, while the remainder of the upper parts shows a decided greenish blue gloss, more like *T. m. minuta*.

A specimen said to be from "Sarayacu" is essentially like one from Gualea and others from Central America, and doubtless came from the western slope of the Andes, as is the case with many of Buckley's skins provided with the same locality.

Nineteen specimens (none from Guatemala or Nicaragua) examined.

*Euphonia minuta* (not *Euphonia minuta* Cabanis) Sclater and Salvin, Ibis, 1860, p. 275—Coban, Guatemala; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332, 1861—Panama Railroad; Salvin, Proc. Zool. Soc. Lond., 1870, p. 186—Calovévora (Veraguas) and Bugaba (Chiriquí); Sclater, Ibis, 1873, p. 373—Chontales, Nicaragua; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 498—Remedios, Antioquia, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 258, 1883—part, Guatemala (Coban), Nicaragua (Chontales), Costa Rica, and Panama (Chiriquí, Bugaba, Calovévora, Panama Railroad); Sclater, Cat. Bds. Brit. Mus., 11, p. 71, 1886—part, spec. m, p-w, Ecuador (“Sarayacu”), Colombia (Remedios), Panama (Bugaba, Chiriquí, Calovévora), Costa Rica, Nicaragua (Chontales), and Guatemala (Coban, Vera Paz); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—San José, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 531, 1891—Costa Rica (crit.); idem, Auk, 9, p. 25, 1892—San José, Costa Rica; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 14, 1899—Gualea, Ecuador.

*Euphonia minuta humilis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 23, 1902—Guatemala to Panama; Bangs, Auk, 24, p. 308, 1907—Boruca, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 869, 1910—Costa Rica (San José, Pózo Azul de Pirris, Escazú, Volcan de Irazú, Carrillo, San Miguel, San Sebastian, El Hogar, Boruca).

*Euphonia olivacea humilis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1016, 1912—Guatemala to Panama.

*Tanagra olivacea humilis* Chapman, Bull. Amer. Mus. N. H., 36, p. 590, 1917—Colombia (Quibdó, Baudo, Juntas de Tamaná, Noanamá, Barba-coas, Puerto Valdivia); idem, l.c., 55, p. 652, 1926—Ecuador; Griscom, Bull. Mus. Comp. Zool., 69, p. 187, 1929—Cana, Darien; Austin, l.c., p. 391, 1929—Mountain Cow, British Honduras; Peters, l.c., 71, p. 340, 1931—Almirante, Panama; Griscom, l.c., 72, p. 369, 1932—Obaldia, Panama; idem, Bull. Amer. Mus. N. H., 64, p. 373, 1932—Guatemala.

*Range.*—Guatemala (two records from Coban); British Honduras; Nicaragua (two records); Costa Rica; Panama; Colombia (Remedios and Puerto Valdivia, Antioquia; Pacific coast); and western Ecuador (Gualea).

4: Costa Rica (San José, 2; Limón, 2).

### *Tanagra godmani* (Brewster).<sup>1</sup> GODMAN'S EUPHONIA.

*Euphonia godmani* Brewster, Auk, 6, p. 90, 1889—Mazatlan, Sinaloa, and Alamos, Sonora, Mexico (type, from Mazatlan, in U. S. National Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 24, 1902—western Mexico (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 366, 1905—Escuinapa and Mount Juan Lisiarraga, Sinaloa; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1016, 1912 (range); McLellan, Proc. Calif. Acad. Sci., (4), 16, p. 48, 1927—near Point Camaron, San Blas, Nayarit.

<sup>1</sup> Not having seen this species, I cannot say whether it is more nearly related to *T. affinis* or to *T. minuta*. The white under tail coverts would seem to place it in the neighborhood of the latter, while the slate gray crown and hind neck of the female suggest affinities to *T. affinis*.



*Euphonia affinis* (not *Tanagra* [*Euphonia*] *affinis* Lesson) Lawrence, Mem. Boston Soc. N. H., 2, p. 273, 1874—Mazatlan (Sinaloa) and Sierra Madre (Colima), Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 257, 1883—part, Mazatlan and Sierra Madre, Colima.

*Range*.—Western Mexico, in states of Sonora (Alamos), Sinaloa (Mazatlan, Plomosas, Escuinapa, Mount Juan Lisiarraga), Colima (Sierra Madre), and Nayarit (San Blas, Rosa Morada).

\**Tanagra affinis* Lesson. LESSON'S EUPHONIA.

*Tanagra* [*Euphonia*] *affinis* Lesson, Rev. Zool., 5, p. 175, 1842—Realejo, Nicaragua (descr. of male;<sup>1</sup> location of type not stated, probably in the author's private collection).<sup>2</sup>

*Euphonia affinis* Scater, Proc. Zool. Soc. Lond., 24, p. 274, 1856—Mexico (Orizaba), Guatemala, and Nicaragua (Realejo) (monog.); idem, l.c., p. 303, 1856—Orizaba; Scater and Salvin, Ibis, 1859, p. 16—Guatemala; idem, Ibis, 1860, p. 33—Dueñas, Guatemala; Scater, Cat. Coll. Amer. Bds., p. 57, 1862—Orizaba; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—San Juan, Costa Rica; idem, l.c., 9, p. 200, 1869—Mérida, Yucatan; Sumichrast, Mem. Bost. Soc. Nat. Hist., 1, p. 550, 1869—hot region of Vera Cruz, Mexico; Frantzius, Journ. Orn., 17, p. 297, 1869—San José, Costa Rica; Lawrence, Bull. U. S. Nat. Mus., 4, p. 18, 1876—Tehuantepec and Barrio, Oaxaca; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 42, 1878—Guatemala; idem, Proc. Zool. Soc. Lond., 1883, p. 442—Mérida, Yucatan (habits); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 257, 1883—part, Mexico (excepting Mazatlan and Sierra Madre), British Honduras (Belize), Guatemala, Nicaragua, and Costa Rica; Scater, Cat. Bds. Brit. Mus., 11, p. 65, 1886—Mexico (Orizaba, Yucatan), British Honduras (Belize), Guatemala (Calderas, Dueñas, Savanna Grande, Retalhuleu), and Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Liberia and Alajuela, Costa Rica; Stone, Proc. Acad. Nat. Sci. Phila., 1890, p. 210—between Tunkas and Shkolak, Yucatan; Richmond, Proc. U. S. Nat. Mus., 18, p. 631, 1896—Altamira, Tamaulipas; Underwood, Ibis, 1896, p. 435—Miravalles, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 21, 1902—Mexico to Costa Rica (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 142, 1906—Chichen Itzá, Yucatan; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 121, 1907—Gualan, Patulul, Mazatenango, and San José, Guatemala; Carriker, Ann. Carnegie Mus., 6, p. 870, 1910—Costa Rica (Pírges, Miravalles, Bolson, Tenorio, Cariblanco de Sarapiquí, Bebedéro); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1015, 1912—southeastern Mexico to Costa Rica.

*Phonasca affinis* Cabanis, Journ. Orn., 8, p. 332, 1860—San José, Costa Rica (crit.).

<sup>1</sup> The description makes no mention of the extensive white area on the inner webs of the lateral rectrices, but the passage, "capite *dimidio parte*, thorace, . . . aureis," seems to exclude *T. luteicapilla*.

<sup>2</sup> The type may yet exist in the Museum of the Medical School at Rochefort (France), where part of Lesson's collection was deposited.

*Tanagra affinis* Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 486, 1927—Presidio, Vera Cruz, Mexico; idem, l.c., 68, p. 403, 1928—Chivelá and Tapanatepec, Oaxaca, Mexico; Griscom, Bull. Amer. Mus. N. H., 64, p. 373, 1932—Guatemala (Finca El Cipres, Hacienda California, Carolina, San Felipe); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 337, 1932—Cantarranas, Honduras.

*Range*.—Southeastern Mexico (in states of Tamaulipas, Vera Cruz, Oaxaca, Tabasco, and Yucatan), British Honduras, Guatemala, Honduras, Nicaragua, and northwestern Pacific slope of Costa Rica.<sup>1</sup>

15: Mexico (Teapa, Tabasco, 1; Yucatan, 3); Guatemala (Gualan, Zacapa, 1; Patulul, Sololá, 1; Mazatenango, 2; San José, Esquintla, 1); Nicaragua (Matagalpa, 1; San Gerónimo, 1); Costa Rica (Las Cañas, 3; San José, 1).

\**Tanagra luteicapilla* (Cabanis).<sup>2</sup> YELLOW-CROWNED EUPHONIA.

*Phonasca luteicapilla* Cabanis, Journ. Orn., 8, p. 332, 1860—Costa Rica (descr. of adult male; type in Berlin Museum).

*Phonasca gracilis* Cabanis, Journ. Orn., 8, p. 333, 1860—San José, Costa Rica (descr. of female and young male; type, No. 14743, in Berlin Museum examined).<sup>3</sup>

*Euphonia gracilis* Sclater, Cat. Coll. Amer. Bds., p. 359, 1862—Costa Rica; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 172—Costa Rica (young birds); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—San José, Costa Rica; Frantzus, Journ. Orn., 17, p. 297, 1869—San José, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 259, 1883—part, descr. of female and San José, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 69, 1886—part, spec. a, b, Costa Rica.

<sup>1</sup> *Additional material examined*.—Mexico, Yucatan: Mérida, 3; unspecified, 1.—Guatemala: Dueñas, 3.—Honduras: San Pedro, 2; Chamelicon, 2.—Nicaragua: Managua, 1.—Costa Rica: Bebedero, 3.

<sup>2</sup> *T. luteicapilla* (Cabanis) seems to be allied to *T. chlorotica*, but the interrelations of the small, yellow-crowned euphonias offer a very complicated problem, which cannot be attacked without a monographic study of the whole group.

<sup>3</sup> Reexamination of the female type and a young male in the Berlin Museum, which formed the basis for the description of *Phonasca gracilis* Cabanis, shows conclusively that they pertain to *T. luteicapilla*. Both agree with Costa Rican specimens in dimensions and in proportion of bill, being much smaller than, and quite differently colored from, the species to which Cabanis's name had been misapplied. The female (wing, 54; tail, 31) is plain yellowish olive green above; the wings and tail feathers are dusky, margined with the color of the back; the under parts somewhat duller than wax yellow, washed with olivaceous on the sides and flanks. The specimen cannot be told from Field Museum No. 7143, female adult, Buenos Aires, Costa Rica, Mar. 12, 1892, Geo. K. Cherrie. The other example, No. 14742, is a young male in change of plumage. It still wears the female dress, but yellow feathers already appear on the forehead and in the anterior superciliary region, while a few scattered glossy black feathers may be noticed in front of the eye and on the throat; the under parts are somewhat brighter yellow. Its measurements are: wing, 54; tail, 30.



*Euphonia luteicapilla* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (ex Cabanis); Frantzius, Journ. Orn., 17, p. 297, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 186—Boquete de Chitrá (Veraguas), Bugaba (Chiriquí), and Paraiso Station, Panama (descr. of female); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 260, pl. 16, fig. 1 (male), 1883—Costa Rica (San José, Turrialba) and Panama (Volcan de Chiriquí, Bugaba, Boquete de Chitrá, Cordillera del Chucú, Chepo, Paraiso Station); Sclater, Cat. Bds. Brit. Mus., 11, p. 68, 1886—Costa Rica (Turrialba) and Panama (Bugaba, Boquete de Chitrá, Cordillera del Chucú, Paraiso Station, Chepo); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (San José, Las Trojas de Puntarenas, Pacaca, Monte Redondo de San José); Cherrie, Auk, 9, p. 24, 1892—San José, Costa Rica (descr. of young male); idem, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 137, 1893—Lagarto, Boruca, Térraba, and Buenos Aires, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 488, 1893—Rio Escondido, Nicaragua; Bangs, Auk, 18, p. 369, 1901—Divalá and David, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 20, 1902—Nicaragua to the Isthmus of Panama (monog.); Bangs, Auk, 24, p. 308, 1907—Boruca and Paso Real, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 869, 1910—Costa Rica (Pírges, Bonilla, Alajuela, San José, El General, Buenos Aires de Térraba, Tenorio, Miravalles, Boruca, El Hogar, Peralta; habits); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 277, 1910—Guayábo, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1015, 1910—Costa Rica to Panama; Rendahl, Ark. Zool., 12, No. 8, p. 32, 1919—Pacora, Panama.

*Tanagra luteicapilla* Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 462, 1928—Almirante, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 340, 1931—Changuinola and Almirante, Panama; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 244, 1932—Eden, Nicaragua.

*Range*.—Eastern Nicaragua, all of Costa Rica, and Panama east to the Canal Zone.<sup>1</sup>

7: Costa Rica (Guayábo, 1; El Pózo de Térraba, 2; Térraba Valley, 2; Boruca, 1; Buenos Aires, 1).

\**Tanagra chlorotica trinitatis* (Strickland).<sup>2</sup> TRINIDAD  
EUPHONIA.

*Euphonia trinitatis* Strickland, Contrib. Orn., 1851, Part 2, p. 72, March, 1851—Trinidad, Venezuela ("Cumaná"), and "St. Thomas" (errore)

<sup>1</sup> Twenty-five additional specimens, including five from Boquete, Chiriquí, have been examined.

<sup>2</sup> *Tanagra chlorotica trinitatis* (Strickland), in the male sex, merely differs from the nominate race by having the yellow color extended over the occiput instead of restricted to the fore-crown; generally less purplish gloss on the upper parts; and the white at the base of the primaries and on the inner web of the lateral rectrices more extensive. The female does not seem to be distinguishable with certainty, unless the flanks be somewhat duller, less yellowish.

*T. trinitatis* has always been treated as a distinct species, and the late Count Berlepsch even went so far as to separate a supposed race of *T. chlorotica*, occurring side by side with it in the Orinoco Valley. His principal arguments for the specific

(type, from Trinidad, in coll. of H. E. Strickland, now in University Museum, Cambridge, Engl.; cf. Salvin, Cat. Strickl. Coll., p. 179, 1882); Sclater, l.c., p. 84—same localities; idem, Proc. Zool. Soc. Lond., 24, p. 274, 1856—Trinidad (monog.); idem, Cat. Coll. Amer. Bds., p. 57, 1862—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caracas, Venezuela; idem, l.c., 1879, p. 498—Remedios, Antioquia, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 66, 1886—Trinidad, Venezuela (Caracas), and Colombia ("Bogotá," Remedios, Santa Marta); Allen, Bull. Amer. Mus. N. H., 4, p. 51, 1892—northeastern Venezuela; Chapman, l.c., 6, p. 29, 1894—Trinidad (ex Léotaud); idem, l.c., 7, p. 322, 1895—Caura Valley, Trinidad; Phelps, Auk, 14, p. 364, 1897—San Antonio [Bermúdez], Venezuela; Bangs, Proc. Biol. Soc. Wash., 12, p. 141, 1898—Santa Marta, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 170, 1900—Bonda, Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 17, 1902—Ciudad Bolívar, Altagracia, and Caicara, Rio Orinoco, Venezuela; Allen, Bull. Amer. Mus. N. H., 21, p. 293, 1905—Bonda, Colombia (nest and eggs descr.); Hellmayr, Nov. Zool., 13, p. 13, 1906—Chaguaramas and Pointe Gourde, Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1014, 1125, 1912—Trinidad, Venezuela (Puerto Cabello, Caracas, Maturin, "Cumaná," Altagracia, Ciudad Bolívar, Maipures, Caicara), and Colombia (Santa Marta, Barranquilla, "Bogotá," Antioquia).

*Euphonia (Tanagra) chlorotica* (not of Linnaeus) Lesson, Traité d'Orn., p. 460, 1831—Trinidad.

*Euphonia chlorotica* Sclater, Cat. Coll. Amer. Bds., p. 57, 1862—part, spec. c, Santa Marta; Léotaud, Ois. Trinidad, p. 308, 1866—Trinidad; Berlepsch

distinctness of these birds were the varying extent of white at the base of the remiges, the gloss of the upper parts, and the coloration of the under parts in the females, supposed to be uniform greenish yellow in *chlorotica* (and *violaceicollis*), and grayish white in the middle in *trinitatis*. As we have already shown on another occasion (Nov. Zool., 30, p. 234, 1923), the last-named distinction does not exist, since adult females of *chlorotica* and *violaceicollis* have the median under parts just as extensively grayish white as *trinitatis*. The (more bluish or purplish) gloss of the dorsal surface in the male sex is subject to as much individual variation as in other euphonias, though it cannot be denied that birds from Trinidad and the Caribbean districts of Venezuela and Colombia are generally less purplish above than those from more southern localities. As to the extent of the white patch at the base of the remiges, I cannot see in this character a specific distinction, since certain individuals from Trinidad and Bermúdez (*trinitatis*) have just as much white as others from Brazil (*violaceicollis*). Birds from the upper Orinoco ("*pileata*") possibly have the white on the inner webs of the lateral rectrices and the yellow cap slightly more restricted than a series from Trinidad, but as Count Berlepsch himself mentions intermediates, this variation seems to suggest intergradation to *chlorotica* rather than specific difference. While I have yet to see plain yellow-bellied "females" from the range of *trinitatis* as outlined above, such a stage—believed to represent "the juvenal dress"—is described by Todd and Carriker as occurring in the Santa Marta region, which is solely inhabited by *trinitatis*. Cherrie's remarks (Sci. Bull., Mus. Brookl. Inst., 2, p. 169, 1916) on the female plumages of *trinitatis* in the Orinoco Valley are also somewhat significant, and may account for Berlepsch's conception of the characters of his "*pileata*" in the female sex.

*Additional material examined.*—Trinidad: Chaguaramas, 2; Pointe Gourde, 1; Aripo, 4; Carenage, 6; Santa Cruz, 1; unspecified, 1.—Venezuela: Maturin, 1; Bermúdez (Santa Ana, San Antonio, etc.), 10; Ciudad Bolívar, Rio Orinoco, 5; Quiribana de Caicara and Caicara, Rio Orinoco, 4.—Colombia: Aracataca, Santa Marta, 2.

and Hartert, Nov. Zool., 9, p. 17, 1902—Caicara, Quiribana de Caicara, Maipures, and Altigracia, Rio Orinoco, Venezuela; Beebe, Zoologica (N.Y.), 1, p. 102, 1909—Rio Guarapiche, Orinoco Delta, Venezuela.

*Tanagra chlorotica* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 169, 1916—Orinoco River, Venezuela (ex Berlepsch and Hartert).

*Tanagra trinitatis* Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 210, 1913—Cariquito, Paria peninsula, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 169, 1916—Ciudad Bolivar, Orinoco, and Caura, Venezuela (nest and eggs descr.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 498, 1922—Fundación, Bonda, Onaca, Santa Marta, Mamatoco, Tierra Nueva, and Fonseca, Colombia (habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 418, 1931—Rio Frio, Magdalena, Colombia.

*Euphonia aurea pileata* Berlepsch,<sup>1</sup> Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1014, 1124, 1912—Quiribana de Caicara, Rio Orinoco, Venezuela (type in Berlepsch Collection, now in Frankfurt Museum).

*Tanagra aurea cynophora* Oberholser, Proc. Biol. Soc. Wash., 31, p. 126, 1918—new name for *Euphonia aurea pileata* Berlepsch, preoccupied.

*Tanagra aurea pileata* Chapman, Bull. Amer. Mus. N. H., 36, p. 588, 1917—Buena Vista, above Villavicencio, eastern base of eastern Andes, Colombia.

*Range.*—Island of Trinidad; northern Venezuela south to the Orinoco basin, west to the eastern base of the eastern Andes of Colombia (Buena Vista, above Villavicencio); northern Colombia (Santa Marta region and lower Magdalena Valley).

7: Venezuela (Caracas, 3; Maracay, Aragua, 1; Encontrados, Zulia, 1); Colombia (Fundación, Santa Marta, 1; Puerto Zapote, Bolivar, 1).

**\**Tanagra chlorotica chlorotica* Linnaeus. PURPLE-THROATED EUPHONIA.**

*Tanagra chlorotica* Linnaeus, Syst. Nat., 12th ed., 1, p. 317, 1766—based on "Le Tangara noir et jaune de Cayenne" Brisson, Orn., 3, p. 34, pl. 2, fig. 3; Cayenne (type in Réaumur Collection).

*Tanagra elegans* P. L. S. Müller, Natursyst., Suppl., p. 160, 1776—based on "Tangara, de Cayenne" Daubenton, Pl. Enl., pl. 114, fig. 1 (male adult).

*Euphonia chlorotica* Sclater, Contrib. Orn., 1851, p. 84—Cayenne and Demerara; idem, Proc. Zool. Soc. Lond., 24, p. 273, 1856—Cayenne (monog.); idem, Cat. Coll. Amer. Bds., p. 57, 1862—part, spec. b, f, Cayenne; idem, Cat. Bds. Brit. Mus., 11, p. 64, 1886—part, subsp. *typica*, Cayenne and Demerara; Chapman and Riker, Auk, 7, p. 267, 1890—Santarém, Brazil (crit.); Berlepsch, Nov. Zool., 15, p. 113, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 418, 1910—Surinam.

*Euphone chlorotica* Burmeister, Syst. Uebers. Th. Bras., 3, p. 194, 1856—part, Pará, Guyana, and "Columbien" (errore).

*Euphonia chlorotica chlorotica* Hellmayr, Nov. Zool., 14, p. 6, 1907—Itaitúba, Rio Tapajóz; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26,

<sup>1</sup> Not *Tanagra pileata* Boddaert, Tabl. Pl. Enl., p. 45, 1783.

No. 2, p. 125, 1912—Cachoeira, Marajó; idem, Nov. Zool., 30, p. 234, 1923—Cayenne and Brazil (Marajó; Itaitúba, Rio Tapajóz).

*Euphonia aurea* Richmond, Smiths. Misc. Coll., 47, p. 345, 1905—based on "*Parus aureus*" Vroeg, Cat. Rais. Coll. Ois., p. 18, 1764; Surinam (cf. Stone, Auk, 29, pp. 207–208, 1912).

*Euphonia aurea* Ihering, Cat. Faun., Braz., 1, p. 346, 1907—part, Pará; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1013, 1124, 1912—Cayenne, Surinam, British Guiana (Demerara), and northern Brazil (Pará, "Teffé, Rio Negro"<sup>1</sup>); Sneathlage, Bol. Mus. Goeldi, 8, p. 438, 1914—Rio Guamá (Itaçuão), Rio Iriri (Santa Julia), Rio Tapajóz (Pinhel), Marajó, and Monte Alegre, Brazil.

*Euphonia minuta* (not of Cabanis) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 100, 1910—Miritiba, Maranhão (spec. examined).

*Euphonia aurea violaceicollis* (not *Acroleptes violaceicollis* Cabanis) Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 186, 1925—part, Miritiba, Maranhão.

*Tanagra chlorotica violaceicollis* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 278, 1929—part, Maranhão (Tury-assú, Manguça Island, and Codó, Cocos).

*Tanagra chlorotica* Chubb, Bds. Brit. Guiana, 2, p. 496, 1921—Supinaam River and Demerara.

*Tanagra chlorotica chlorotica* Naumburg, Bull. Amer. Mus. N. H., 60, p. 367, 1930—Tapirapoan and Juruena, northern Matto Grosso.

*Range*.—French, Dutch, and British Guiana, and northern Brazil, east to Maranhão, south to northern Matto Grosso (Tapirapoan; Juruena River).<sup>2</sup>

4: Brazil, Maranhão (Tury-assú, 2; Manguça Island, 1; Codó, Cocos, 1).

\**Tanagra chlorotica serrirostris* (Lafresnaye and d'Orbigny).<sup>3</sup>  
GREATER PURPLE-THROATED EUPHONIA.

<sup>1</sup> I do not find any record in literature from either of these localities.

<sup>2</sup> In birds from French Guiana (topotypical) the wing ranges from 51 to 55, the tail from 31 to 34 mm. Specimens from northern Brazil are slightly more violaceous on the crown and hind neck, and sometimes attain larger measurements (wings of males, 53–56, one from Maranhão even 57). They thus verge to the southern form, but as a whole seem better referred to *chlorotica*.

*Additional material examined*.—French Guiana: Cayenne, 8.—Brazil: Cachoeira, Marajó, 1 (wing, 56); Monte Alegre, 1 (wing, 51); Itaitúba, Rio Tapajóz, 1 (wing, 55); Miritiba, Maranhão, 2; Bõa Vista, Maranhão, 1; Juruena, Matto Grosso, 1 (wing, 54½).

<sup>3</sup> *Tanagra chlorotica serrirostris* (Lafresnaye and d'Orbigny): Similar to *T. c. chlorotica*, but somewhat larger; adult males with forehead and under parts rather paler yellow and generally with more purplish head and throat; female distinguishable only by larger size.

On once more comparing good series from Brazil, Bolivia, and Argentina I find it impossible to maintain the distinctness of *serrirostris* and *violaceicollis*. It is admitted that males from western Argentina show more variation in the intensity of the yellow on the under parts than those from Brazil, but in agreement with



*Euphonia serrirostris* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 30, 1837—Guarayos, Santa Cruz, Bolivia (type in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 398, 1930); d'Orbigny, Voy. Amér. Mérid., Ois., p. 267, pl. 21, fig. 2 (female), 1839—Pacu, on the Rio Grande, Santa Cruz de la Sierra, Bolivia; Sclater, Contrib. Orn., 1851, p. 90—Guarayos, Bolivia (ex d'Orbigny); idem, Proc. Zool. Soc. Lond., 24, p. 273, 1856—part, Guarayos, Bolivia; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 243—Lagõa Santa, Minas Geraes; Chubb, Ibis, 1910, p. 621—Sapucay, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1014, 1124, 1912—Bolivia, Paraguay, and Argentina.

*Euphone serrirostris* Pelzeln, Orn. Bras., 3, p. 202, 1870—Rio de Janeiro (Sapitiba, Registo do Sai, Rio de Janeiro), São Paulo (Ypanema, Rio Paraná), and Goyáz (Goyáz City).

*Euphone chlorotica* (not *Tanagra chlorotica* Linnaeus) Lichtenstein, Verz. Doubl. Berlin Mus., p. 29, 1823—Brazil; Sundevall, Vetensk. Akad. Handl. for 1833, p. 310, pl. 10, figs. 2 (young male), 3 (adult male), 1834—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 194, 1856—part, Pernambuco and Bahia.

*Euphonia chlorotica* Sclater, Cat. Coll. Amer. Bds., p. 57, 1862—part, spec. a, d, e, Bolivia and Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 598—Bolivia (Guarayos; Tilotilo, Yungas); White, l.c., 1882, p. 596—Concepción, Misiones, and Fuerte de Andalgalá, Catamarca; Sclater, Cat. Bds. Brit. Mus., 11, p. 64, 1886—part, subsp. *violaceicollis*, Brazil (Pernambuco), Argentina (Catamarca), and Bolivia (Tilotilo);

Dabbene I cannot satisfactorily separate birds from Tucumán, Salta, and eastern Bolivia on one side and a series from Misiones on the other. The latter are, besides, quite identical with typical *violaceicollis*, of eastern Brazil. The applicability of the name *serrirostris* to the present form is perhaps open to doubt. Since writing about the original examples in the Paris Museum (Nov. Zool., 30, p. 232, 1923), when I noticed certain discrepancies between the description of the adult male and the young male in the French National Collection, I had the opportunity of examining in the Museum of Comparative Zoology, at Cambridge, Mass., a specimen from Guarayos secured by d'Orbigny. This bird corresponds in every detail to the characters of the "adult male" given by Lafresnaye and d'Orbigny, and undoubtedly must be the actual type. While resembling adult males from Buenavista, Santa Cruz, in dimensions, color of the yellow frontal patch and under parts, and extent of white on the inner web of the lateral rectrices, it differs markedly by having all parts that are purplish or steel-blue in the normal plumage (viz., hind crown, sides of head, throat, back, and upper tail coverts), dull olive with a brassy sheen, and the flight feathers dull brownish (instead of deep black) with olive greenish instead of steel blue margins. The rump and tail coverts are much brighter, more yellowish olive than the back. The brassy gloss on the dorsal feathers reminds one of *T. chrysopasta*, but is, of course, much less brilliant. I can hardly believe that another species of euphonia exists in Bolivia, which never becomes black (the bird has all the appearance of being fully adult), and am inclined to regard the type as an individual in "retarded" plumage of the ordinary purple-headed species.

*Additional material examined.*—Brazil: Boca da Ipueiro, Rio Grande, Bahia, 5; Bahia, 12; Santa Rita, Rio Preto, Bahia, 1; Parnaguá, Piauh, 1; Lagõa Missão, Piauh, 1; Goyáz, 5; Sapitiba, Rio de Janeiro, 1; Rio Paraná, São Paulo, 1; Ypanema, São Paulo, 1; Chapada, Matto Grosso, 6.—Paraguay: Villa Rica, 1; Cambyretá, 1.—Argentina: Concepción, Misiones, 1; Santa Ana, Misiones, 1; Ocampo, Chaco, 2; La Rioja, 2; Tucumán, 3; Metan, Salta, 2.—Bolivia: Guarayos, 3; Santa Cruz, 1; unspecified, 3.

- Sclater and Hudson, Arg. Orn., 1, p. 37, 1888—Concepción and Catamarca, Argentina; Kerr, Ibis, 1892, p. 124—Puerto Vermejo, Chaco; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 5, 1897—Aguairenda, Bolivian Chaco; Ihering, Rev. Mus. Paul., 3, p. 144, 1899—Piracicaba, São Paulo; idem, l.c., 4, p. 152, 1900—Cantagallo, Rio; Kerr, Ibis, 1901, p. 223—Paraguayan Chaco; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 175, 1902—Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Salta, Rio Vermejo; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—Tucumán; Grant, Ibis, 1911, p. 92—Curuzú Chica, Paraguay.
- Acroleptes violaceicollis* Cabanis, Journ. Orn., 13, p. 409, 1865—Brazil (descr. of male; type in Berlin Museum); idem, l.c., 22, p. 83, 1874—Cantagallo, Rio de Janeiro.
- Euphonia (Acroleptes) violaceicollis* Cabanis, Journ. Orn., 26, p. 195, 1878—Sierra de Córdoba (crit.).
- Euphonia chlorotica serrirostris* Berlepsch, Journ. Orn., 35, p. 6, 1887—Lambaré, Paraguay (crit.); Bertoni, Anal. Cient. Parag., 1, No. 3, p. 3, 1904—Alto Paraná, Paraguay (nesting habits); Hartert and Venturi, Nov. Zool., 16, p. 170, 1909—Tucumán and Salta; Hellmayr, l.c., 30, p. 232, 1923—Guarayos (crit., note on types).
- Euphonia chlorotica violaceicollis* Allen, Bull. Amer. Mus. N. H., 3, p. 350, 1891—Chapada, Matto Grosso; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—Bahia (Boca da Ipueiro and Santa Rita, Rio Grande) and Piauhy (Parnaguá and Lagõa Missão); Hellmayr, Nov. Zool., 15, p. 26, 1908—Goyaz, Brazil; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 41, 1926—Ceará.
- Euphonia violaceicollis* Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 4, 1900—Carandasinho, Matto Grosso; Chubb, Ibis, 1910, p. 621—Sapucay, Paraguay.
- Euphonia aurea serrirostris* Ihering, Cat. Faun. Braz., 1, p. 346, 1907—Avanhandava, São Paulo; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 373, 1910 (range in Argentina); Bertoni, Faun. Parag., p. 62, 1914—Paraguay (Alto Paraná, Asunción); idem, El Hornero, 1, p. 285, 1919—Puerto Bertoni, Paraguay (nest descr.); Ménégau, Rev. Franç. d'Orn., 11, p. 7, 1919—Villa Lutetia, near San Ignacio, Misiones.
- Euphonia chlorotica* subsp. Hartert and Venturi, Nov. Zool., 16, p. 170, 1909—San Vicente, Chaco.
- Euphonia aurea violaceicollis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, Berlin, pp. 1014, 1124, 1912—Brazil (Goyáz and Bahia to São Paulo<sup>1</sup>); Dabbene, Anal. Mus. Nac. Buenos Aires, 23, p. 350, 1912—Villa Rica, Paraguay; Ménégau, Rev. Franç. d'Orn., 9, p. 87, 1917—Poconé, Matto Grosso; Hellmayr, Nov. Zool., 30, p. 233, 1923—Brazil (crit.); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 186, 1925—part, Bahia and Piauhy.
- Tanagra chlorotica serrirostris* Smyth and Serié, El Hornero, 3, p. 52, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 68, 1923—La Rioja.

<sup>1</sup> Berlepsch also cites "Rio Purús," whence I cannot find any published record. The localities "Rio Juruá" and "Rio Madeira" belong to *T. x. xanthogaster*.



*Tanagra chlorotica violaceicollis* Wetmore, Bull. U. S. Nat. Mus., 133, p. 391, 1926—Las Palmas, Chaco; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 278, 1929—part, Piauhy (Ibiapaba, Parnaguá, Lagõa Missão) and Ceará (Varzea Formosa; Juá, near Iguatú; Serra de Baturité) (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 368, 1930—Paraguay (Trinidad) and Matto Grosso (Descalvados, Agua Blanca de Corumbá); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 266, 1930—Argentina (Lapango, Terr. Formosa) and Bolivia (Villa Montes, Tarija).

*Range*.—The greater part of eastern Brazil, from Piauhy and Ceará south to São Paulo, west to Matto Grosso; Paraguay; northern Argentina south to Entre Ríos, Santa Fé, Córdoba, and La Rioja; eastern Bolivia.

34: Brazil (Ibiapaba, Piauhy, 2; Varzea Formosa, Ceará, 1; Juá, near Iguatú, Ceará, 1; Serra de Baturité, Ceará, 2; Rio do Peixe, Queimadas, Bahia, 1; Rio das Velhas, near Lagõa Santa, Minas Geraes, 3; Baurú, São Paulo, 1; Chapada, Matto Grosso, 4); Argentina (Caragatay, Misiones, 1; Rio Iguassú, Misiones, 7; Los Vasquez, Tucumán, 1; Concepción, Tucumán, 6); Bolivia (Buena-vista, 3; Santa Cruz, 1).

\**Tanagra chlorotica taczanowskii* (Sclater).<sup>1</sup> TACZANOWSKI'S  
EUPHONIA.

[*Euphonia chlorotica*] subsp. *taczanowskii* Sclater, Cat. Bds. Brit. Mus., 11, p. 65, 1886—Callacate, Peru (type in British Museum).

*Acroleptes serrirostris* (not *Euphonia serrirostris* Lafresnaye and d'Orbigny) Cabanis, Journ. Orn., 13, p. 409, 1865—Peru (crit.).

*Euphonia serrirostris* Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 194—Callacate, Peru; idem, Orn. Pér., 2, p. 440, 1884—Guajango (Marañón) and Callacate, Peru.

*Euphonia chlorotica serrirostris* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 339—La Merced, Chanchamayo, Peru.

*Euphonia minuta* (not of Cabanis) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 226—Tambillo, Peru.

*Euphonia chlorotica* (not *Tanagra chlorotica* Linnaeus) Berlepsch, Journ. Orn., 37, p. 295, 1889—Tarapoto, lower Huallaga, Peru (crit.).

<sup>1</sup> *Tanagra chlorotica taczanowskii* (Sclater): Differs in the male sex from the other races by more purplish upper parts, the rump and tail coverts being but slightly more bluish than the back, and by decidedly paler yellow forehead and under parts; female not distinguishable. Wing (males), 57–59; tail, 34–36.

While two males from Callacate, like ours from Moyobamba, are distinctly paler yellow on forehead and under parts than even the pale-bellied examples from Argentina, one from Tarapoto, lower Huallaga, can be matched by numerous individuals from various parts of Brazil. The purplish color of the dorsal surface, which involves even the rump and tail coverts, serves, however, to separate the Peruvian males from the allied races.

*Additional material examined*.—Peru: Callacate, 3; Tarapoto, 1; Juanfué, upper Huallaga, 1.

*Euphonia taczanowskii* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1014, 1125, 1912—Peru (Callacate, Tambillo, Guajango, Tarapoto, La Merced) (crit.).

*Tanagra taczanowskii* Bangs and Noble, Auk, 35, p. 459, 1918—Perico and Bellavista, Rio Marañón, Peru.

*Range*.—Tropical zone of northern Peru, from the upper Marañón south to Junín (Chanchamayo Valley).

3: Peru (Moyobamba, 2; Chanchamayo, 1).

**\*Tanagra concinna finschi** (Sclater and Salvin).<sup>1</sup> FINSCH'S EUPHONIA.

*Euphonia finschi* Sclater and Salvin, Proc. Zool. Soc. Lond., 1877, p. 19—Demerara, British Guiana (descr. of male; type in coll. of P. L. Sclater, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 70, pl. 8, fig. 1, 1886—Demerara; Penard and Penard, Vog. Guyana, 2, p. 419, 1910—Surinam; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1015, 1912—British Guiana and northern Brazil (Rio Branco).

*Tanagra finschi* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 86, 1918—vicinity of Paramaribo, Surinam; Chubb, Bds. Brit. Guiana, 2, p. 495, 1921—Takutu Mountains and Rupununi River; Chapman, Bull. Amer. Mus. N. H., 63, p. 127, 1931—Arabupu, Roraima.

*Euphonia concinna* (not of Sclater) Pelzeln, Orn. Bras., 3, p. 203, 1870—Forte do Rio Branco, Brazil (spec. in Vienna Museum examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 69, 1886—part, spec. n, Cayenne; Ihering, Cat. Faun. Braz., 1, p. 347, 1907—part, Rio Branco.

*Range*.—French, Dutch, and British Guiana, and the adjoining parts of Venezuela (Roraima) and Brazil (upper Rio Branco).

4: Dutch Guiana (Paramaribo, 1); Brazil (Serra da Lua, near Bõa Vista, Rio Branco, 3).

**\*Tanagra concinna concinna** (Sclater). YELLOW-FRONTED EUPHONIA.

*Euphonia concinna* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 98, pl. 65, fig. 2 (=male), pub. April, 1855—Nova Grenada—"Bogotá" (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 23, p. 159, 1855—"Bogotá"; idem, l.c., 24, p. 275, 1856—"Bogotá" (monog.); idem, Cat. Coll. Amer. Bds., p. 57, 1862—"Bogotá"; idem, Cat. Bds. Brit. Mus., 11,

<sup>1</sup> *Tanagra concinna finschi* (Sclater and Salvin): Closely similar to *T. c. concinna*, but adult male with frontal cap slightly more extended and deeper in tone, cadmium yellow to deep chrome instead of lemon chrome; upper parts more purplish; lower parts much darker, abdomen and under tail coverts mars yellow; female with hind crown and nape less grayish; cheeks and auriculars olivaceous instead of grayish; forehead and under parts generally somewhat duller yellow. Under tail coverts decidedly longer.

Specimens from the Rio Branco agree with others from Guiana.

*Additional material examined*.—French Guiana: "Cayenne," 2.—British Guiana: Quonga, 1; unspecified, 2.—Brazil: Forte do São Joaquim, Rio Branco, 5.

p. 69, pl. 7 (male, female), 1886—part, spec. a-m, "Bogotá"; Ihering, Cat. Faun. Braz., 1, p. 347, 1907—part, Colombia ("Bogotá"); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1015, 1912—Colombia ("Bogotá").

*Tanagra concinna* Chapman, Bull. Amer. Mus. N. H., 36, p. 589, 1917—near Honda, Magdalena Valley, Colombia.

*Range*.—Tropical zone of eastern Colombia (near Honda, Magdalena Valley; common in native "Bogotá" collections).<sup>1</sup>

2: Colombia ("Bogotá," 2).

***Tanagra concinna saturata* (Cabanis).<sup>2</sup> ORANGE-CROWNED EUPHONIA.**

*Phonasca saturata* Cabanis, Journ. Orn., 8, p. 336, 1860—"New Granada" (type, collected by J. Warszewicz, in Berlin Museum).

*Acroleptes saturatus* Cabanis, Journ. Orn., 13, p. 407, 1865—Babahoyo, Ecuador (crit.).

*Euphonia saturata* Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 744—Tumbez, Peru; idem, Orn. Pér., 2, p. 443, 1884—Tumbez; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 288—Surupata, Ecuador; idem, l.c., 1885, p. 76—Yaguachi, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 70, pl. 8, fig. 2 (=male), 1886—Ecuador (Balzar) and Peru (Tumbez); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 14, 1899—Vinces and Balzar, Ecuador; Goodfellow, Ibis, 1901, p. 459—"Archidona," Ecuador, errore (spec. examined); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1015, 1126, 1912—western Colombia (Jiménez Cauca), Ecuador (Balzar, Yaguachi, Surupata, Guayaquil), and Peru (Tumbez) (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 83, 1922—road to Nanegal, Ecuador.

*Euphonia xanthogastra*(?) (not *Euphonia xanthogaster* Sundevall) Sclater, Proc. Zool. Soc. Lond., 28, p. 275, 1860—Babahoyo, Ecuador.

*Tanagra saturata* Chapman, Bull. Amer. Mus. N. H., 36, p. 590, 1917—Caldas and Cali, Colombia (crit.); idem, l.c., 55, p. 651, 1926—Ecuador (Esmeraldas, Manaví, Chongoncito, Santa Rosa, Rio Pindo, Cebollal,

<sup>1</sup> Additional material examined.—Colombia: "Bogotá," 22.

<sup>2</sup> *Tanagra concinna saturata* (Cabanis): Nearest to, and agreeing with, *T. c. finschi* in intense coloration of crown and under parts, but yellow cap extended over the whole pileum; female similar on the upper parts to *T. c. finschi*, but sides of head not quite so olivaceous (though not so conspicuously grayish as in *T. c. concinna*), and under surface markedly duller yellowish. Under tail coverts as long as in *T. c. finschi*.

The presence of a small white spot on the inner web of the outermost rectrix is a purely individual character. I find it in three (out of twelve) Ecuadorian and in one (out of five) Colombian examples. It also occurs occasionally in "Bogotá" skins of *T. c. concinna*, but I have never noticed it in the allied *T. c. finschi*. Two males collected by Goodfellow at "Archidona" do not differ in the least from western specimens. The labeling is probably erroneous, the occurrence of the species on the eastern slope of the Andes in Ecuador being open to serious doubt.

*Material examined*.—Colombia: Jiménez (alt. 1,600 ft.), 1; Cauca, 1; Cali, 1; Caldas, 2.—Ecuador: Vinces, 12; Balzar, 8; unspecified, 4; "Archidona," 2.—Peru: Tumbez, 2.

Pullango) and Peru (Milagros); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 235, 1932—La Palma, Ecuador.

*Range*.—Tropical zone of western Colombia (Jiménez; Caldas; Cali, Rio Cauca), western Ecuador, and extreme northwestern Peru (Tumbez; Milagros).

\**Tanagra melanura* (Sclater).<sup>1</sup> BLACK-TAILED EUPHONIA.

*Euphonia melanura* Sclater, Contrib. Orn., 1851, p. 86—"Barra do Rio Negro" [= Manáos], Brazil (type in coll. of Sclater, now in British Museum, examined); idem, Proc. Zool. Soc. Lond., 23, p. 159, 1855—"Bogotá," Colombia; idem, l.c., 24, p. 278, 1856—Barra do Rio Negro and "Bogotá" (monog.); idem, Cat. Coll. Amer. Bds., p. 59, 1862—same localities; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 179—upper and lower Ucayali, Peru (crit.); idem, l.c., 1867, p. 977—Pebas, Peru; idem, l.c., 1873, p. 260—Ucayali and Pebas, Peru; Taczanowski, Orn. Pér., 2, p. 447, 1884—Peru (Iquitos, Ucayali, Pebas); Sclater, Cat. Bds. Brit. Mus., 11, p. 78, pl. 9, 1886—part, spec. a-i, k, l, Brazil (Barra do Rio Negro), Peru (Iquitos, Pebas, Sarayacu), and Colombia ("Bogotá");<sup>2</sup> Berlepsch, Journ. Orn., 37, p. 296, 1889—Sarayacu (Ucayali) and Tarapoto (Hualлага), Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Rio Zamora, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 18, 1902—Maipures, Rio Orinoco, Venezuela; Ihering, Cat. Faun. Braz., 1, p. 348, 1907 (range); Hellmayr, Nov. Zool., 14, p. 347, 1907—Borba, Rio Madeira; Snethlage, Journ. Orn., 56, p. 9, 1908—Monte Verde, Rio Purús; Hellmayr, Nov. Zool., 17, p. 272, 1910—Borba; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1020, 1912 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 440, 1914—Monte Verde, Rio Purús.

*Tanagra melanura* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 171, 1916—Maipures, Rio Orinoco; Chapman, Bull. Amer. Mus. N. H., 36, p. 591, 1917—Florencia, Caquetá, Colombia; idem, l.c., 55, p. 652, 1926—Napo and Zamora, Ecuador.

<sup>1</sup> *Tanagra melanura* (Sclater) is very nearly related to *T. laniirostris*, but differs by its entirely black tail, lighter (less orange) yellow color of the under parts and of the slightly more restricted frontal cap, and the presence of a well-developed black margin to the gonydeal angle in the male sex. The female is only distinguishable by its duskier lateral rectrices without trace of a pale inner margin.

The supposed divergency in the shape of the tail (even in *melanura*, emarginate in *laniirostris*) does not seem to exist. Considering the similarity of the females, and the intermediate characters of *T. l. zopholega*, I can hardly believe that this bird is more than subspecifically distinct, but unless the black-tailed Borba male (with deep yellow crown and under parts) be an individual mutant of *laniirostris*, the ranges of the two "species" would seem to overlap on the Rio Madeira.

The type differs from all other specimens examined by slightly smaller size, markedly shorter bill, and lesser extent of the yellow cap; but as birds from "Bogotá" and Maipures and others from Peru are identical among themselves, this can hardly be more than an individual variation. The locality "Barra do Rio Negro" is perhaps a little doubtful.

*Additional material examined*.—Colombia: "Bogotá," 8.—Ecuador: Rio Zamora, 1.—Peru: Iquitos, 7; Pebas, 4; Ucayali, 2.—Venezuela: Maipures, Rio Orinoco, 2.—Brazil: Borba, Rio Madeira, 2.

<sup>2</sup> Spec. j, Maranura, Peru, pertains to *T. l. zopholega*, the female from Demerara (spec. m) to some other species, probably *T. v. violacea*.



*Range*.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia (Florenca, Caquetá) and the upper stretches of the Orinoco (Maipures) south through eastern Ecuador to north-eastern Peru (Pebas; Iquitos; Tarapoto and Moyobamba, Huallaga River; Sarayacu, Rio Ucayali), and east to western Brazil (Monte Verde, Rio Purús; Borba, Rio Madeira).<sup>1</sup>

8: Colombia ("Bogotá," 1); Peru (Moyobamba, 7).

\**Tanagra laniirostris laniirostris* (Lafresnaye and d'Orbigny).  
SHRIKE-BILLED EUPHONIA.

*Euphonia laniirostris* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 30, 1837—Yuracares, Bolivia (descr. of male and female; types in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 266, pl. 22, fig. 1 (=male), 1839—Yungas, Santa Cruz de la Sierra, Yuracares, and Guarayos, Bolivia; Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—Bolivia (ex d'Orbigny); Sclater, Contrib. Orn., 1851, p. 86—part, Bolivia (d'Orbigny's localities); idem, Proc. Zool. Soc. Lond., 24, p. 277, 1856—Bolivia (monog.); Sclater and Salvin, l.c., 1879, p. 598—Bolivia (d'Orbigny's localities); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 262, 1883—part, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 76, 1886—part, Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 81, 1889—Falls of the Rio Madeira, Bolivia (crit.); idem, l.c., 3, p. 351, 1891—Abrilongo and Chapada, Matto Grosso (crit.); Ihering, Cat. Faun. Braz., 1, p. 348, 1907—part, Bolivia and Matto Grosso; Hellmayr, Nov. Zool., 14, p. 347, 1907—Humaytá, Rio Madeira; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1019, 1912—Bolivia (Yuracares, Guarayos, Santa Cruz, Ormeja, Songo, Suapi, Espirito Santo) and Brazil (Calama, Humaytá, Villa Maria, São Vicente, Villa Bella de Matto Grosso); Sneath-lage, Bol. Mus. Goeldi, 8, p. 440, 1914 (range).

*Euphonia laniirostris* Pelzeln, Orn. Bras., 3, p. 204, 1870—Villa Maria, Villa Bella de Matto Grosso, and São Vicente, Matto Grosso (spec. examined).

*Euphonia laniirostris laniirostris* Hellmayr, Nov. Zool., 17, p. 272, 1910—Calama, Jamarysinho, and Maroins (Rio Machados), Rio Madeira (crit.); idem, l.c., 30, p. 230, 1923—Yuracares and Guarayos (note on types).

*Tangara laniirostris laniirostris* Naumburg, Bull. Amer. Mus. N. H., 60, p. 369, 1930—Tapirapoan, Matto Grosso.

*Range*.—Eastern Bolivia and the adjacent parts of western Brazil in Matto Grosso, north to the upper Rio Madeira and its tributaries (Humaytá; Calama; Jamarysinho; Maroins, Rio Machados).<sup>2</sup>

<sup>1</sup> Messrs. Penard (Vog. Guyana, 2, p. 426, 1910) are certainly mistaken in including this species in the fauna of Dutch Guiana, and Beebe's record (Zoologica, N.Y., 1, p. 102, 1909) from Guanoco, Orinoco Delta, based on a mangled female example, cannot be accepted either.

<sup>2</sup> Specimens from Matto Grosso agree well with those from Bolivia. There is generally a suggestion of a blackish border to the gonydeal angle, though this marking is never so "solid" as in *melanura*. Only the outermost rectrix shows an

4: Bolivia (Buenavista, Santa Cruz, 1); Brazil (Chapada, Matto Grosso, 3).

**Tanagra laniirostris zopholega** Oberholser.<sup>1</sup> PERUVIAN SHRIKE-BILLED EUPHONIA.

*Euphonia laniirostris peruviana* (not *Tanagra peruviana* Desmarest, 1806) Berlepsch and Stolzmann, *Ornis*, 13, p. 77, 1906—La Merced, Dept. Junín, and Santa Ana, Urubamba, Peru (type, from La Merced, in Branicke Collection, now in Warsaw Museum; cf. Sztolcman and Domaniewski, *Ann. Zool. Mus. Pol. Hist. Nat.*, 6, p. 181, 1927); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1020, 1912—Peru (La Merced, Santa Ana).

*Tanagra laniirostris zopholega* Oberholser, *Proc. Biol. Soc. Wash.*, 31, p. 126, 1918—new name for *Euphonia laniirostris peruviana* Berlepsch and Stolzmann, preoccupied.

*Euphonia laniirostris* (not of Lafresnaye and d'Orbigny) Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 76, 1886—part, spec. h', Maranura, Peru; Berlepsch and Stolzmann, *Proc. Zool. Soc. Lond.*, 1896, p. 339—La Merced, Chanchamayo, Peru.

*Range*.—Tropical zone of central-eastern Peru, in depts. of Junín (La Merced, Chanchamayo) and Cuzco (Maranura and Santa Ana, Urubamba).

**Tanagra laniirostris hypoxantha** (Berlepsch and Taczanowski).<sup>2</sup> PALE-BELLIED EUPHONIA.

*Euphonia hypoxantha* (Stolzmann MS.) Berlepsch and Taczanowski, *Proc. Zool. Soc. Lond.*, 1883, p. 544—Chimbo, Ecuador (type in Warsaw Mu-

extensive white patch on the inner web, but one male from Villa Bella de Matto Grosso and the type from Yuracares have a smaller white spot also on the penultimate tail feather. It is somewhat significant that the white tail spot is smallest in a bird from Humaytá, left bank of the Rio Madeira, in a region that adjoins the distributional area of *T. melanura*.

*Additional material examined*.—Bolivia: Yuracares, 1; Guarayos, 2; Omeja, 1; Espiritu Santo, 1.—Brazil, Matto Grosso: São Vicente, 1; Villa Maria, 1; Villa Bella, 1; Rio Madeira, Humaytá, 1; Calama, 4; Maroins, Rio Machados, 2.

<sup>1</sup>*Tanagra laniirostris zopholega* Oberholser: Very similar to *T. l. laniirostris*, but with slightly longer wings and markedly larger bill; yellow frontal cap of males less extended posteriorly (not more, as stated by the describers) and together with the under parts somewhat paler (more like *melanura*); black gonydeal margin more pronounced. Wing (males), 66–68; tail, 38–40; bill, 10–11.

The white spot on the inner web of the outermost rectrix has about the same extent as in *laniirostris*, while the penultimate tail feather is black, at best with a faint suggestion of a small whitish dot. Excepting the tail markings, this form betrays an undeniable tendency in the direction of *T. melanura*, and casts serious doubts on the specific distinctness of the Black-tailed Euphonia.

*Material examined*.—Peru: La Merced, Chanchamayo, 2; Santa Ana, Urubamba, 3.

<sup>2</sup>*Tanagra laniirostris hypoxantha* (Berlepsch and Taczanowski): Similar to *T. l. crassirostris*, but adult male with yellow cap extended to the nape; upper parts much more violaceous; yellow of crown and under parts decidedly paler; female not distinguishable with certainty.

*Material examined*.—Ecuador: Chimbo, 5; Rio Peripa, 1; Punta Santa Ana, 3.



seum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 181, 1927; Taczanowski, Orn. Pér., 2, p. 445, 1884—Peru (Lechugal, Paucal); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 77—Yaguachi, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 77, 1886—Ecuador (Chimbo, Babahoyo, Santa Rita) and Peru; Hartert, Nov. Zool., 5, p. 481, 1898—Chimbo; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Rio Peripa, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1019, 1912 (range).

*Euphonia crassirostris* (not of Sclater, 1857) Sclater, Proc. Zool. Soc. Lond., 28, p. 275, 1860—Babahoyo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 58, 1862—part, spec. e, Babahoyo; Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 277—Lechugal, Tumbes, Peru; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 28, 1902—part, western Ecuador and Peru.

*Tanagra hypoxantha* Chapman, Bull. Amer. Mus. N. H., 55, p. 652, 1926—Ecuador (Esmeraldas, Chone, Chongocito, Rio de Oro, Bucay, Rio Jubones, Santa Rosa, Portovelo, Punta Santa Ana, Casanga, Rio Pindo, Salvias, Lunamá, Guainche, Las Piñas, Cebollal, Alamor) and Peru (Paletillas, Palambla).

*Range.*—Tropical zone of western Ecuador and northwestern Peru, south to Paucal.

\**Tanagra lanirostris crassirostris* (Sclater). THICK-BILLED EUPHONIA.

*Euphonia crassirostris* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 277, pub. Jan., 1857—"New Grenada, Bogotá" (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 25, p. 19, 1857—"Bogotá"; idem, Cat. Coll. Amer. Bds., p. 58, 1862—part, spec. a-d, "Bogotá" and Caracas, Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 349—Panama Railroad; Salvin, l.c., 1867, p. 138—David, Panama; idem, l.c., 1870, p. 186—Veraguas (Chitrá, Boquete de Chitrá, Calovévora); Wyatt, Ibis, 1871, p. 324—Cucuta Valley and Bucaramanga, Colombia; Boucard, Proc. Zool. Soc. Lond., 1878, p. 54—Cartago, Costa Rica; Berlepsch, Journ. Orn., 32, p. 289, 1884—Bucaramanga, Colombia (crit.); idem, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá"; Robinson, Flying Trip to Tropics, p. 161, 1895—Magdalena River, Colombia; Phelps, Auk, 14, p. 364, 1897—Cumanacoa, San Antonio, and Caripé, Monagas, northeastern Venezuela; Bangs, Proc. Biol. Soc. Wash., 12, pp. 141, 179, 1898—Santa Marta and Palomina, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 170, 1900—Bonda, Onaca, Minca, and Cacaualito, Colombia (crit.); Bangs, Proc. New Engl. Zool. Cl., 2, p. 28, 1900—Loma del León, Panama; idem, Auk, 18, p. 369, 1901—Divalá, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 64, 1902—Boquete, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 28, 1902—part, Costa Rica to Colombia and Venezuela (monog.); Bangs, Auk, 24, p. 308, 1907—[Boruca], Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 867,

<sup>1</sup> In the Cat. Bds. Brit. Mus., 11, p. 77, a specimen from Santa Marta is erroneously listed as type.

- 1910—Costa Rica (Coralillo and Boruca); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1019, 1912—Colombia ("Bogotá," Bucaramanga).
- Phonasca brachyptera* Cabanis, Journ. Orn., 13, p. 410, 1865—"Caracas (Porto Cabello)" (descr. of young male and female; types in Berlin Museum).
- Euphonia lanirostris* (not of Lafresnaye and d'Orbigny) Sclater, Contrib. Orn., 1851, p. 86—part, Chiriquí; Salvin and Godman, Ibis, 1879, p. 199—Atanquez, Colombia (crit.); idem, Ibis, 1880, p. 119—Santa Marta, Minca, and Atanquez, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 262, 1883—part, Costa Rica (Angostura), Panama, and Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 76, 1886—part, spec. a-g', Costa Rica (Angostura), Veraguas (Santa Fé, Calovévora, Chitrá, Cordillera de Tolé), Chiriquí, Panama (railroad line, Paraiso Station), Colombia (Minca, Santa Marta, Atanquez, "Bogotá"), and Venezuela (San Esteban, Caracas).
- Euphonia hirundinacea* (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 22, p. 98, 1854—part, Chiriquí and Nova Grenada; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298, 1861—Panama Railroad.
- Euphonia crassirostris*(?) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 175, 1865—Davíd, Chiriquí (crit.).
- Euphonia* sp.(?) Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Cordillera de Tolé, Veraguas.
- Euphonia crassirostris brachyptera* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1019, 1128, 1912—Costa Rica to Colombia and Venezuela (crit.).
- Euphonia violacea* (not *Fringilla violacea* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—San Esteban, Venezuela.
- Euphonia lanirostris crassirostris* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 164, 1912—San Esteban, Venezuela.
- Tanagra crassirostris crassirostris* Chapman, Bull. Amer. Mus. N. H., 36, p. 591, 1917—Colombia (Puerto Valdivia, La Manuelita, Cauca Valley, Puerto Berrio, Honda, El Consuelo, and Chicoral; crit.); Griscom, Bull. Mus. Comp. Zool., 72, p. 370, 1932—Permé and Obaldia, Darien, Panama.
- Tanagra crassirostris* Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 277, 1918—Gatún, Mindi, Toro Point, and Mount Hope, Panama; Todd and Carriker, Ann. Carnegie Mus., 14, p. 496, 1922—La Concepción, Chirua, Fundación, Bonda, Minca, Cacagualito, Mamatoco, Cincinnati, La Tigra, and Don Diego, Santa Marta region, Colombia (crit.); Darlington, Bull. Mus. Comp. Zool., 71, p. 418, 1931—Rio Frio, Magdalena, Colombia.

*Range.*—Tropical zone of Costa Rica (four or five records), Panama, Colombia (Santa Marta region; Cauca and Magdalena valleys), and northern Venezuela (from Táchira and Zulia east to Monagas).<sup>1</sup>

<sup>1</sup> Birds from the Cauca and Magdalena valleys ("Bogotá") are on average larger (wing of adult males, 62–67 against 59–63), but, contrary to Berlepsch's statement, they do not constantly differ in the gloss of the upper parts from a

12: Panama (Colón, 1); Colombia (Fundación, 1; "Bogotá," 2); Venezuela (Colón, Táchira, 1; La Azulita, Mérida, 1; El Escorial, Mérida, 1; Orope, Zulía, 2; Catatumbo River, Zulía, 2; La Ceiba, Trujillo, 1).

\**Tanagra lauta*<sup>1</sup> *lauta* Bangs and Penard. BONAPARTE'S  
EUPHONIA.

*Euphonia hirundinacea* (not *Tanagra hirundinacea* Lesson, 1831) Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 117, pub. June, 1838—Guatemala (descr. of young male; type in coll. of Velasquez de León, subsequently in Derby Collection [now in Liverpool Museum]; cf. Sclater, Proc. Zool. Soc. Lond., 22, p. 98, 1854); Sclater, Proc. Zool. Soc. Lond., 22, p. 98, pl. 65, fig. 1 (adult male), 1854 [=April, 1855]—part, Guatemala (descr.); idem, l.c., 24, p. 278, 1856—Guatemala and Córdova, Mexico (monog.); idem, l.c., p. 303, 1856—Córdova, Vera Cruz; idem, l.c., 27, pp. 364, 378, 1859—vicinity of Jalapa, Vera Cruz, and Playa Vicente, Oaxaca, Mexico; Sclater and Salvin, Ibis, 1859, p. 16—Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 59, 1862—Guatemala (Coban, Vera Paz), "New Granada," and Mexico; Sumichrast, Mem. Boston Soc. Nat. Hist., 1, p. 550, 1869—hot region of Vera Cruz; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—Honduras; Lawrence, Bull. U. S. Nat. Mus., 2, p. 18, 1876—Guichicovi, Oaxaca; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 42, 1878—Guatemala; Salvin, Cat. Strickl. Coll., p. 180, 1882—Guatemala; Boucard, Proc. Zool. Soc. Lond., 1883, p. 443—Chablé, Izalam, and Tizimin, Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 261, 1883—part, Mexico to Nicaragua; Sclater, Cat. Bds. Brit. Mus., 11, p. 75, 1886—Mexico (Orizaba, Yucatan) to Honduras (San Pedro); Richmond, Proc. U. S. Nat. Mus., 16, p. 488, 1893—Rio Escondido, Nicaragua; idem, l.c., 18, p. 631, 1896—Altamira, Tamaulipas; Chapman, Bull. Amer. Mus. N. H., 8, p. 279, 1896—Chichen Itzá, Yucatan; Lantz, Trans. Kans. Acad. Sci., 16, p. 223, 1899—Rinconada, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 25, 1902—part, Mexico to Nicaragua (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 142, 1906—Chichen Itzá, Yucatan; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 121, 1907—Mazatenango, Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1019, 1912—Mexico to Nicaragua; Peters, Auk, 30, p. 379, 1913—Camp Mengel, Quintana Roo.

*Tanagra lauta lauta* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 35, 1919—new name for *Euphonia hirundinacea* Bonaparte, preoccupied;

series of Venezuelan and Panama examples. The slight variation in size appears to me altogether insufficient grounds for maintaining the race *brachyptera*.

*Additional material examined*.—Panama: Lion Hill, 6.—Colombia: Mamatoco, 2; Bonda, 6; Barranquilla, 1; Rio Cauquetá, Cauca, 2; Cauca Valley, 3; Bucaramanga, 2; "Bogotá," 14.—Venezuela: Mérida, 6; mountains inland of Cumaná (San Antonio, Cumanacoa, etc.), 10.

<sup>1</sup> I should have been inclined to consider Bonaparte's *Euphonia* conspecific with *T. lanirostris* were it not for the fact that races of both, *T. lauta gnatho* and *T. lanirostris crassirostris*, have been reported to occur in extreme western Panama (Chiriquí) and eastern Costa Rica.

Griscom, Bull. Amer. Mus. N. H., 64, p. 373, 1932—Guatemala (Finca Chamá, Finca Cipres, and San Felipe) (crit.).

*Euphonia* sp. Sclater, Proc. Zool. Soc. Lond., 24, p. 303, 1856—Córdova, Vera Cruz (descr. of female).

*Tanagra hirundinacea* Austin, Bull. Mus. Comp. Zool., 69, p. 391, 1929—Camp Six and Mountain Cow, British Honduras; Peters, l.c., p. 469, 1929—Progreso and Tela, Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 337, 1932—Cantarranas, Honduras.

*Range*.—Southeastern Mexico (in states of Tamaulipas, Vera Cruz, Tabasco, Oaxaca, Yucatan, and Quintana Roo) south through British Honduras, Guatemala, and Honduras to eastern Nicaragua.

11: Mexico ("Mexico City," 1; Tampico, 1; Teapa, Tabasco, 3); Guatemala (Mazatenango, 3; San Felipe, Retalhuleu, 2; unspecified, 1).

\**Tanagra lauta proba* Bangs and Penard.<sup>1</sup> THICK-BILLED EUPHONIA.

*Phonasca gnatho* (not *Tanagra gnatho* Lichtenstein, 1830) Cabanis, Journ. Orn., 8, p. 335, 1860—Costa Rica (descr. of adult male; type in Berlin Museum).

*Tanagra lauta proba* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 35, 1919—new name for *Phonasca gnatho* Cabanis, preoccupied.

*Phonasca hirundinacea* (not *Euphonia hirundinacea* Bonaparte) Cabanis, Journ. Orn., 8, p. 334, 1860—Costa Rica (young male).

*Euphonia hirundinacea* Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 172—Turrialba, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Turrialba and San Juan, Costa Rica; Frantzius, Journ. Orn., 17, p. 297, 1869—San José, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 261, 1883—part, Costa Rica (Turrialba, San Juan); Sclater, Cat. Bds. Brit. Mus., 11, p. 75, 1886—part, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (San José, Naránjo de Cartago, Monte Redondo de San José); Cherrie, Auk, 9, p. 24, 1892—San José and Pacific side of Costa Rica (nest and eggs); Underwood, Ibis, 1896, p. 435—Miravalles, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 64, 1902—Boquete, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 25, 1902—part, Costa Rica.

*Euphonia gnatho* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (ex Cabanis); Frantzius, Journ. Orn., 17, p. 297, 1869—San José;

<sup>1</sup>*Tanagra lauta proba* Bangs and Penard differs from the nominate race by larger, more swollen bill; more bottle green, less bluish gloss of the upper parts in the male, and more yellowish under parts in the female sex.

These characters are most strongly pronounced in specimens from the Pacific side of Costa Rica, although a male from San Juan (collected by A. von Frantzius) is also exceedingly typical. My material from the Caribbean side being very inadequate, consisting as it does of only three males, I cannot decide whether it is more correct to refer them to *T. l. lauta*, as Griscom proposes to do, or to call them, with Bangs, *T. l. proba*.



Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 262, 1883—Tempate, Nicoya (crit.); Selater, Cat. Bds. Brit. Mus., 11, p. 76, 1886—Costa Rica (Turrialba, Tempate); Ridgway, Proc. Biol. Soc. Wash., 18, p. 225, 1905—Costa Rica (descr. of female); Bangs, l.c., 22, p. 37, 1909—Costa Rica (crit.).

*Euphonia hirundinacea gnatho* Carriker (and Todd), Ann. Carnegie Mus., 6, p. 867, 1910—Costa Rica (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1019, 1912—Costa Rica and Chiriquí.

*Range*.—Northwestern Nicaragua, Costa Rica, and extreme western Panama (Chiriquí).

3: Nicaragua (San Gerónimo, Chinandega, 1); Costa Rica (Las Cañas, 1; Miravalles, 1).

\**Tanagra violacea violacea* (Linnaeus). VIOLACEOUS EUPHONIA.

*Fringilla violacea* Linnaeus, Syst. Nat., 10th ed., 1, p. 182, 1758—"in calidis regionibus"; Surinam designated as type locality by Berlepsch and Hartert (Nov. Zool., 9, p. 18, 1902)<sup>1</sup> (type in Museum Adolphi Friderici).

*Euphonia violacea* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 670, "1848" [=1849]—British Guiana; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne.

*Euphonia violacea* var. *minor* Lichtenstein, Verz. Doubl. Berlin Mus., p. 29, 1823—Cayana (type in Berlin Museum).

*Parus cyanochlorus* Pallas, in Vroeg, Cat. Rais. Coll. d'Ois., Adumbrat., p. 3, 1764—Surinam (descr. of adult male).

*Euphonia violacea* Selater, Contrib. Orn., 1851, p. 86—part, Trinidad, Cayenne, and British Guiana; idem, Proc. Zool. Soc. Lond., 24, p. 277, 1856—part, same localities (monog.); idem, Cat. Coll. Amer. Bds., p. 58, 1862—part, spec. a, b, g, Cayenne and Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Léotaud, Ois. Trinidad, p. 306, 1866—Trinidad; Salvin, Ibis, 1885, p. 208—British Guiana (Bartica Grove and Roraima); Selater, Cat. Bds. Brit. Mus., 11, p. 74, 1886—part, subsp. *typica*, Trinidad, Cayenne, and British Guiana (Roraima, Bartica Grove); Riker and Chapman, Auk, 7, p. 266, 1890—Santarém, Brazil; Chapman, Bull. Amer. Mus. N. H., 6, p. 28, 1894—Trinidad; Berlepsch and Hartert, Nov. Zool., 9, p. 18, 1902—Suapuré, La Prición, and La Union, Caura, Venezuela; Goeldi, Ibis, 1903, p. 398—Rio Capim, Pará; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 181, 1904—Kourou and Saint Jean du Maroni, French Guiana; Sneath, Journ. Orn., 55, p. 293, 1907—Marajó (Jutahizal), Pará, Santo Antonio do Prata, Rio Capim, Rio Maracaña, and Cussary; idem, l.c., 56, p. 522, 1908—Arumatheua, Rio Tocantins, Brazil; Berlepsch, Nov. Zool., 15, pp. 112, 316, 1908—Cayenne and French Guiana localities; Penard, Vog. Guyana, 2, p. 422, 1910—Surinam (habits); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 100, 1910—Miritiba, Maranhão; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1018, 1127, 1912—Guianas, Trinidad and northern Brazil;<sup>2</sup> Sneath,

<sup>1</sup> Cf. also Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1018, 1127, 1912.

<sup>2</sup> The locality "Teffé" appears to be a pen-slip.



- Bol. Mus. Goeldi, 8, p. 439, 1914—Pará, Providencia, Benevides, Peixe-Boi, Santo Antonio do Prata, Itacuão, Rio Capim (Araproaga), Rio Mojú, Cussary, Rio Tocantins (Ilha Pirunum, Arumatheua), Rio Iriri (Santa Julia), Rio Tapajóz (Boim, Goyana, Ilha do Papageio), Marajó (Pindobal, Chaves), Rio Jary (Santo Antonio da Cachoeira), Rio Jamundá (Faro), and Maranhão; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 60, 1926—Maranhão (Anil, Tury-assú); Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 129, 1922—Port-of-Spain and Maracas, Trinidad (nesting).
- Euphonia violacea* Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—part, Guiana.
- Phonasca Lichtensteinii* Cabanis, Journ. Orn., 8, p. 331, 1860—Cayenne (type in Berlin Museum).
- Euphonia purpurea* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 466, 1867—"South America" (descr. of adult male; type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Solater, Ibis, 1885, p. 272 (crit.; = Cayenne specimens).<sup>1</sup>
- Euphonia lichtensteinii* Pelzeln, Orn. Bras., 3, p. 204, 1870—Pará and Borba, Rio Madeira (spec. examined).
- Euphonia violacea lichtensteinii* Hellmayr, Nov. Zool., 13, p. 14, 1906—Trinidad (Caparo, Pointe Gourde, Valencia, Chaguaramas); idem, l.c., 13, p. 356, 1906—Santo Antonio do Prata, Pará; idem, l.c., 14, p. 6, 1907—Itaitúba, Rio Tapajóz; Ménégaux, Bull. Mus. Hist. Nat. Paris, 14, p. 8, 1908—French Guiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 357, 1908—Carenage and Aripo, Trinidad; Snethlage, Journ. Orn., 56, p. 498, 1908—Rio Tapajóz (Ilha do Papageio, Goyana); Hellmayr, Nov. Zool., 17, p. 272, 1910—Borba, Rio Madeira; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 8, 87, 1912—Peixe-Boi, Pará (Pará localities).
- Tanagra violacea lichtensteinii* Beebe, Zoologica (N.Y.), 2, p. 99, 1916—Utinga, Pará; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Rio Guamá and Castanhal, Pará.
- Tanagra violacea* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 171, 1916—El Llagual, Suapuré, Maripa, and La Union, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 2, p. 498, 1921—British Guiana.
- Tanagra violacea violacea* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 87, 1918—vicinity of Paramaribo, Surinam; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 278, 1929—Maranhão (Tury-assú, Rosario, Tranqueira) and Goyáz (Santo Antonio, Bõa Vista) (crit.).
- Tanagra violacea rodwayi* Penard, Proc. New Engl. Zool. Cl., 7, p. 30, 1919—Mount Roraima, British Guiana (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 399, 1930 (crit.).<sup>2</sup>

<sup>1</sup> Mr. J. T. Zimmer (in litt.) corroborates Sclater's identification with typical *violacea*.

<sup>2</sup> Birds from Roraima, while identical in coloration, average slightly larger (wing of males, 60–63; tail, 32–35), some individuals being hardly inferior in dimensions to the smaller examples of *T. v. aurantiicollis*, but I agree with Bangs that it serves no practical purpose to maintain *T. v. rodwayi*.

*Range*.—Island of Trinidad; northeastern Venezuela (from the Paria Peninsula south to the Orinoco Delta and the Caura Valley); British, Dutch, and French Guiana; northern Brazil, north of the Amazon west to the Rio Jamundá, and south of the river from the lower Rio Madeira (Borba) east to Maranhão.<sup>1</sup>

14: Trinidad (Valencia, 1); Venezuela (Guanoco, Orinoco Delta, 1); British Guiana (Potaro, 1; Mazaruni River, 1); Dutch Guiana (Paramaribo, 1); Brazil (Utinga, Pará, 1; Tury-assú, Maranhão, 4; São Luiz, Maranhão, 1; Rosario, Maranhão, 1; Tranqueira, Maranhão, 1; Santo Antonio, Boa Vista, Goyáz, 1).

\**Tanagra violacea aurantiicollis* (Bertoni).<sup>2</sup> GREATER VIOLACEOUS EUPHONIA.

*Euphonia aurantiicollis* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 94, Jan., 1901—Puerto Bertoni, Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

*Euphonia violacea* (not *Fringilla violacea* Linnaeus) Lichtenstein, Verz. Doubl. Berlin Mus., p. 29, 1823—Brazil; Wied, Beitr. Naturg. Bras., 3, (1), p. 439, 1830—southeastern Brazil; Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—part, Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 195, 1856—Nova Friburgo, Rio.

*Euphonia violacea* Selater, Contrib. Orn., 1851, p. 86—part, Rio de Janeiro; idem, Proc. Zool. Soc. Lond., 24, p. 277, 1856—part, southeastern Brazil; idem, Cat. Coll. Amer. Bds., p. 58, 1862—part, spec. c-f, Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 433—Lagõa Santa, Minas Geraes; Forbes, Ibis, 1881, p. 331—Pernambuco (Recife) and Parahyba; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 117, 1885—Taquara, Rio Grande do Sul; Selater, Cat. Bds. Brit. Mus., 11, p. 74, 1886—part, subsp. "*lichtensteini*," Pernambuco, Bahia, Nova Friburgo, "Rio Claro, Goyáz," São Paulo, and "Pelotas," Rio Grande do Sul; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—Mundo Novo;

<sup>1</sup> *Additional material examined*.—Trinidad, 18.—British Guiana: Roraima, 4; Bartica Grove, 1; Demerara, 6.—Surinam: Paramaribo, 4.—French Guiana: Cayenne, 12; Roche Marie, 1; Approuague, 2.—Venezuela: Guanoco, Orinoco Delta, 3; Caura Valley, 5.—Brazil: Miritiba, Maranhão, 3; Pará region, 12; Borba, Rio Madeira, 2.

<sup>2</sup> *Tanagra violacea aurantiicollis* (Bertoni): Similar to *T. v. violacea*, but larger; adult males with yellow frontal band decidedly wider; hind crown and nape frequently more strongly glossed with violaceous. Wing (adult males), 62–67; tail, 35–41.

A good series from Santa Catharina (thus topotypical *magna*) cannot be distinguished from two Paraguayan examples (*aurantiicollis*). They all have the same large size, and agree in the decidedly violaceous gloss on the hind neck. Birds from São Paulo—no adult males from Rio de Janeiro are available—are similar to those from the south, whereas Bahia skins, by slightly smaller size, form the transition to typical *violacea*, though they are much nearer to *aurantiicollis*.

*Additional material examined*.—Paraguay: Sapucay, 4.—Brazil: Joinville, Santa Catharina, 11; Ypanema, São Paulo, 4; Rio Paraná, São Paulo, 3; Sapitiba, Rio de Janeiro, 1; Bahia, 9.

idem, *Rev. Mus. Paul.*, 3, p. 145, 1899—São Paulo (São Paulo, Piracicaba, Iguapé); idem, *l.c.*, 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; Nicoll, *Ibis*, 1904, p. 40—Bahia; Ihering, *Cat. Faun. Braz.*, 1, p. 347, 1907—São Paulo (Santos, Alto da Serra, Ubatuba, Iguapé, Piracicaba), Espirito Santo (Rio Doce), Bahia, and Rio Grande do Sul (Nova Hamburgo); Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 374, 1910—Paraguay (Alto Paraná); Bertoni, *Anal. Soc. Cient. Arg.*, 75, p. 98, 1913—Misiones; idem, *Faun. Parag.*, p. 62, 1914—Paraguay (Puerto Bertoni and Iguassú).

*Euphonia violacea* Pelzeln, *Orn. Bras.*, 3, p. 204, 1870—Rio de Janeiro (Sapitiba, Registo do Sai) and São Paulo (Ypanema, Rio Paraná).

*Phonasca violacea* Cabanis, *Journ. Orn.*, 22, p. 83, 1874—Cantagallo, Rio.

*Euphonia violacea aurantiicollis* Chubb, *Ibis*, 1910, p. 622—Sapucay, Paraguay (crit.); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1018, 1128, 1912—Paraguay; Bertoni, *El Hornero*, 1, p. 285, 1919—Paraguay (nest descr.).

*Tanagra aurantiicollis* Dabbene, *Bol. Soc. Physis*, 1, p. 361, 1914—Paraguay and Misiones.

*Tanagra violacea aurantiicollis* Pereyra, *El Hornero*, 4, p. 33, 1927—Misiones.

*Euphonia violacea magna* (not *Tanagra magna* Gmelin, 1789) Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1018, 1127, 1912—Blumenau, Santa Catharina (type in coll. of H. von Berlepsch, now in Frankfurt Museum); Lima, *Rev. Mus. Paul.*, 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia.

*Tanagra violacea pampolla* Oberholser, *Proc. Biol. Soc. Wash.*, 31, p. 126, 1918—new name for *Euphonia violacea magna* Berlepsch, preoccupied.

*Range.*—Wooded region of southeastern Brazil, from Parahyba, Pernambuco, Bahia, and southern Minas Geraes (Lagõa Santa) to Rio Grande do Sul, and the adjacent districts of Argentina (Misiones) and Paraguay.

4: Brazil (Joinville, Santa Catharina, 3); Argentina (Iguazú, Misiones, 1).

### *Tanagra catasticta* Oberholser.<sup>1</sup> BLACK-THROATED EUPHONIA.

*Euphonia vittata* (not *Tanagra vittata* Temminck, 1821) Sclater, *Proc. Zool. Soc. Lond.*, 1861, p. 129—Brazil (type in coll. of P. L. Sclater, now in British Museum, examined); idem, *Cat. Coll. Amer. Bds.*, p. 58, 1862—

<sup>1</sup> *Tanagra catasticta* Oberholser, resting upon a single South Brazilian trade-skin, is a very peculiar bird. It generally resembles *T. rufiventris*, but the black gorget is farther extended posteriorly; the feathers of the chest and sides have wide bluish black subterminal bars or spots; the median portion of the under parts is duller, more ochraceous; the forehead back to the anterior edge of the eye is dull yellow, this color being confined to the very tips of the frontal feathers; the inner web of the outermost rectrix is marked with a small white subapical spot. Wing (adult male), 63; tail, 36; bill, 11.

The type is a skin of the unmistakable "Rio" preparation. It is hard to believe that no second specimen should have been obtained in such an easily accessible region as the vicinity of the Brazilian capital, if it were a distinct species. Its color characters are just what might be expected from the result of

Brazil; idem, Cat. Bds. Brit. Mus., 11, p. 80, pl. 10 (male), 1886—Brazil; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1020, 1912—Brazil (Rio de Janeiro?).

*Tanagra catalicta* Oberholser, Proc. Biol. Soc. Wash., 31, p. 125, 1918—new name for *Euphonia vittata* Scater, preoccupied.

*Range*.—Southeastern Brazil (exact locality unknown).

## **Tanagra rufiventris rufiventris** Vieillot. RUFIOUS-BELLIED EUPHONIA.

*Tanagra rufiventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 426, 1819—no locality indicated (type, collected by Sonnerat, in Paris Museum).<sup>1</sup>

*Tanagra chrysogaster* (not of Cuvier, 1829) Lesson, Traité d'Orn., p. 461, 1831—"Amérique" (descr. of male; type probably in Paris Museum).

*Euphonia bicolor* Strickland, Contrib. Orn., 1850, p. 48, pl. 49, fig. 2 (male), 1850—Peru (location of type unknown).

*Euphonia rufiventris* Bonaparte, Rev. Mag. Zool., (2), 3, p. 135, 1851—Brazil (diag.).

*Euphonia rufiventris* Scater, Contrib. Orn., 1851, p. 87—Peru; Cassin, in Gilliss, U. S. Astron. Exped., 2, p. 182, pl. 20, fig. 1 (= male), 1855—Peru; Scater, Proc. Zool. Soc. Lond., 24, p. 279, 1856—Peru (Maynas, Ucayali) and Brazil (Rio Negro, Barcellos, San Carlos); idem, l.c., 26, p. 74, 1858—Rio Napo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 59, 1862—Peruvian Amazon and Rio Napo; Scater and Salvin, Proc. Zool. Soc. Lond., 1867, pp. 749, 977—Xeberos and Pebas, Peru; idem, l.c., 1873, p. 261—Xeberos, Chamicuros, and Pebas, Peru; Taczanowski, Orn. Pér., 2, p. 447, 1884—Peru (Chamicuros, Xeberos, Pebas, Tarapoto); Scater, Cat. Bds. Brit. Mus., 11, p. 79, 1886—Peru (Ucayali, Pebas), Brazil (Ega), Ecuador ("Intaj," Sarayacu), and "Oyapock, Cayenne"; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 339—La Gloria, Chanchamayo, Peru; Goodfellow, Ibis, 1901, p. 459—Coca, upper Rio Napo, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 18, 1902—Munduapo (Rio Orinoco), Nicare and La Prición (Caura), Venezuela;

hybridization between *T. pectoralis* and *T. xanthogaster*, two species known to occur in the vicinity of Rio de Janeiro. The shape of the bill and the greater extent of the glossy black gorget point to *T. pectoralis*, while the blackish barring of the sides, the suggestion of the yellow frontal spot, and the white marking on the outer tail feather recall *T. xanthogaster*. Another argument in favor of the theory just advanced is that *T. pectoralis*, *T. rufiventris*, and *T. cayennensis* appear to be geographical representatives, which leaves hardly room for a second species of the same group in southeastern Brazil.

<sup>1</sup> Vieillot's description, based on Sonnerat's specimen from an undetermined locality in the Paris Museum, refers without any question to the present species. The second example mentioned by Vieillot—"apporté du Brésil, qui diffère du précédent en ce qu'il a la poitrine et toutes les parties inférieures d'un roux foncé"—is clearly *T. pectoralis* (Latham), a South Brazilian species, and we learn indeed from the text of "L'Euphone à ventre marron du Brésil" in Vieillot and Oudart's "Galerie des Oiseaux," 2, Suppl., that it was obtained towards the close of the year 1816 by the naturalist Delalande, Jr., who worked exclusively in the vicinity of Rio de Janeiro. Berlepsch and Hartert (Nov. Zool., 9, p. 53, note, 1902) were, therefore, mistaken in suggesting Rio de Janeiro as type locality for *T. rufiventris*, a purely Amazonian species, and we have, accordingly, substituted Iquitos, Peru, as a more appropriate patria (cf. Arch. Naturg., 85, A, Heft 10, p. 18, note 1, 1920).



Ihering, Cat. Faun. Braz., 1, p. 348, 1907 (range); Berlepsch, Nov. Zool., 15, p. 113, 1908—"Oyapock, Cayenne"; Penard, Vog. Guyana, 2, p. 427, 1910—"Cayenne"; Hellmayr, Nov. Zool., 17, p. 272, 1910—Calama, Rio Madeira; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1020, 1129, 1912 (range); Sneath, Bol. Mus. Goeldi, 8, p. 440, 1914—Bõa Vista, Rio Xingú, Brazil (spec. examined).

*Euphona rufiventris* Pelzeln, Orn. Bras., 3, p. 205, 1870—Rio Negro (above Lamalonga, Barcellos, Marabitanas, San Carlos) and Rio Içanna, Brazil.

*Tanagra rufiventris* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 171, 1916—Munduapo, Orinoco; Chapman, Bull. Amer. Mus. N. H., 55, p. 653, 1926—Rio Suno, Ecuador.

*Tanagra rufiventris rufiventris* Naumburg, Bull. Amer. Mus. N. H., 60, p. 370, 1930—mouth of Rio Cherrie (Rio Roosevelt) and Monte Cristo, Matto Grosso.

*Range.*—Amazonia, from the Orinoco basin and southeastern Colombia (Cuembí, Rio Putumayo) south to central-eastern Peru (as far south as the Chanchamayo Valley, Dept. Junín) and western Brazil (east to the Rio Negro and Rio Xingú, south to northern Matto Grosso).<sup>1</sup>

### *Tanagra rufiventris colorata* Todd.<sup>2</sup> SOUTHERN RUFIOUS-BELLIED EUPHONIA.

*Tanagra rufiventris colorata* Todd, Proc. Biol. Soc. Wash., 26, p. 169, 1913—Rio "Turutu" [= Surutú], Prov. del Sara, Bolivia (type in Carnegie Museum).

<sup>1</sup>Specimens from various localities exhibit certain peculiarities which, if corroborated by larger series, might lead to further subdivision. Males from the Orinoco region, Rio Negro, Rio Madeira, and Rio Xingú, when compared to a series from eastern Ecuador and Peru, have the median under parts and the lower tail coverts deeper orange rufous, and the sulphine yellow lateral area in females is brighter as well as more extensive, though there is some variation in both sexes. Birds from as far south as Chuchurras, Dept. Huánuco, seem to be inseparable from others taken at Cuembí, Colombia, and El Loreto, Ecuador.

This is strictly an Amazonian species, and the locality "Intag" on one of Buckley's skins in the British Museum is doubtless due to a confusion of labeling. I must also question the location "Oyapock, Cayenne," since French Guiana is tenanted by another nearly related species (*T. cayennensis*).

*Additional material examined.*—Colombia: Cuembí, Rio Putumayo, 2.—Ecuador: El Loreto, 3; Coca, 1; Sarayacu, 3.—Peru: Rio Ucayali, 3; Chuchurras, Dept. Huánuco, 2.—Brazil: Lamalonga, Rio Negro, 1; Barcellos, Rio Negro, 7; Rio Içanna, 1; Calama, Rio Madeira, 2; Bõa Vista, Rio Xingú, 1 (male).—Venezuela: San Carlos, Rio Guainia, 1; Munduapo, Orinoco, 2; Caura Valley (Nicare, La Prición), 8.

<sup>2</sup>*Tanagra rufiventris colorata* Todd: Similar to *T. r. rufiventris*, but with markedly larger bill; median under parts of males somewhat duller, mars yellow rather than orange rufous; female brighter green above and on under parts clearer gray, with the sulphine yellow lateral area much more restricted and the crissum paler honey yellow. Wing, 62–64, (female) 59; tail, 38–41, (female) 32; bill, 10–11.

Although the type appears to be aberrant by reason of its unusually dark belly, five specimens may be distinguished by the above characters from the series of typical *rufiventris*.

*Material examined.*—Peru: Yahuar Mayo, Carabaya, Dept. Puno, 4.—Bolivia (unspecified), 1.



*Euphonia rufiventris* (not *Tanagra rufiventris* Vieillot) Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 18, 1920—Yahuarmayo, Carabaya, Peru.

*Range*.—Tropical zone of southeastern Peru (Carabaya) and northern Bolivia (Rio Surutú, Dept. Santa Cruz).

\**Tanagra cayennensis* Gmelin.<sup>1</sup> CAYENNE EUPHONIA.

*Tanagra cayana* Linnaeus,<sup>2</sup> Syst. Nat., 12th ed., 1, p. 316, 1766—based primarily on "Le Tangara noir de Cayenne" Brisson, Orn., 3, p. 29, pl. 2, fig. 1; Cayenne (type in Réaumur Collection).

*Tanagra cayennensis* Gmelin, Syst. Nat., 1, (2), p. 894, 1789—based on "Le Tangara noir de Cayenne" Brisson (Orn., 3, p. 29, pl. 2, fig. 1), "Le Tangara nègre" Buffon (Hist. Nat. Ois., 4, p. 297), and "Tangara, de Cayenne" Daubenton (Pl. Enl., pl. 114, fig. 3); Cayenne.

*Euphonia cayennensis* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 671, "1848" [= 1849]—British Guiana.

*Euphone cayana* Bonaparte, Rev. Mag. Zool., (2), 3, p. 135, 1851—Guiana (diag.).

*Euphonia cayana* Selater, Contrib. Orn., 1851, p. 88—Cayenne and Guiana; idem, Proc. Zool. Soc. Lond., 24, p. 278, 1856—Cayenne, British Guiana, and lower Amazon (monog.); idem, Cat. Coll. Amer. Bds., p. 59, 1862—Cayenne and River Amazon; Selater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 570—Pará, Brazil; Salvin, Ibis, 1885, p. 208—Bartica Grove and Camacusa, British Guiana; Selater, Cat. Bds. Brit. Mus., 11, p. 81, 1886—Cayenne, British Guiana (Bartica Grove, Camacusa, Demerara), and lower Amazon; Sneath, Journ. Orn., 55, p. 293, 1907—Pará and Santo Antonio do Prata, Pará; Berlepsch, Nov. Zool., 15, p. 113, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 427, 1910—Surinam.

*Euphone cajana* Burmeister, Syst. Uebers. Th. Bras., 3, p. 197, 1856—Guiana and northern Brazil.

*Euphonia cayana* Pelzel, Orn. Bras., 3, p. 204, 1870—Barra do Rio Negro [= Manáos] and Pará, Brazil (spec. examined).

*Euphonia cayennensis* Hellmayr, Nov. Zool., 13, p. 357, 1906—Santo Antonio do Prata, Pará; Ihering, Cat. Faun. Braz., 1, p. 348, 1907 (range); Ménégau, Bull. Mus. Hist. Nat. Paris, 14, p. 8, 1908—French Guiana; Berlepsch, Nov. Zool., 15, p. 321, 1908 (nomencl.); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1021, 1912—Guianas and northern Brazil (Pará, Barra do Rio Negro); Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 9, 87, 1912—Ipitinga, Rio Acará, and Pará localities; Sneath, Bol. Mus. Goeldi, 8, p. 440, 1914—Pará, Providencia, Benévices, Santa Isabel, Santo Antonio do Prata, Rio Guamá (Santa Maria

<sup>1</sup> *Tanagra cayennensis* is probably conspecific with *T. rufiventris*. While the male is easily recognizable by its bluish black under parts, the female differs merely by gray instead of honey yellow lower tail coverts and duller, less yellowish sides of the body.

*Additional material examined*.—French Guiana: Cayenne, 5.—British Guiana: Camacusa, 1; Bartica Grove, 1.—Dutch Guiana: near Paramaribo, 6.—Brazil: Pará, 3; Bemfica, 1; Santo Antonio do Prata, 3; Ipitinga, Rio Acará, 2; Manáos, 2.

<sup>2</sup> Preoccupied by another *Tanagra cayana* Linnaeus, Syst. Nat., 12th ed., 1, p. 315, 1766.

do São Miguel), and Rio Jary (Santo Antonio da Cachoeira), Brazil; idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 60, 1926—Tury-assú, Maranhão.

*Tanagra cayennensis* Beebe, Zoologica (N.Y.), 2, p. 99, 1916—Utinga, Pará; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará; Chubb, Bds. Brit. Guiana, 2, p. 492, 1921—Ituribisci River, Supenaam, Kamakabra Creek, Bonasika River, Anarica River, Arawai, Great Falls of Demerara, Tiger Creek, Essequibo, Camacusa, and Bartica Grove; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 277, 1929—Tury-assú, Maranhão.

*Range*.—French, Dutch, and British Guiana; northern Brazil, west to Manáos, south of the Amazon from Pará east to northern Maranhão (Tury-assú).

2: British Guiana (Mazaruni River, 1); Brazil (Murutucú, Pará, 1).

\**Tanagra pectoralis* (Latham).<sup>1</sup> CHESTNUT-BELLIED EUPHONIA.

*Pipra pectoralis* Latham, Ind. Orn., Suppl., p. lvii, 1801—based on “Gold-breasted Manakin” Latham, Gen. Syn. Bds., Suppl., 2, Add., p. 374; Brazil (descr. of male).

*Tanagra chlorocyanea* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 427, 1819—“l'Amérique méridionale” (descr. of female; type in Paris Museum); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 355, 1855 (crit.).

*Pipra frontalis* Thunberg, Mém. Acad. Sci. St. Pétersb., 8, p. 286, 1822—Brazil (descr. of female; type in Upsala Museum); Lönnberg, Ibis, 1903, p. 241 (crit.).

*Euphone rufiventris* (not *Tanagra rufiventris* Vieillot) Lichtenstein, Verz. Doubl. Berliner Mus., p. 30, 1823—Bahia, Brazil (descr. of male and female; types in Berlin Museum).

*Euphone rufiventris* Wied, Beitr. Naturg. Bras., 3, (1), p. 447, 1830—Maricá, Rio de Janeiro.

*Tanagra umbilicalis* Lesson, Traité d'Orn., p. 460, 1831—“Brésil (Delalande)” = Rio de Janeiro (descr. of female; type in Paris Museum).

*Euphone pectoralis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 135, 1851—Brazil (diag.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 196, 1856—Nova Friburgo, Rio.

*Euphonia pectoralis* Selater, Contrib. Orn., 1851, p. 87—Brazil; idem, Proc. Zool. Soc. Lond., 24, p. 279, 1856—southeastern Brazil and “Goyáz” (monog.); idem, Cat. Coll. Amer. Bds., p. 59, 1862—Brazil; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 91, 1865—mountains near Rio de Janeiro;

<sup>1</sup> *Tanagra pectoralis* (Latham) is another close ally, differing from *T. cayennensis* in the male sex by chestnut posterior under parts, while the female may be separated by deep tawny instead of gray lower tail coverts. It is also somewhat larger.

Two birds from Paraguay are identical with a Brazilian series.

*Additional material examined*.—Brazil: Bahia, 1; Taveira, Espirito Santo, 2; Agua Suja, near Bagagem, Minas Geraes, 1; Rio de Janeiro, 4; Praya do Sai, Rio, 3; Ypanema, São Paulo, 5; Joinville, Santa Catharina, 3.—Paraguay: Sapucay, 2.

Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 433—Minas Geraes (Lagôa Santa, Sete Lagôas); Sclater, Cat. Bds. Brit. Mus., 11, p. 80, 1886—southeastern Brazil (Nova Friburgo; Registo do Sai; "Pelotas, Rio Grande do Sul"); Boucard and Berlepsch, The Humming Bird, 2, p. 42, 1892—Porto Real, Rio; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—Rio Grande do Sul (occurrence extremely doubtful); idem, Rev. Mus. Paul., 3, p. 145, 1899—São Paulo (São Paulo, Iguapé, São Sebastião); idem, l.c., 4, p. 153, 1900—Nova Friburgo and Cantagallo, Rio; Oberholser, Proc. U. S. Nat. Mus., 25, p. 143, 1902—Sapucay, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 349, 1907—São Paulo (Alto da Serra, Ubatuba, Itapura, Iguapé) and Paraná (Ourinho); Chubb, Ibis, 1910, p. 623—Sapucay, Paraguay (crit.); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 374, 1910—Alto Paraná, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1020, 1912—Bahia to Santa Catharina, (?)Goyáz, and (?)Rio Grande do Sul, and Paraguay; Bertoni, Faun. Parag., p. 62, 1914—Paraguay (Puerto Bertoni, Iguassú); idem, El Hornero, 1, p. 286, 1919—Paraguay (nest descr.); Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia.

*Euphonia umbilicalis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 137, 1851—Brazil (descr. of female).

*Euphonia pectoralis* Pelzeln, Orn. Bras., 3, p. 205, 1870—Rio de Janeiro (Registo do Sai, Rio de Janeiro) and São Paulo (Ypanema, Rio Paraná).

*Itiophya pectoralis* Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio.

*Euphonia berlepschiana* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 98, 1901—Alto Paraná, Paraguay (types in coll. of A. de W. Bertoni).

*Tanagra pectoralis* Dabbene, Bol. Soc. Physis, 1, p. 361, 1914—Misiones; Sztolerman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 191, 1926—Salto do Cobre, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 319, 1928—Serra do Itatiaya, São Paulo.

*Range.*—Wooded region of southeastern Brazil, from southern Bahia to Santa Catharina,<sup>1</sup> and the adjacent parts of Argentina (Misiones) and Paraguay.

3: Brazil (Joinville, Santa Catharina, 3).

\**Tanagra gouldi gouldi* (Sclater). GOULD'S EUPHONIA.

*Euphonia gouldi* (i) Sclater, Proc. Zool. Soc. Lond., 25, p. 66, pl. 124, 1857—Guatemala (type in coll. of J. Gould, present location unknown); idem, l.c., 25, p. 229, 1857—Santecomapam, Vera Cruz, Mexico; Sclater and Salvin, Ibis, 1859, p. 17—Guatemala; Salvin, Ibis, 1860, p. 194—San Gerónimo, Vera Paz, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 60, 1862—Choctum, Guatemala; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (Angostura, "Payua" [= Pacuare], and "Dota Mountains"); Frantzius, Journ. Orn., 17, p. 298, 1869—eastern Costa Rica (Angostura, Pacuare, Tucurríqui, "Dota Mountains"); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 551, 1869—hot region of Vera Cruz; Salvin,

<sup>1</sup> The records from "Goyáz" and "Pelotas, Rio Grande do Sul," are extremely questionable.

Ibis, 1872, p. 315—Chontales, Nicaragua; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 42, 1878—Guatemala; idem, Proc. Zool. Soc. Lond., 1878, p. 54—San Carlos, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 263, 1883—part, Mexico to Costa Rica; Selater, Cat. Bds. Brit. Mus., 11, p. 81, 1886—part, spec. a-i, Guatemala (Choctum, Kamkhal), British Honduras (Belize), Nicaragua (Chontales), and Costa Rica (Angostura, La Valsa); Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1887—Segovia River, Honduras; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Jiménez, Costa Rica; Richmond, l.c., 16, p. 488, 1893—Greytown and Rio Escondido, Nicaragua; Lantz, Trans. Kans. Acad. Sci., 16, p. 223, 1899—Santo Tomas, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 29, 1902—part, southern Mexico to Costa Rica; Bangs, Bull. Mus. Comp. Zool., 39, p. 155, 1903—Ceiba, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 121, 1907—Los Amates, Guatemala; Ferry, l.c., p. 278, 1910—Guayábo, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 866, 1910—Caribbean Costa Rica (excluding Port Limón); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1021, 1912—part, southern Mexico to Costa Rica; Peters, Auk, 30, p. 379, 1913—Camp Mengel, Quintana Roo.

*Tanagra gouldi* Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 486, 1927—Presidio and Motzorongo, Vera Cruz, Mexico; Austin, l.c., 69, p. 391, 1929—Mountain Cow, British Honduras.

*Tanagra gouldi gouldi* Peters, Bull. Mus. Comp. Zool., 69, p. 470, 1929—Lancetilla, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 375, 1932—Guatemala (Finca Chamá, Chinoxan, Secanquim, Finca Sepacuite); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 244, 1932—Eden and Great Falls of Pis Pis River, Nicaragua; Stone, l.c., p. 337, 1932—Lancetilla and Segovia River, Honduras.

*Range.*—Caribbean side of southeastern Mexico (in states of Vera Cruz, Oaxaca, and Quintana Roo), British Honduras, Guatemala, Honduras, Nicaragua, and Costa Rica (excepting extreme southeastern section south of Port Limón).

14: British Honduras (Twelve Mile Station, Stann Creek Railroad, 1); Guatemala (Los Amates, Izabal, 1; Bobos, Izabal, 1; Escobas, Izabal, 3; unspecified, 4); Costa Rica (Guayábo, 1; Limón, 1; Siquirres, 1); "Central America," 1.

\**Tanagra gouldi praetermissa* Peters.<sup>1</sup> CHIRIQUÍ LAGOON  
EUPHONIA.

*Tanagra gouldi praetermissa* Peters, Bull. Mus. Comp. Zool., 69, p. 470, 1929—Western River, Almirante Bay, Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, l.c., 71, p. 340, 1931—Changuinola, Almirante, Guabo, and Crimacola, Panama.

<sup>1</sup>*Tanagra gouldi praetermissa* Peters: Similar to *T. g. gouldi*, but much smaller, the male with the chestnut abdominal area on average less extensive. Wing, 52-56 (against 55-60), (female) 49-53 (against 54-59) (Peters, l.c.).



*Euphonia gouldi* (not of Sclater) Carriker, Ann. Carnegie Mus., 6, p. 866, 1910—part, Port Limón, Costa Rica.

*Tanagra gouldi* Kennard and Peters, Proc. Bost. Soc. Nat. Hist., 38, p. 462, 1928—Almirante, Panama.

*Range*.—Southeastern Costa Rica, from Port Limón southward, and northwestern Panama (Chiriquí Lagoon, Almirante Bay).

1: Costa Rica (Limón, 1).

\**Tanagra imitans* sp. nov.<sup>1</sup> TAWNY-BELLIED EUPHONIA.

*Euphonia gracilis* (not *Phonasca gracilis* Cabanis) Salvin, Proc. Zool. Soc. Lond., 1870, p. 186—Volcan de Chiriquí and Bugaba, Panama (descr. of male); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 259, pl. 16, fig. 3 (=male), 1883—part, Panama (Volcan de Chiriquí, Bugaba); Sclater,

<sup>1</sup> *Tanagra imitans* sp. nov.

*Type* from El Pózo, Río Térraba, Costa Rica. No. 72680 Field Museum of Natural History. Adult female. Collected December 17, 1923, by Austin P. Smith.

*Characters*.—Similar in form, proportions, and shape of bill to *T. gouldi*, but adult male with upper parts, throat, and foreneck glossy blue black, forepart of the crown empire yellow, and remainder of under parts rich lemon chrome; female with forehead chestnut (instead of yellow), gloss on hind crown and nape more bluish, green of throat, chest, and sides more yellowish, and abdomen medially decidedly paler, ochraceous tawny rather than tawny.

*Description*.—Adult male: Forehead and crown empire yellow, the feathers with partially exposed central triangular spots of black, the yellow area rounded posteriorly; rest of upper parts, together with sides of head and neck, chin, throat, and upper chest (the latter with strongly convex posterior outline) glossy blue black; remiges and rectrices black with greenish steel blue edgings, broad on tertials and rectrices, narrow on primaries; inner webs of remiges (except two outer primaries) with basal half white; no white on rectrices; under parts rich lemon chrome; axillaries and under wing coverts white, slightly tinged with yellowish; bill black, more grayish at base of lower mandible. Wing, 56–60; tail, 30–33; bill, 9.—Adult female: Forehead (extending backward to above middle of eyes) chestnut rufous; rest of upper parts olive green, becoming more yellowish on rump and tail coverts, the crown, occiput, hind neck, back, and scapulars glossed with metallic bluish green; remiges and rectrices dusky with yellowish olive green edges, broadest on tertials, narrowest and palest on primaries; sides of head and most of under parts rich pyrite yellow, palest on chin and anterior malar region; an extensive zone along the middle of breast and abdomen, together with tibial feathers and under tail coverts, ochraceous tawny; basal portion of remiges less extensively white than in the male; axillaries and under wing coverts yellowish white. Wing, 58–60; tail, 30–32; bill, 9.

*Remarks*.—This very distinct Euphonia is the *E. gracilis* auct., but not of Cabanis, as reexamination of this author's original examples plainly shows. In the male sex, it presents some superficial resemblance to *T. luteicapilla*, but aside from its much heavier bill is easily distinguished by the greater extent of the bluish black area down the foreneck and the much more restricted yellow frontal cap with the black basal portions of the feathers showing through. The female, on the other hand, approaches that of *T. gouldi*, with which the natural affinities of *T. imitans* appear to lie. It is by no means impossible that it may be merely a geographical race of that bird with strongly developed sexual dimorphism. Birds from Chiriquí (Bugaba) agree with those from the Térraba Valley. The latter region is evidently the center of its distribution in Costa Rica, though there are also two single records from San José and Miravalles.

*Additional material examined*.—Panama: Bugaba, Chiriquí, 3.—Costa Rica: Boruca, 6.



Cat. Bds. Brit. Mus., 11, p. 69, 1886—part, spec. c-f, Bugaba, Volcan de Chiriquí, and "Veragua"; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Pózo Azul de Pirris, Costa Rica; Cherrie, Proc. U. S. Nat. Mus., 14, p. 530, 1891—Pózo Azul de Pirris, Costa Rica (descr. of female); idem, Auk, 9, p. 24, 1892—San José, Costa Rica (one male taken Dec. 30); idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 137, 1893—Boruca, Costa Rica; Bangs, Auk, 18, p. 369, 1901—Divalá, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 19, 1902—Costa Rica and Chiriquí (monog.); Bangs, Auk, 24, p. 308, 1907—Boruca, Paso Real, Barránca, and Pózo del Río Grande, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 871, 1910—Costa Rica (Pózo Azul de Pirris, El General de Térraba, Miravalles); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1016, 1912—Costa Rica and Chiriquí.

*Range*.—Pacific lowlands of extreme western Panama (Bugaba and Divalá, Chiriquí) and southern Costa Rica (Térraba Valley; one record each from San José and Miravalles).

6: Costa Rica (Boruca, 4; El Pózo de Térraba, 1); Panama (Chiriquí, 1).

**Tanagra mesochrysa<sup>1</sup> mesochrysa** (Salvadori). BRONZE-GREEN EUPHONIA.

*Euphonia mesochrysa* Salvadori, Atti. Accad. Sci. Torino, 8, p. 193, 1873—locality unrecorded, but obviously "Bogotá," Colombia (descr. of male; type in coll. of Count Turati, now in Milan Museum); idem, Ibis, 1878, p. 200—"Bogotá" (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 82, 1886—part, spec. a-e, Colombia ("Bogotá"); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1021, 1912—part, Colombia ("Bogotá") and eastern Ecuador.

*Tanagra mesochrysa mesochrysa* Chapman, Bull. Amer. Mus. N. H., 55, p. 653, 1926—below Oyacachi, Ecuador.

*Euphonia chalcopasta* Sclater and Salvin, Nomencl. Av. Neotrop., pp. 18, 157, Dec., 1873—"Columbia int."="Bogotá" (descr. of male; type in coll. of P. L. Sclater, now in British Museum).

*Range*.—Subtropical zone of eastern Colombia ("Bogotá") and eastern Ecuador (below Oyacachi).

<sup>1</sup>*Tanagra mesochrysa* is easily distinguished from *T. chrysopasta* in the male sex by having a broad yellow postfrontal band; the lores and anterior malar region bronze green like the auriculars, not dingy white; the chin as well as the throat greenish, etc. It closely resembles the male of *T. gouldi*, but has a much smaller bill and differs, besides, by lacking the rufous patch on the abdomen and the green banding of the flanks, while the yellow on the forepart of the crown is duller as well as much less extended. We have not seen any female of the nominate race, but that of *T. m. tawarae* may readily be separated from *T. chrysopasta* by having no grayish white on either lores or malar region (these parts being greenish like the auriculars) and by having the throat, foreneck, and a broad zone along the sides of the body to the under tail coverts bright greenish yellow, contrasting with the grayish buff center of the abdomen.

*Material examined*.—Colombia: "Bogotá," 13 (all males).

\***Tanagra mesochrysa tavarae** Chapman.<sup>1</sup> PERUVIAN BRONZE-GREEN EUPHONIA.

*Tanagra mesochrysa tavarae* Chapman, Amer. Mus. Nov., 160, p. 9, Feb., 1925—Rio Tavara, southeastern Peru (type in the American Museum of Natural History, New York); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 437, 1930—Huachipa, Dept. Huánuco, Peru.

*Euphonia chalcopasta* (not of Sclater and Salvin) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 10—Chirimoto and Huambo, Peru (descr. of young); idem, Orn. Pér., 2, p. 449, 1884—Huayabamba, Peru; idem, l.c., 3, p. 510, 1886 (crit.).

*Euphonia mesochrysa* (not of Salvadori) Sclater, Cat. Bds. Brit. Mus., 11, p. 82, 1886—part, spec. f, Chirimoto; Berlepsch and Stolzmann, Orn., 13, p. 108, 1906—Huaynapata and Rio Cadena, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1021, 1912—part, Peru (Chirimoto, Huambo, Huayabamba, Huaynapata, Rio Cadena).

*Range*.—Subtropical zone of eastern Peru, from Jaen Province (Dept. Cajamarca) south to Marcapata, Dept. Puno.

1: Peru (Huachipa, 1).

\***Tanagra chrysopasta chrysopasta** (Sclater and Salvin). GOLDEN-BELLIED EUPHONIA.

*Euphonia chrysopasta* Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 438, pl. 30, figs. 1, 2 (male, female)—“in Peruvia orient. in ripis fl. Ucayali et in ripis fl. Napo, republ. Aequatorialis” (type, from the lower Ucayali, eastern Peru, in coll. of P. L. Sclater, now in British Museum); idem, l.c., 1873, p. 260—upper and lower Ucayali, Peru; idem, l.c., 1879, p. 598—Simacu, Bolivia; Taczanowski, Orn. Pér., 2, p. 448, 1884—lower and upper Ucayali, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 82, 1886—part, spec. a-g, i-k, Peru (lower Ucayali, Sarayacu), Ecuador (Rio Napo), and Bolivia (Simacu); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 338—La Merced and Borgoña, Chanchamayo, Dept. Junín, Peru; Ihering, Cat. Faun. Braz., 1, p. 349, 1907—part, Peru, Bolivia, and Colombia (“Bogotá”); Hellmayr, Nov. Zool., 17, p. 273, 1910—Salto do Girão, Rio Madeira (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1021, 1912—part, Colombia to Bolivia, and Salto do Girão, Brazil.

<sup>1</sup> *Tanagra mesochrysa tavarae* Chapman: Male very similar to *T. m. mesochrysa*, but frontal band and median portion of the posterior under parts deeper yellow (bright aniline yellow); throat and foreneck paler and more yellowish green. Wing, 58-62; tail, 32-34.

The above characters are pronounced in a male from Marcapata, thus topotypical. Four birds from northern Peru differ by having the frontal edge dark green, the yellow postfrontal band consequently narrower, and the throat and foreneck darker greenish. In all of these points they resemble *T. m. mesochrysa* from “Bogotá,” but have the center of the belly brighter as well as more extensively yellow.

*Additional material examined*.—Peru: Huambo, 3; Chirimoto, 2; Marcapata, 1.

*Euphonia* sp. Selater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—lower Ucayali, Peru.

*Euphonia chlorotica* (not *Tanagra chlorotica* Linnaeus) Pelzeln, Orn. Bras., 3, p. 202, 1870—part, Salto do Girão, Rio Madeira (spec. examined).

*Tanagra chrysopasta* Chapman, Bull. Amer. Mus. N. H., 36, p. 591, 1917—Buena Vista and Villavicencio, eastern base of eastern Andes, Colombia; idem, Bull. U. S. Nat. Mus., 117, p. 117, 1921—Rio Cosireni, Urubamba, Peru; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 267, 1930—Buena Vista, Santa Cruz, Bolivia.

*Tanagra chrysopasta chrysopasta* Chapman, Bull. Amer. Mus. N. H., 55, p. 653, 1926—Rio Suno, Ecuador; Naumburg, l.c., 60, p. 370, 1830—Rio Roosevelt, Matto Grosso (crit.); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 437, 1930—Huachipa, Dept. Huánuco, and Rio Colorado, Chanchamayo, Dept. Junfn, Peru.

*Euphonia mesochrysa* (not of Salvadori) Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá" (crit.).

*Range*.—Upper Amazonia, from the eastern base of the eastern Andes of Colombia through eastern Ecuador and Peru south to eastern Bolivia and the adjacent parts of western Brazil (Salto do Girão, Rio Madeira, and Rio Roosevelt, Matto Grosso).<sup>1</sup>

3: Peru (Huachipa, 1; Rio Colorado, Chanchamayo, 2).

### *Tanagra chrysopasta nitida* Penard.<sup>2</sup> LESSER GOLDEN-BELLIED TANAGER.

<sup>1</sup> Specimens from "Bogotá," Peru, and Bolivia agree in coloration as well as in dimensions. A single female example from the upper Rio Madeira, on the confines of Matto Grosso, cannot be separated either. Males from Upper Amazonia ("Bogotá" to Bolivia) measure on the wing from 59 to 63, while the tail varies from 36 to 40 mm. In females, the respective measurements are 56–59 and 33–38. The figure of the female in the Proc. Zool. Soc. Lond. for 1869 is incorrectly colored. All specimens seen by us have the lores and anterior malar region grayish white, the loreal spot being bordered above by a narrow dusky line.

*Additional material examined*.—Colombia: "Bogotá," 16.—Peru: Rio Ucayali, 1; La Merced, Chanchamayo, 3; Yahuar mayo, Carabaya, 1.—Bolivia: San Mateo, 1; Buena Vista, 2.—Brazil: Salto do Girão, Rio Madeira, 1.

<sup>2</sup> *Tanagra chrysopasta nitida* Penard: Similar to *T. c. chrysopasta*, but smaller; the occipital area, particularly in the male sex, decidedly plumbeous and strongly contrasted with color of forehead and back; under parts of males on average brighter yellow with less olivaceous clouding. Wing, 53–55, (female) 52–54; tail, 31–34.

I find considerable variation in the amount of greenish suffusion underneath, and some individuals are not distinguishable on this score from the nominate race. Birds from Manáos are unquestionably the same as a single male from Surinam. Venezuelan specimens are slightly larger (wing, 56–58; tail, 34–36), but by color characters seem to be nearer *nitida*.

Measurements are apparently somewhat variable, and as some of those given by Mrs. Naumburg for Peruvian and Matto Grosso examples are hardly larger than the dimensions of *T. c. nitida*, more material should be examined to substantiate the claims of this form.

*Material examined*.—Surinam (unspecified), 1.—Brazil: Manáos, 6.—Venezuela: Caura Valley, 3.

*Tanagra chrysopasta nitida* Penard, Occ. Pap. Bost. Soc. Nat. Hist., 5, p. 63, June, 1923—Lelydorp, Surinam (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Euphonia chlorotica* (not *Tanagra chlorotica* Linnaeus) Pelzeln, Orn. Bras., 3, p. 202, 1870—part, Barra do Rio Negro [=Manáos], Brazil (spec. examined).

*Euphonia chrysopasta* (not of Sclater and Salvin) Sclater, Cat. Bds. Brit. Mus., 11, p. 82, 1886—part, spec. h, "Rio Negro"=Manáos; Berlepsch and Hartert, Nov. Zool., 9, p. 18, 1902—Maipures and Munduapo (Orinoco River), Suapuré and La Prición (Caura Valley), Venezuela; Ihering, Cat. Faun. Braz., 1, p. 349, 1907—part, Rio Negro and Venezuela (Orinoco); Penard, Vog. Guyana, 2, p. 428, 1910—Surinam (occurrence probable); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1021, 1912—part, Venezuela (Caura, Maipures, Munduapo, Suapuré, La Prición) and Manáos, Brazil; Sneath, Bol. Mus. Goeldi, 8, p. 441, 1914—Rio Jary (Santo Antonio da Cacheira).

*Tanagra chrysopasta* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 171, 1916—above the falls of the Orinoco, Venezuela.

*Range*.—Dutch Guiana, probably also French and British Guiana; northern Brazil (Rio Jary and Manáos, north bank of the Amazon); southern Venezuela (Orinoco basin and its tributaries).

**\**Tanagra plumbea* (Du Bus). PLUMBEOUS EUPHONIA.**

*Euphonia plumbea* Du Bus, Bull. Acad. Roy. Sci., Lettr. et Beaux-Arts Belgique, 22, (1), p. 156, 1855—"la Nouvelle Grenade," errore (descr. of male; type in Brussels Museum); Sclater, Proc. Zool. Soc. Lond., 24, p. 280, 1856—Rio Negro (descr. of male and female); Salvin, Ibis, 1885, p. 208—Bartica Grove, Merumé Mountains, and Roraima, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 83, 1886—same localities; Ihering, Cat. Faun. Braz., 1, p. 349, 1907 (range); Penard, Vog. Guyana, 2, p. 429, 1910—British Guiana; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1021, 1912—British Guiana and Rio Negro; Sneath, Bol. Mus. Goeldi, 8, p. 441, 1914 (range).

*Euphonia plumbea* Pelzeln, Orn. Bras., 3, p. 205, 1870—Barra do Rio Negro [=Manáos] and Marabitanas, Rio Negro (spec. examined).

*Tanagra plumbea* Chubb, Bds. Brit. Guiana, 2, p. 500, 1921—lower Mazaruni River, Kamakabra Creek, Great Falls of Demerara, Roraima, Merumé Mountains, and Bartica.

*Range*.—British Guiana and northern Brazil (Manáos; Marabitanas, Rio Negro).<sup>1</sup>

2: British Guiana (Demerara River, 2).

<sup>1</sup> This peculiar species is still very rare in collections. Birds from the Rio Negro appear to agree with others from British Guiana.

*Material examined*.—British Guiana: Roraima (alt. 3,500 ft.), 4; River Carang, 3.—Brazil: Manáos, 3; Marabitanas, Rio Negro, 2.



\**Tanagra chalybea* Mikan.<sup>1</sup> GREEN-THROATED EUPHONIA.

*Tanagra chalybea* Mikan, Del. Faun. Flor. Bras., livr. 4, pl. [21], figs. 1, 2, 1825—Ypanema, São Paulo, Brazil (types in Vienna Museum examined); Dabbene, Bol. Soc. Physis, 1, p. 361, 1914—Paraguay and Misiones (Santa Ana).

*Euphonia aenea* Sundevall, Vetensk.-Akad. Handl. for 1833, p. 309, pl. 11, fig. 4 (=adult male), 1834—Brazil (type in Stockholm Museum; cf. Gyldenstolpe, Ark. Zool., 19, A, No. 1, p. 14, 1926); Bonaparte, Rev. Mag. Zool., (2), 3, p. 136, 1851—Brazil (diag.).

*Tanagra (Euphonia) pardalotes* Lesson, Écho du Monde Sav., 11th année, 2nd sém., No. 2, col. 31, July 7, 1844—locality unknown (type in coll. of Dr. Abeillé, Bordeaux; descr. of male).

*Euphonia chalybea* Strickland, Contrib. Orn., 1851, p. 71—Brazil; Sclater, l.c., 1851, p. 85—Brazil; idem, Proc. Zool. Soc. Lond., 24, p. 276, 1856—Rio Grande do Sul (monog.); idem, Cat. Coll. Amer. Bds., p. 58, 1862—Brazil; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 118, 1885—Taquara and Arroio Grande, Rio Grande do Sul; Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 354, 1912—Paso Yuvay, Paraguay.

*Euphonia chalybaea* Burmeister, Syst. Uebers. Th. Bras., 3, p. 194, 1856—São Paulo, "southern Minas" [Geraes], and Santa Catharina.

*Euphonia chalybea* Pelzeln, Orn. Bras., 3, p. 204, 1870—São Paulo (Ypanema, São Paulo, Rio Paraná); idem, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio.

*Hypophaea chalybea* Cabanis, Journ. Orn., 9, p. 91, 1861 (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 84, 1886—Rio de Janeiro (Nova Friburgo) to Rio Grande do Sul; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 146, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 153, 1900—Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 349, 1907—São Paulo (Ypiranga, Iguapé) and Rio Grande do Sul (Novo Hamburgo); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 374, 1910—Alto Paraná, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1022, 1912—Brazil (from Rio de Janeiro to Rio Grande do Sul) and Paraguay; Bertoni, Anal. Soc. Cient. Arg., 75, p. 98, 1913—Misiones; idem, Faun. Parag., p. 62, 1914—Alto Paraná, Paraguay.

*Euphonia egusquiza* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 99, Jan., 1901—Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).<sup>2</sup>

*Euphonia (Ipophaea) chalybea* Bertoni, El Hornero, 1, p. 286, 1919—Paraguay (crit.).

*Hypophaea chalybea caerulescens* Sztolcman, Anal. Zool. Mus. Pol. Hist. Nat., 5, p. 191, 1926—Candido de Abreu, Paraná, Brazil (type in Warsaw Museum).

<sup>1</sup> I agree with Mr. Ridgway that there is no reason for separating this species generically (*Hypophaea* Cabanis).

<sup>2</sup> Birds from Rio Grande do Sul do not differ in any way from a series from São Paulo and Rio de Janeiro. Both the shade of the metallic gloss of the upper parts and the suggestion of a white spot on the inner web of the outermost rectrix



*Range*.—Wooded region of southeastern Brazil (from Rio de Janeiro to Rio Grande do Sul) and adjacent districts of Paraguay and Argentina (Misiones).

3: Argentina (Eldorado, Misiones, 1; Puerto Segundo, Misiones, 2).

### Genus PYRRHUPHONIA Bonaparte

*Pyrhuphonia* Bonaparte, Compt. Rend. Acad. Sci. Paris, **31**, p. 423, 1850—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *Fringilla jamaica* Linnaeus.

#### \**Pyrhuphonia jamaica* (Linnaeus). JAMAICAN EUPHONIA.

*Fringilla jamaica* Linnaeus, Syst. Nat., 12th ed., **1**, p. 323, 1766—based on "Passer coeruleo-fuscus" Sloane, Voy. Jamaica, **2**, p. 311, pl. 257, fig. 3; Jamaica.

*Fringilla jamaicana* Schreber, in Linnaeus, Amoen. Acad., 3rd ed., **1**, p. 489, 1785—based on "Passer coeruleo-fuscus" Sloane, Voy. Jamaica, **2**, p. 311, pl. 257, fig. 3; Jamaica.

*Euphonia cinerea* Lafresnaye, Rev. Zool., **9**, p. 277, 1846—"Colombie," errore (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., **70**, p. 399, 1930); Sclater, Contrib. Orn., 1851, p. 91 (ex Lafresnaye).

*Euphonia jamaica* Gosse, Bds. Jamaica, p. 238, 1847—Jamaica (habits); idem, Illust. Bds. Jam., pl. 59, 1849; Sclater, Proc. Zool. Soc. Lond., 1861, p. 73—Jamaica; idem, Cat. Coll. Amer. Bds., p. 60, 1862—Jamaica; March, Proc. Acad. Nat. Sci. Phila., 1863, p. 296—Jamaica (nest and eggs); Cory, Auk, **3**, p. 194, 1886—Jamaica (monog.); idem, Bds. W. Ind., p. 81, 1889—Jamaica; Scott, Auk, **10**, p. 180, 1893—Jamaica (Stony Hill, Constant Springs, Priestman's River); Field, Auk, **11**, p. 127, 1894—Port Henderson, Jamaica (nest).

*Euphonia jamaicae* Sclater, Contrib. Orn., 1851, p. 91—Jamaica.

*Euphonia jamaicensis* Sclater, Proc. Zool. Soc. Lond., **24**, p. 280, 1856—Jamaica (monog.).

*Pyrhuphonia jamaica* Bonaparte, Rev. Mag. Zool., (2), **3**, p. 137, 1851—Jamaica (diag.); Sclater, Cat. Bds. Brit. Mus., **11**, p. 85, 1886—Jamaica (Moneague, Metcalfe Parish, St. Ann's); Cory, Cat. W. Ind. Bds., pp. 16, 113, 130, 1892—Jamaica; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 2, p. 31, 1902—Jamaica (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1022, 1912—Jamaica; Danforth, Auk, **45**, p. 490, 1928—Jamaica (Kingston, Lumsden, Jackson Town).

*Pyrhuphonia cinerea* Bonaparte, Rev. Mag. Zool., (2), **3**, p. 137, 1851—"Columbia" (ex Lafresnaye).

—characters that gave rise to the separation of *caerulescens* Sztolcman and *egusquiza* Bertoni—are purely individual features and not connected with particular areas.

*Additional material examined*.—Rio de Janeiro: Petropolis, 1; Nova Friburgo, 1.—São Paulo: Ypanema, 6 (including the types); São Paulo, 1; Rio Paraná, 1.—Santa Catharina: Blumenau, 1.—Rio Grande do Sul: Taquara, 3.

*Range*.—Island of Jamaica, Greater Antilles.  
22: Jamaica.

### Genus TANAGRELLA Swainson

*Tanagrella* Swainson,<sup>1</sup> Anim. Menag., p. 313, Dec. 31, 1837—type, by monotypy, *Tanagrella multicolor* Swainson=*Tanagra cyanomelas* Wied.

*Hypothlypis* Cabanis, Arch. Naturg., 13, (1), p. 316, 1847—new name for *Tanagrella* Swainson.

#### \**Tanagrella velia velia* (Linnaeus). GUIANAN TANAGRELLA.

*Motacilla velia* Linnaeus, Syst. Nat., 10th ed., 1, p. 188, 1758—based on "The Red-bellied Blue Bird" Edwards, Nat. Hist. Birds, 1, p. 22, pl. 22;<sup>2</sup> Surinam.

*Tanagra varia* (not of P. L. S. Müller, 1776) Stephens, in Shaw, Gen. Zool., 14, (1), p. 7, 1826—based on *Motacilla velia* Desmarest, Hist. Nat. Tang., pl. 2, 1805; Cayenne and Surinam.

*Hypothlypis iridina* (not *Tanagra iridina* Hartlaub) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 667, "1848" [= 1849]—Roraima, British Guiana.

*Tanagrella velia iridina* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1022, 1129, 1912—part, Roraima (crit.).

*Tanagrella velia* Sclater, Contrib. Orn., 1851, p. 97—Cayenne and Demerara (diag.); idem, Proc. Zool. Soc. Lond., 24, p. 267, 1856—Cayenne and British Guiana (descr.); Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Sclater, Cat. Coll. Amer. Bds., p. 60, 1862—Cayenne, British Guiana, and "Rio Negro" (errore); Salvin, Ibis, 1885, p. 209—Bartica Grove, Merumé Mountains, Camacusa, and Roraima; Sclater, Cat. Bds. Brit. Mus., 11, p. 87, 1886—Cayenne and British Guiana; Berlepsch, Nov. Zool., 15, p. 113, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1022, 1129, 1912—Cayenne and British Guiana (Bartica Grove, Merumé Mountains, Camacusa, Caramang River) (crit.); Chubb, Bds. Brit. Guiana, 2, p. 502, 1921—British Guiana (Ituribisci, Supenaam, Bartica, Kamakabra River, Bonasika, Arawai, Great Falls of Demerara, Roraima, Merumé Mountains, and Caramang River).

*Tanagrella velia velia* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 87, 1918—Lelydorp, Surinam.

*Range*.—French, Dutch, and British Guiana.<sup>3</sup>

1: French Guiana (Saint Jean du Maroni, 1).

<sup>1</sup> *Tanagrella* Swainson (Nat. Hist. Classif. Bds., 2, p. 286, June, 1837) seems hardly more than a nomen nudum. The only species mentioned, *T. multicolor*, was undescribed at the time, while the characters of the genus, placed as it is between *Euphonia* and *Pipilo*, "Bill very slender, compressed, and much lengthened; the lateral toes equal," are practically worthless for its identification.

<sup>2</sup> The figure is rather unsatisfactory. Edwards did not himself see the bird, but made the drawing from a colored sketch supplied by the Duke of Richmond.

<sup>3</sup> Birds from the lowlands of British Guiana ("Demerara" preparation) appear to be inseparable in coloration from two (unsexed) Cayenne skins, but average slightly larger. Specimens from Roraima are still a little larger and fully as long-

**Tanagrella velia iridina** (Hartlaub).<sup>1</sup> AMAZONIAN TANAGRELLA.

*Tanagra iridina* Hartlaub, Rev. Zool., 4, p. 305, 1841—"Prov. Mogobamba, Peru" = Moyobamba, Dept. San Martín, Peru (type in Bremen Museum).

*Tanagrella elegantissima* J. and E. Verreaux, Rev. Mag. Zool., (2), 5, p. 195, 1853—"le Pérou" (location of type not stated); Selater, Proc. Zool. Soc. Lond., 23, p. 158, 1855—Bogotá; idem, l.c., 24, p. 267, 1856—"Bogotá," Rio Xié (Brazil) and "Porto Cabello," errore (monog.).

*Tanagrella iridina* Selater, Proc. Zool. Soc. Lond., 25, p. 264, 1857—Rio Javarri; idem, Cat. Coll. Amer. Bds., p. 60, 1862—"New Granada"; Pelzeln, Orn. Bras., 3, p. 205, 1870—Rio Xié, Brazil (spec. examined); Selater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 261—Rio Javarri; Taczanowski, Orn. Pér., 2, p. 453, 1884—Moyobamba and Rio Javarri; Selater, Cat. Bds. Brit. Mus., 11, p. 88, 1886—Peru (Iquitos, Ucayali, Rio Javarri), Ecuador (Sarayacu), Colombia ("Bogotá"), and "Oyapock, Cayenne" (errore); Berlepsch and Hartert, Nov. Zool., 9, p. 18, 1902—Suapuré, Caura River, Venezuela; Berlepsch, l.c., 15, p. 113, 1908—"Oyapock, Cayenne" (errore); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 90, 1911—eastern Ecuador; Sneath, Bol. Mus. Goeldi, 8, p. 442, 1914 (range); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 172, 1916—La Union, Caura, Venezuela; Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, Ecuador.

*Tanagrella velia iridina* Ihering and Ihering, Cat. Faun. Braz., 1, p. 350, 1907 (range); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1022, 1129, 1912—range, excl. Roraima (crit.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 19, 1920—Yahuarmayo, Dept. Puno, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 653, 1926—Rio Suno, eastern Ecuador.

*Hypothlypis velia* (not *Motacilla velia* Linnaeus) Heine and Reichenow, Nomencl. Mus. Hein., p. 16, 1890—"Porto Cabello," Venezuela (errore).

winged as certain individuals of *T. v. iridina*, and the humeral area as well as the edges to the flight-quills in adult males are intermediate between the greenish blue of *velia* and the violet blue of *iridina*, being of a pure prussian blue. As females, however, do not differ in that respect from Cayenne skins of the same sex, I hesitate to follow Count Berlepsch in referring Roraima birds to *iridina*, and prefer to keep the inhabitants of the whole of British Guiana under *velia*. Nevertheless, the study of a fuller series from French and Dutch Guiana might lead to somewhat different conclusions. Care must be taken in comparing only specimens of the same sex, as there is considerable variation between males and females in the shade of the blue areas of the plumage. Wing of adult males: Cayenne, 70, 72; Demerara, 73, 75; Roraima, 77, 79.

*Additional material examined*.—French Guiana: Cayenne, 3.—British Guiana: Demerara, 3; River Caramang, 1; Roraima, 4.

<sup>1</sup> *Tanagrella velia iridina* (Hartlaub): Similar to *T. v. velia*, but front and sides of the head and neck, humeral area, and margins to wing and tail feathers in adult males decidedly purplish blue.

Birds from southeastern Peru (Yahuarmayo) are larger than a series from the Rio Xié, Colombia, and Ecuador, but are closely approached in size by two from Venezuela (Caura Valley). In coloration, I am unable to perceive any constant difference between specimens from various parts of the range.

*Additional specimens examined*.—Venezuela: Suapuré, Caura Valley, 2.—Brazil: Rio Xié (Rio Negro), 5.—Colombia: "Bogotá," 3; Cuembí, Rio Putumayo, 1.—Ecuador: Sarayacu, 3.—Peru: Yahuarmayo, 4.

*Range*.—Amazonia, from southern Venezuela (Caura Valley) and northwestern Brazil (Rio Xié, tributary of the Rio Negro) west to the eastern foot of the eastern Andes in Colombia and Ecuador, and south through eastern Peru to the Bolivian boundary.<sup>1</sup>

\**Tanagrella velia signata* Hellmayr.<sup>2</sup> PARÁ TANAGRELLA.

*Tanagrella velia signata* Hellmayr, Bull. Brit. Orn. Cl., 15, p. 90, 1905—Pará (type in Tring Collection, now in the American Museum of Natural History, New York); Ihering, Cat. Faun. Braz., 1, p. 350, 1907—Pará; Hellmayr, Abhandl. Math.-Phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 9, 87, 1912—Pará; Snethlage, Bol. Mus. Goeldi, 8, p. 442, 1914—Pará, Providencia, Peixe-Boi, and Marajó (Rio Macujubim); Beebe, Zoologica (N.Y.), 2, p. 100, 1916—Utinga, Pará; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará.

*Tanagrella signata* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1023, 1912—Pará, Providencia, Rio Macujubim.

*Tanagrella velia* (not *Motacilla velia* Linnaeus) Layard, Ibis, 1873, p. 379—Pará (spec. examined); Snethlage, Journ. Orn., 55, p. 293, 1907—Pará.

*Range*.—Northeastern Brazil, in State of Pará (Pará, Souza, Utinga, Providencia, Peixe-Boi; Rio Macujubim, Marajó Island). 3: Brazil (Utinga, Pará, 3).

*Tanagrella velia cyanomelaena* (Wied).<sup>3</sup> EAST BRAZILIAN TANAGRELLA.

*Tanagra cyanomelas* Wied, Beitr. Naturg. Bras., 3, (1), p. 453, 1830—Rio Ilhéos, Bahia, Brazil (type lost, formerly in Wied Collection; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 218, 1889).

<sup>1</sup> The specimen from "Puerto Cabello" in the Heine Collection is no doubt incorrectly labeled, while that from "Oyapock, Cayenne" formed part of a lot containing various species peculiar to the Rio Negro and the upper stretches of the Orinoco and certainly never came from French Guiana, where another race is found.

<sup>2</sup> *Tanagrella velia signata* Hellmayr: Similar to *T. v. iridina* in decidedly purplish blue coloration of front and sides of the head and margins to wing and tail feathers, but smaller and with a silvery greenish spot on the forepart of the crown. Wing, 70–72; tail, 49½–51½.

*Additional material examined*.—Brazil: Pará, 5; Providencia, 1.

<sup>3</sup> *Tanagrella velia cyanomelaena* (Wied), though readily distinguished from the preceding forms by the pale bluish gray coloration of the breast and sides, is, nevertheless, connected with *T. v. velia* and *T. v. iridina* by the intervening *T. v. signata*, which resembles it in possessing an ochreous or silvery greenish spot behind the blue forehead. I have, therefore, no hesitation in referring it to the same specific group.

Its range appears to be restricted to the wooded coast region from Rio de Janeiro to Pernambuco. The locality "Rio Claro, Goyáz" is without question erroneous. The specimen so labeled in the British Museum looks like an ordinary Bahia trade-skin.

*Additional specimens examined*.—Brazil: Rio de Janeiro (trade-skin), 1; Bahia, 15; São Lourenço, Pernambuco, 2.



*Tanagrella multicolor* Swainson, Anim. Menag., p. 313, Dec. 31, 1837—forests of Urupé, near Bahia, Brazil (type in Swainson Collection, now in University Museum, Cambridge, Engl.).

*Tanagrella cyanomelas* Bonaparte, Consp. Gen. Av., 1, (1), p. 236, 1850—Brazil; Sclater, Contrib. Orn., 1851, p. 97—Brazil (diag.); idem, Proc. Zool. Soc. Lond., 24, p. 268, 1856—southeastern Brazil (crit.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 178, 1856—coast region of Brazil between Cabo Frio and Bahia; Sclater, Cat. Coll. Amer. Bds., p. 60, 1862—Bahia; Pelzeln, Orn. Bras., 3, p. 205 (note 2), 1870—Bahia.

*Tanagrella cyanomelaena* Sclater, Cat. Bds. Brit. Mus., 11, p. 88, 1886—Pernambuco, Bahia, and “Rio Claro, Goyáz” (errore), Brazil; Ihering and Ihering, Cat. Faun. Braz., 1, p. 350, 1907—Bahia and Espirito Santo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1023, 1912—Pernambuco, Ilhéos, Bahia, and “Rio Claro, Goyáz” (errore); Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia.

*Range.*—Wooded coast region of eastern Brazil from Rio de Janeiro to Pernambuco.

### ***Tanagrella callophrys* (Cabanis). BLUE-BELLIED TANAGRELLA.**

*Hypothlypis callophrys* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 668 (note), “1848” [=1849]—“Brazil” (type probably in Berlin Museum).

*Tanagrella callophrys* Bonaparte, Rev. Mag. Zool., (2), 3, p. 130, 1851—Rio Napo, Ecuador (diag.); idem, Compt. Rend. Acad. Sci. Paris, 32, p. 77, 1851—Rio Napo; Pelzeln, Verh. Zool. Bot. Ges. Wien, 28, p. 19, 1878—Rio Napo; Taczanowski, Orn. Pér., 3, p. 510, 1886—Iquitos, Peru; Sneath, Journ. Orn., 56, p. 9, 1908—Ponto Alegre, Rio Purús, Brazil; idem, Bol. Mus. Goeldi, 8, p. 442, 1914—same locality; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 18, 1920—Yahuar Mayo, Dept. Puno, Peru (crit.).

*Tanagrella callophrys* Sclater, Contrib. Orn., 1851, p. 98, pl. 74—Rio Negro, Brazil, and Rio Napo, Ecuador; idem, Proc. Zool. Soc. Lond., 24, p. 268, 1856—Quixos, Ecuador, and Rio Ucayali, Peru; idem, Cat. Coll. Amer. Bds., p. 61, 1862—Rio Napo and Rio Negro; Pelzeln, Verh. Zool. Bot. Ges., 24, p. 173, 1874—eastern Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 89, 1886—Ecuador (Sarayacu) and Peru (Iquitos, Rio Ucayali); Berlepsch, Journ. Orn., 37, p. 296, 1889—Sarayacu, Rio Ucayali, Peru; Goodfellow, Ibis, 1901, p. 459—mouth of the Coca, upper Napo, Ecuador; Ihering, Cat. Faun. Braz., 1, p. 350, 1907 (range); Ménégau, Bull. Mus. Hist. Nat. Paris, 14, p. 110, 1908—Rio Napo; idem, Bull. Soc. Philom. Paris, (9), 10, p. 93, 1908—Rio Napo; idem, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 91, 1911—Rio Napo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1023, 1912 (range); Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 653, 1926—Rio Napo, Ecuador.

*Range.*—Tropical zone of Upper Amazonia from eastern Ecuador and the adjoining parts of Brazil (Rio Negro; Rio Solimões; Rio



Purús) through the lowlands of eastern Peru to the Bolivian boundary.<sup>1</sup>

### Genus **CHLOROCHRYSA** Bonaparte

*Chlorochrysa* Bonaparte,<sup>2</sup> Compt. Rend. Acad. Sci. Paris, 32, p. 76, "Jan.," 1851—type, by subs. desig. (Bonaparte, Rev. Mag. Zool., (2), 3, p. 129, 1851), *Tanagra* [= *Callospiza*] *calliparaea* Tschudi (ex Lichtenstein MS.).

*Calliparaea* Bonaparte, Rev. Mag. Zool., (2), 3, p. 129, 1851—substitute name for *Chlorochrysa* Bonaparte.

### \**Chlorochrysa phoenicotis* (Bonaparte). GREEN CHLOROCHRYSA.

*Calliste phoenicotis* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 76, "Jan.," 1851—Ecuador=Nanegal (type in Paris Museum); idem, Rev. Mag. Zool., (2), 3, p. 129, 1851—Ecuador.

*Chlorochrysa phoenicotis* Sclater, Contrib. Orn., 1851, p. 100, pl. 72, fig. 2—Nanegal, Ecuador; idem, Proc. Zool. Soc. Lond., 24, p. 266, 1856—Nanegal; idem, l.c., 28, p. 87, 1860—Nanegal; idem, Cat. Coll. Amer. Bds., p. 61, 1862—Nanegal; idem, Ibis, 1875, p. 466—Nanegal (monog.); idem, Cat. Bds. Brit. Mus., 11, p. 90, 1886—western Ecuador (Nanegal, "Quito," "Napo" and "Sarayacu," errore) and Colombia ("Pasto"); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Gualea; Goodfellow, Ibis, 1901, p. 460—above Nanegal; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 91, 1911—Gualea and Pacto, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1024, 1912—Ecuador ("Quito," Nanegal, Gualea, Santo Domingo, "Sarayacu," "Rio Napo") and Colombia ("Pasto"); Chapman, Bull. Amer. Mus. N. H., 36, p. 592, 1917—Nóvita Trail, Cerro Munchique, and Gallera, western Andes of Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 83, 1922—Nanegal; Chapman, Bull. Amer. Mus. N. H., 55, p. 654, 1926—Gualea.

*Chlorochrysa sodiroi* Pelzeln, Verh. Zool. Bot. Ges. Wien, 28, p. 19, 1878—Ecuador (type in Vienna Museum examined;=juv.).

*Chlorochrysa nitidissima* (not of Sclater) Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—"Rio Napo" (errore).

*Range*.—Subtropical zone of the western Andes of Colombia and western Ecuador.<sup>3</sup>

2: Ecuador (Rio Saloya, 1; unspecified, 1).

<sup>1</sup> *Material examined*.—Ecuador: Rio Pastaza, 2; Sarayacu, 2; Rio Napo, 1.—Brazil: Santa Rita, Rio Solimões, 1.—Peru: Iquitos, 6; Yahuar Mayo, Dept. Puno, 3.

<sup>2</sup> *Chlorochrysa* Bonaparte appears to have slight priority over the same author's name *Calliparaea* published in the March number of the "Revue et Magasin de Zoologie," which was probably issued several months after its ostensible date.

<sup>3</sup> Two birds from Gallera, Colombia, seem to agree with others from Ecuador. The localities "Rio Napo" and "Sarayacu" attached to certain specimens of Buckley's are obviously erroneous.

*C. sodiroi* was based upon juvenile plumage, as examination of the type shows. *Additional material examined*.—Colombia: Gallera, 2.—Western Ecuador: Gualea, 4; Pacto, 1; Nanegal, 2; unspecified, 3.

\**Chlorochrysa calliparaea bourcierii* (Bonaparte).<sup>1</sup> BOURCIER'S  
CHLOROCHRYSA.

*Calliste bourcierii* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 76, "Jan.," 1851—Ecuador (type in Paris Museum).

"*Call.*" *bourcierii* Bonaparte, Rev. Mag. Zool., (2), 3, p. 129, "March," 1851—type stated to be from "des bois de Bagnos, pres du Tonguragua"= Baños, eastern Ecuador.

*Chlorochrysa calliparaea* (not *Callospiza calliparaea* Tschudi) Sclater, Contrib. Orn., July, 1851, p. 99, pl. 73, fig. 1—part, Anolaima, Colombia; idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—Bogotá; idem, l.c., 24, p. 266, 1856—part, descr. et hab. Baños (Ecuador) and Anolaima (Colombia); idem, l.c., 26, p. 74, 1858—Rio Napo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 61, 1862—Anolaima, Colombia.

*Chlorochrysa calliparia* Sclater, Ibis, 1875, p. 465—part, Ecuador and Colombia (descr.); idem, Cat. Bds. Brit. Mus., 11, p. 90, 1886—part, Ecuador (Sarayacu, Rio Napo, "Quito," errore) and Colombia (Bogotá).

*Chlorochrysa bourcierii* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 77—Machay and Mapoto, Ecuador (crit.); Goodfellow, Ibis, 1901, p. 459—Baeza, Ecuador; Ménégaux, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 91, 1911—eastern Ecuador (crit.).

*Chlorochrysa calliparaea bourcierii* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1023, 1912—Colombia (Bogotá, Anolaima) and eastern Ecuador (Baños, Mapoto, Machay, Sarayacu, Rio Napo, Baeza); Chapman, Bull. Amer. Mus. N. H., 36, p. 591, 1917—near San Agustin and La Candela, Magdalena Valley, Colombia; idem, l.c., 55, p. 654, 1926—eastern Ecuador (Zamora, Sabanilla, Macas region, below San José, lower Sumaco, Baeza) and northwestern Peru (Chaupe).

*Tanagrella dubusi* Dubois, Arch. Cosmol., 1, No. 4, p. 118, pl. 7, 1867—Ecuador (type in coll. of C. F. Dubois, present location unknown); Newton, Ibis, 1868, p. 112 (crit.).

*Chlorochrysa calliparaea calliparaea* (not *Callospiza calliparaea* Tschudi) Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 438, 1930—Huachipa, Peru (crit.).

<sup>1</sup> *Chlorochrysa calliparaea bourcierii* (Bonaparte): Similar to *C. c. calliparaea*, and resembling it in the black throat, but lacks the well-defined violet blue area underneath, the lower parts being shining grass green like the back and merely tinged with bluish (beryl green to cendre blue) in the middle and less so on the under tail coverts; forehead and sides of the head more *greenish* blue. Size about the same.

Two "Bogotá" skins agree with others from Ecuador, and I am not able to satisfactorily separate two adult males from Peru. One has the median portion of the under parts, I admit, more deeply bluish (nearly oxide blue, when held against the light), but the other example hardly differs from Ecuadorian specimens. They are, however, quite distinct from *calliparaea*, of the Junín district.

*Material examined.*—Colombia: "Bogotá," 2.—Ecuador: El Topo, Rio Pastaza, 1; Alpayacu, Rio Pastaza, 1; Machay, 4; Rio Napo, 3; San José, 1; "Ambato," 1; unspecified, 3.—Peru: Huachipa, Dept. Huánuco, 3.

*Range*.—Subtropical zone of eastern Colombia (Magdalena Valley), eastern Ecuador, and northern Peru (Chaupe, east of Huancabamba, Prov. Jaen; Huachipa, Dept. Huánuco).

3: Peru (Huachipa, 3).

***Chlorochrysa calliparaea calliparaea* (Tschudi).<sup>1</sup> PERUVIAN CHLOROCHRYSA.**

*Callospiza calliparaea* (Lichtenstein MS.) Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru (the type examined in the Berlin Museum, No. 5655, was obtained by B. Philippi in the "Chinchon forests" of Dept. Junín); idem, Unters. Faun. Peru., Aves, p. 202, 1846—Peru.

*Calliste calliparaea* Bonaparte, Consp. Gen. Av., 1, (1), p. 235, 1850—Peru (ex Tschudi).

*Chlorochrysa calliparaea* Selater, Contrib. Orn., July, 1851, p. 99—part, Peru; idem, Proc. Zool. Soc. Lond., 24, p. 266, 1856—part, eastern Peru (ex Tschudi); Taczanowski, l.c., 1874, p. 515—Amable Maria and Pumamarca; idem, Orn. Pér., 2, p. 452, 1884—same localities; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—Garita del Sol, Vitoc, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1023, 1912—Peru (Chinchon forests, Amable Maria, Pumamarca, Garita del Sol, "Chanchamayo").

*Chlorochrysa calliparaea* Selater, Ibis, 1875, p. 465—part, Peru (Amable Maria, Pumamarca); idem, Cat. Bds. Brit. Mus., 11, p. 90, 1886—part, Peru.

*Chlorochrysa calliparaea caeruleipectus* Carriker, Proc. Acad. Nat. Sci. Phila., 82, p. 375, Dec., 1930—Eneñas, Dept. Junín, Peru (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Subtropical zone of central Peru, in Dept. of Junín (Amable Maria, Pumamarca, Eneñas, Garita del Sol).

***Chlorochrysa calliparaea fulgentissima* Chapman.<sup>2</sup> HEDWIG'S CHLOROCHRYSA.**

<sup>1</sup> *Chlorochrysa calliparaea calliparaea* (Tschudi), in the coloration of the under parts, is exactly intermediate between *C. c. bourcierii* and *C. c. fulgentissima*, the throat being black as in the former, while the median portion of the breast and the abdominal line are brilliant violet blue strongly contrasted with the grass green of the sides and under tail coverts, exactly as in *fulgentissima*. Size and color of the orange spots on the anterior crown and sides of the neck as well as the bright orange uropygial patch are the same as in *bourcierii*.

Examination of Tschudi's type shows *C. c. caeruleipectus* to be an absolute synonym of *calliparaea*, the Huachipa specimens used by Mr. Carriker for comparison being *C. c. bourcierii*.

*Material examined*.—Peru: Chinchon forests of Junín, 1 (type of *C. calliparaea*); Garita del Sol, 1; Amable Maria, 1.

<sup>2</sup> *Chlorochrysa calliparaea fulgentissima* Chapman: Similar on the under parts to *C. c. calliparaea*, but throat violet blue like the median pectoral area instead of black; spot on the anterior crown much smaller and paler, nearly straw yellow; uropygial patch deeper, more reddish orange; spot on sides of neck much smaller, deeper in color, reddish orange to coral red, and composed of lengthened, rather rigid feathers. Wing, 70–73, (female) 67–69; tail, 42–46, (female) 39–43; bill, 12–13.

*Material examined*.—Peru: Huaynapata, 5; Marcapata, 6.

*Chlorochrysa fulgentissima* Chapman, Bull. Amer. Mus. N. H., 14, p. 225, Sept. 7, 1901—Inca Mine [=Santo Domingo], southeastern Peru (type in the American Museum of Natural History, New York); Berlepsch, Ibis, 1903, p. 135 (crit.).

*Chlorochrysa hedwigae* Berlepsch and Stolzmann, Ibis, (8), 1, p. 716, pl. 15, Oct., 1901—Huaynapata, Marcapata, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 181, 1927); idem, Orn. 13, p. 108, 1906—Huaynapata; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1024, 1912—southeastern Peru.

*Range*.—Subtropical zone of southeastern Peru, in Dept. of Puno (Huaynapata, Marcapata; Santo Domingo).

**\*Chlorochrysa nitidissima** Sclater. SALMON'S CHLOROCHRYSA.

*Chlorochrysa nitidissima* Sclater, Proc. Zool. Soc. Lond., 1873, p. 728—State of Antioquia, Colombia (type in coll. of P. L. Sclater, now in British Museum); idem, Ibis, 1875, p. 466, pl. 10—Antioquia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 498—Jerico, Colombia; Sclater, Cat. Eds. Brit. Mus., 11, p. 91, 1886—Jerico, Antioquia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1024, 1912—Antioquia and "Bogotá"; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1101—Siató, Rio Siató, and Pueblo Rico, Colombia (descr. of young); Chapman, Bull. Amer. Mus. N. H., 36, p. 592, 1917—Las Lomitas, San Antonio, Gallera, and Salento, Colombia.

*Range*.—Subtropical zone of the western and central and probably also of the eastern Andes of Colombia.<sup>1</sup>

1: Colombia ("Bogotá," 1).

Genus **PIPRAEIDEA** Swainson

*Pipraeidea* Swainson, Zool. Journ., 3, p. 173, 1827—type, by monotypy, *Pipraeidea cyanea* Swainson=*Tanagra melanonota* Vieillot.

*Pipridea* Sclater, Proc. Zool. Soc. Lond., 24, p. 265, 1856 (emendation).

**\*Pipraeidea melanonota melanonota** (Vieillot). DARK-BACKED TANAGER.

*Tanagra melanonota* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 407, 1819—Brazil, coll. Delalande, Jr., = Rio de Janeiro (type in Paris Museum).

*Tanagra vittata* Temminck, Nouv. Rec. Pl. Col., livr. 8, pl. 48, March, 1821—Brazil (type probably in Leiden Museum).

*Tanagra melanotha* Vieillot, Tabl. Enc. Méth., Orn., livr. 91, p. 773, 1822—emendation of *T. melanonota* Vieillot.

<sup>1</sup> Though definitely recorded only from the western and central Andes, this isolated species probably also occurs in the eastern Andes, as it is occasionally met with in native "Bogotá" collections.

*Additional material examined*.—Western Andes: Riolima, 2; Siató, 1; Pueblo Rico, 1; Antioquia, 1.—"Bogotá," 2.



- Pipraeidea cyanea* Swainson, Zool. Journ., 3, p. 174, 1827—Brazil (type in coll. of W. Swainson, now in University Museum, Cambridge, Engl.).
- Aglaia vittata* Gould, in Darwin, Zool. Beagle, 3, p. 98, 1841—Maldonado, Uruguay.
- Procnopis melanota* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 80, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 190, 1856—Nova Friburgo, Rio.
- Calliste melanonota* Sclater, Contrib. Orn., July, 1851, p. 60 (monog.).
- Pipridea melanonota* Sclater, Proc. Zool. Soc. Lond., 24, p. 265, 1856—Brazil, Uruguay, and Paraguay (monog.); Pelzeln, Orn. Bras., 3, p. 205, 1870—Rio de Janeiro, São Paulo (Ypanema, Cemeterio), and Paraná (Curytiba); Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 118, 1885—Taquara, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 92, 1886—part, spec. a-i, Bahia, "Rio Claro, Goyáz," and Pelotas, Brazil; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio de Janeiro; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 4, 1895—San Pablo, Tucumán; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 118, 1899—Mundo Novo; idem, Rev. Mus. Paul., 3, p. 146, 1899—São Paulo (Piracicaba, Iporanga); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; Chubb, Ibis, 1910, p. 624—Sapucay, Paraguay; Ménégau, Rev. Franç. d'Orn., 11, p. 7, 1919—Villa Lutetia, Misiones; [Anonymous], El Hornero, 3, p. 427, 1926—Moreno, Prov. Buenos Aires.
- Pipraeidea melanonota* Allen, Bull. Amer. Mus. N. H., 3, p. 351, 1891—Chapada, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 350, 1907—São Paulo (Ypiranga, Campos de Jordão, Itararé, São José do Rio Pardo, Iporanga) and Rio Grande do Sul (Novo Hamburgo); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 374, 1910—part, Buenos Aires (Barracas al Sud); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1024, 1912—Bahia to Rio Grande do Sul and "Goyáz"; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 486, 499, 1912—Vera Guarany, Paraná; Dabbene, Bol. Soc. Physis, 1, p. 361, 1914—Barracas (Buenos Aires) and Santa Ana (Misiones); Bertoni, Faun. Parag., p. 62, 1914—Alto Paraná; Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay (Canelones, Florida); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 192, 1926—Paraná (Rio Claro, Fazenda Firmiano); Pereyra, El Hornero, 4, p. 27, 1927—Moreno (F.C.O.), Argentina.
- Pepraeidea* [sic] *melanonota* Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1905—Morro dos Carneiros and Retiro do Ramos, Itatiaya.
- Pipridaea melanonota melanonota* Holt, Bull. Amer. Mus. N. H., 57, p. 320, 1928—Itatiaya; Naumburg, l.c., 60, p. 371, 1930—Matto Grosso (range).
- Pipridea melanonota melanonota* Hartert and Venturi, Nov. Zool., 16, p. 170, 1909—Barracas al Sud, Prov. Buenos Aires.
- Pipraeidea* [sic] *melanonota* Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Retiro do Ramos, Itatiaya.
- Pipraeidea melanonota* Marelli, Mem. Min. Obr. Publ. for 1922-23, p. 656, 1924—Buenos Aires (Barracas al Sud).

*Range*.—Wooded region of southeastern Brazil from Bahia to Rio Grande do Sul, west to Matto Grosso; Uruguay; Paraguay; northeastern Argentina (Misiones; Barracas al Sud and Moreno, Buenos Aires).<sup>1</sup>

12: Brazil (Therezopolis, Rio de Janeiro, 1; Joinville, Santa Catharina, 5; Urucúm de Corumbá, Matto Grosso, 1); Paraguay (Carayeni, 1); Argentina, Misiones (Caragatay, 2; Eldorado, 2).

\**Pipraeidea melanonota venezuelensis* (Sclater).<sup>2</sup> WESTERN DARK-BACKED TANAGER.

*Pipraeidea venezuelensis* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 265, pub. Jan. 26, 1857—Caracas, Venezuela (type in Paris Museum); idem, l.c., 28, p. 65, 1860—Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 61, 1862—Nanegal, Ecuador, and Caracas, Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida, Venezuela; Wyatt, Ibis, 1871, p. 325—Canuto, Colombia.

*Pipraeidea melanonota* (not *Tanagra melanonota* Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 226—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 598—Tilotilo, Prov. Yungas, Bolivia; Taczanowski, l.c., 1882, p. 10—Huambo, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 92, 1886—part, spec. j-g, Bolivia (Tilotilo), Venezuela (Caracas), Ecuador (Intag, Nanegal, "Quito"); Sclater and Hudson, Arg. Orn., 1, p. 37, 1888—Tucumán; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 175, 1902—Tucumán (Tafi Viejo, Yerba-buena, San Pablo); idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—same localities; Dabbene, Anal. Mus. Nac. Hist. Nat., 18, p. 374, 1910—part, Tucumán; Berlepsch and Stolzmann, Orn., 13, pp. 78, 109, 1906—Idma (Urubamba), Iscaybamba and Huaynapata (Marcapata), Peru.

*Pipraeidea melanota* Baer, Orn., 12, p. 215, 1904—Santa Ana, Tucumán.

*Pipraeidea melanonota venezuelensis* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 289—Cayanded, Ecuador; Taczanowski, Orn. Pér.,

<sup>1</sup> The few Argentine specimens that I have seen are extremely typical of the present form, and compare well with others from Brazil.

*Additional material examined*.—Brazil: Bahia, 3; Rio de Janeiro, 8; São Paulo, Ypanema, 5; Fazenda Cayoá, Rio Paranapanema, 2; Paraná, Curytiba, 2; Roça Nova, Serra do Mar, 2; Joinville, Santa Catharina, 1.—Argentina: Barracas al Sud, Prov. Buenos Aires, 1.

<sup>2</sup> *Pipraeidea melanonota venezuelensis* (Sclater) differs from the typical race by decidedly paler, buffy rather than deep ochraceous under parts and darker, more blackish blue intercapular region. I cannot, however, corroborate either the smaller bill or the shorter tail. Birds from Peru (Huaynapata), Bolivia, and Argentina average very slightly larger than those from more northern localities.

*Additional material examined*.—Venezuela: mountains inland of Cumaná, 1; Galipán, Cerro del Avila, 1; Las Quiguas, San Esteban Valley, Carabobo, 2; Sierra of Mérida (Mérida, Valle, Escorial, Culata), 28.—Colombia: "Bogotá," 3.—Ecuador: Ibarra, 1; west side of Pichincha, 1; Papallacta, 2; "Ambato," 1.—Peru: Idma, Urubamba, 1.—Bolivia: San Mateo, Cochabamba, 4.—Argentina: San Francisco, Jujuy, 1; Villa Nougues, San Pablo, Tucumán, 4; Tafi Viejo, 4; Cerro de Tucumán, 1.

2, p. 450, 1884—Peru (Tambillo, Cutervo to Socota, Huambo); Hartert, Nov. Zool., 5, p. 481, 1898—Ibarra, Ecuador; Hartert and Venturi, l.c., 16, p. 170, 1909—Cerro de Tucumán and Tucumán; Chubb, Ibis, 1910, p. 624 (in text)—Ecuador (crit.); Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Équat., 9, p. B. 92, 1911—Gualea, Ecuador.

*Pipridea melanota venezuelensis* Goodfellow, Ibis, 1901, p. 460—Pichincha and Papallacta, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 592, 1917—Colombia (Rio Lima, Popayán, Aguadita, Tenasuca).

*Pipraeidea melanota venezuelensis* Chapman, Bull. U. S. Nat. Mus., 117, p. 117, 1921—San Miguel Bridge, Urubamba, Peru.

*Pipraeidea melanonota venezuelensis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1024, 1912—Venezuela to Bolivia and Tucumán (excl. Paraguay); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 175, 1924—Galipán, Cerro del Avila, Venezuela (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 654, 1926—Zamora, Ecuador.

*Range.*—Subtropical zone of Venezuela (north coast mountains from Sucre to Mérida), Colombia, Ecuador, Peru, Bolivia, and northwestern Argentina (Jujuy to Tucumán).

8: Colombia (“Bogotá,” 3); Venezuela (Escorial, 1; Montañas Sierra, 1); Argentina (Concepción, Tucumán, 2; Villa Nougues, San Pablo, Tucumán, 1).

### Genus PSEUDODACNIS Slater<sup>1</sup>

*Pseudodacnis* Slater, Cat. Bds. Brit. Mus., 11, p. 138, 1886—type, by monotypy, *Dacnis hartlaubi* Slater.

#### *Pseudodacnis hartlaubi* (Slater). HARTLAUB'S PSEUDODACNIS.

*Dacnis hartlaubi* Slater, Proc. Zool. Soc. Lond., 22, “1854,” p. 251, pub. April, 1855—“Nova Grenada” (type in Bremen Museum).

<sup>1</sup> The systematic position of this peculiar genus is doubtful and cannot be determined until its anatomy has been studied. Although originally described as a *Dacnis*, it was afterwards referred to the tanagers by both Cabanis and Slater. The late Count Berlepsch (Verh. 5th Intern. Orn. Kongr. Berlin, p. 1003, 1912), however, excludes it from this family without indicating its affinities. After examining a small series, I find that, compared to *Dacnis*, the bill is much shorter, stouter, and more elevated, not unlike that of *Calospiza* in shape, though considerably longer. In coloration, on the other hand, *P. hartlaubi* strikingly recalls certain species of *Dacnis*. Viewed from above, it looks exactly like *Dacnis lineata*, but may be easily separated by the black gular patch and by lacking the white area on the breast and sides. The heretofore undescribed female is dull brown above with pale greenish edges and tips, especially on rump and scapulars; the greater upper wing coverts are dusky, apically and externally margined with whity brown; wings and tail dusky brown, the inner secondaries with pale outer edges; lores and sides of head light olivaceous brown; under parts buffy grayish, tinged with olive and passing into yellowish white along the middle line; under tail coverts buffy; axillaries and under wing coverts dingy white; bill black with extreme base of lower mandible whitish.

The habitat of this bird is very imperfectly known. In addition to eight skins of the common “Bogotá” preparation, I have examined an adult male collected by Raap at (or rather above) Juntas, Rio Dagua, at an elevation of 1,200 feet.

*Callispiza hartlaubii* Cabanis, Journ. Orn., 9, p. 88, 1861—New Granada (crit.).

*Calliste hartlaubi* Sclater, Ibis, 1863, p. 452 (crit.); idem, Ibis, 1876, p. 410—Bogotá.

*Pseudodacnis hartlaubi* Sclater, Cat. Bds. Brit. Mus., 11, p. 138, 1886—Bogotá.

*Range*.—Tropical zone of Colombia (above Juntas, Rio Dagua; "Bogotá" collections).

### Genus CALOSPIZA G. R. Gray<sup>1</sup>

*Calliste* (not *Callista* Poli, 1791) Boie, Isis, 1826, p. 974—type, by virtual monotypy, *Tanagra tricolor* Gmelin=*Tanagra seledon* P. L. S. Müller.

*Aglaia* (not of Renier, 1804) Swainson, Zool. Journ., 3, p. 347, 1827—type, by orig. desig., *Tanagra tatao* auct.=*Aglaia paradisea* Swainson.

*Calospiza* G. R. Gray, List Gen. Bds., p. 44, 1840—type, by orig. desig., *Tanagra tricolor* Gmelin=*Tanagra seledon* P. L. S. Müller.

*Procnopis* Cabanis,<sup>2</sup> Arch. Naturg., 10, (1), p. 284, 1844—type, by orig. desig., *Procnopis atrocoerulea* Tschudi.

*Callospiza* Tschudi, Arch. Naturg., 10, (1), p. 286, 1844 (emendation of *Calospiza* Gray).

*Gyrola* Reichenbach, Av. Syst. Nat., pl. 77, 1850; Bonaparte, Rev. Mag. Zool., (2), 3, p. 139, 1851—type, by tautonymy, *Fringilla gyrola* Linnaeus.

*Chalcothraupis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 131, 1851—type, by monotypy, *Tanagra ruficervix* Prévost and Des Murs.

*Chrysothraupis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 142, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 73, 1855), *Tanagra arthus* Lesson.

*Ixothroaupis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 143, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 73, 1855), *Tanagra punctata* Linnaeus.

*Euschemon* Sclater, Contrib. Orn., 1851, p. 95—type, by monotypy, *Tanagra flava* Gmelin.

*Euprepiste* Sclater, Contrib. Orn., 1851, p. 96—type, by monotypy, *Tanagra brasiliensis* Linnaeus.

*Diva* Sclater, Tanag. Cat. Specif., p. 16, 1854—type, by orig. desig., *Tanagra* (*Euphone?*) *vassorii* Boissonneau.

*Callispiza* Cabanis, Journ. Orn., 9, p. 87, 1861 (emendation of *Calospiza* Gray).

### *Calospiza chilensis paradisea* (Swainson). PARADISE TANAGER.

*Aglaia paradisea* Swainson, Nat. Hist. Classif. Bds., 2, p. 286, 1837—based on "Tangara du Brésil" Daubenton, Pl. Enl., pl. 127, fig. 1 [=fig. 2], Brazil;

<sup>1</sup> I cannot make out *Calliste catamania* Bonaparte (Rev. Mag. Zool., (2), 3, p. 139, 1851), described as "Viridis, vertice crissoque rufescentibus." No locality is indicated. Although the type is credited to the Leiden Museum, the name has never been quoted again in literature. According to G. C. W. Junge (in litt.), the specimen cannot be found in the collections at Leiden.

<sup>2</sup> Cf. De W. Miller, Auk, 36, pp. 576-577, 1919.



the specimen is much more likely to have come from Cayenne, French Guiana.

*Tatao paradiseus* Bonaparte, Rev. Mag. Zool., (2), 3, p. 141, 1851—Cayenne and "Brazil" (diag.).

*Calliste tatao* (not *Tanagra tatao* Linnaeus?)<sup>1</sup> Bonaparte, Consp. Gen. Av., 1, (2), p. 234, 1850—Cayenne and "Brazil"; Sclater, Contrib. Orn., 1851, p. 50—Cayenne; Burmeister, Syst. Uebers. Th. Bras., 3, p. 187, 1856—"lower Amazon, south to Pernambuco and Bahia," errore; Sclater, Proc. Zool. Soc. Lond., 24, p. 244, 1856—part, Cayenne (diag.); idem, Monog. Genus Calliste, p. 1, pl. 1, fig. 1, 1857—part, Cayenne; idem, Cat. Coll. Amer. Bds., p. 62, 1862—Cayenne; Dubois, Bull. Acad. Roy. Belg., 38, p. 128, 1874—Rio Negro and Guianas; Sclater, Cat. Bds. Brit. Mus., 11, p. 96, 1886—part, spec. a-d, Cayenne; Penard, Vog. Guyana, 2, p. 432, 1910 Surinam.

*Calospiza tatao* Ihering, Cat. Faun. Braz., 1, p. 351, 1907—part, "Guyana, Amazonas, Rio Negro, Pernambuco" (errore).

*Tanagra talao* [sic] Desmarest, Hist. Nat. Tang., text to pl. 1,<sup>2</sup> 1805—French Guiana (Ile de Cayenne).

*Calliste coelicolor* (not of Sclater) Pelzeln, Orn. Bras., 3, p. 205, 1870—part, Barra do Rio Negro [=Manáos] (spec. examined).

*Calospiza paradisea coelicolor* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1026, 1912—part, Manáos, Brazil.

*Calospiza paradisea* Berlepsch, Nov. Zool., 15, p. 113, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1026, 1030, 1912—Cayenne and (?) Surinam.

*Range.*—French and Dutch Guiana, and northern Brazil (Manáos).<sup>3</sup>

<sup>1</sup> I am inclined to agree with Berlepsch and Hartert (Nov. Zool., 9, p. 18, 1902) that *Tanagra tatao* Linnaeus (Syst. Nat., 12th ed., 1, p. 315, 1766) is of questionable pertinence. While two of his references, "The Tit-mouse of Paradise" of Edwards (Glean. Nat. Hist., 3, p. 289, pl. 349; "Guiana") and "Le Tangara" of Brisson (Orn., 3, p. 3, pl. 1, fig. 1; Cayenne) clearly describe the Paradise Tanager, the "*Tanagra brasiliensis*" of Marcgrave (Hist. Nat. Bras., p. 214, pl. 215) is not that species, but possibly refers to *C. fastuosa*. From Linnaeus's ambiguous diagnosis it cannot be concluded with any degree of certainty which one of the three references served as basis for his *Tanagra tatao*. Seba's "Avicula de Tatao," which supplied the specific name, is rather obscurely described and seems to point to some species with green upper, and spotted under parts, perhaps *C. punctata*.

*Tanagra viridis* P. L. S. Müller (Natursyst., Suppl., p. 158, 1776) is based on "Tangara" Daubenton, Pl. Enl., pl. 7, fig. 1, an artifact composed of the body of *Calospiza c. paradisea* and the tail of a parrot (*Urochroma batavica*).

<sup>2</sup> The legend on the plate, "*Tangara septicolor*," is the French vernacular name.

<sup>3</sup> Five specimens from French Guiana and one from Surinam agree well together. The only available Brazilian bird, an adult female from Manáos, is identical in all essential points, and differs merely by deeper cadmium yellow rump, the absence of greenish yellow tips to the longest uropygial plumes, and by having the golden green hood more extended posteriorly. In the last-named, though in no other respect, the Manáos bird approaches the western *C. c. coelicolor*.

*Material examined.*—French Guiana: Cayenne, 4; Saint-Jean-du-Maroni, 1.—Surinam: near Paramaribo, 1.—Brazil: Manáos, 1.

\**Calospiza chilensis coelicolor* (Sclater).<sup>1</sup> WESTERN PARADISE  
TANAGER.

*Calliste coelicolor* Sclater, Contrib. Orn., 1851, p. 51—"Anolaima," Colombia (type in coll. of P. L. Sclater, now in British Museum); idem, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 245, 1856—"Bogotá" (descr.); idem, Monog. Gen. Calliste, p. 3, pl. 1, fig. 2, 1857—"Bogotá" (monog.); idem, Cat. Coll. Amer. Bds., p. 62, 1862—"Anolaima"; Pelzeln, Orn. Bras., 3, p. 205, 1870—part, Marabitanas, Rio Xié, and Rio Içanna, Brazil (spec. examined); Dubois, Bull. Acad. Roy. Belg., 38, p. 126, 1874 (crit.).

*Tanagra tatao* (not of Linnaeus) Schomburgk, Reisen Brit. Guiana, 2, p. 245, 1848—"Our Village," Kukenam Valley, south of Roraima.

*Calospiza tatao* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 669, "1848" [=1849]—vicinity of Roraima.

*Calliste tatao* Sclater, Proc. Zool. Soc. Lond., 24, p. 244, 1856—part, British Guiana (Schomburgk) and upper Rio Negro (Wallace); idem, Monog. Gen. Calliste, p. 1, 1857—part, British Guiana and upper Rio Negro; Salvin, Ibis, 1885, p. 209—Merumé Mountains and Roraima, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 96, 1886—part, spec. e-q, British Guiana (Merumé Mountains, Roraima), Marabitanas, and Colombia ("Bogotá," "Anolaima"); Ihering, Cat. Faun. Braz., 1, p. 351, 1907—part, Colombia ("Bogotá").

*Calliste tatao* var. *a coelicolor* Dubois, Bull. Acad. Roy. Belg., 38, p. 128, 1874—Colombia.

*Calliste paradisea* (not *Aglaiã paradisea* Swainson) Berlepsch and Hartert, Nov. Zool., 9, p. 18, 1902—Suapuré and Nicare, Caura, Venezuela; André, Naturalist in the Guianas, p. 190 (col. pl.), 1904—Nicare River, Venezuela.

*Tangara paradisea* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 172, 1916—Caura Valley, Venezuela; Chubb, Bds. Brit. Guiana, 2, p. 504, 1921—British Guiana (Roraima, Merumé Mountains, Ireng River).

<sup>1</sup> *Calospiza chilensis coelicolor* (Sclater): Nearest to *C. c. paradisea*, but larger and with differently colored upper wing coverts. The smaller series, excepting a half-concealed restricted yellow green spot at the humeral edge, are shining cendre blue, forming a large pale blue area, whereas only the terminal row of the median coverts is violet blue like the throat. The scarlet of the middle back as a rule is somewhat darker and more extensive, the rump cadmium yellow rather than light cadmium, etc. Wing, 76–81, (female) 74–77; tail, 52–60.

While birds from the upper Rio Negro agree with "Bogotá" skins, those from British Guiana and Venezuela (Caura Valley), in coloration, frequently show an approach to *C. c. paradisea*, though, taken as a whole, they are nearer to *C. c. coelicolor*, which they resemble in dimensions. The distribution of this form in Colombia remains to be determined. Although common in "Bogotá" collections, it has not actually been collected at any definite locality, and its range in Colombia is probably confined to the Tropical zone at the eastern base of the eastern Andes north of the Guaviare River. The type locality "Anolaima"—a place on the Magdalena slope of the eastern Andes—can hardly be correct.

*Additional material examined.*—British Guiana: Roraima, 1; Merumé Mountains, 2.—Venezuela: Suapuré, Caura, 2; Nicare, Caura district, 10.—Brazil: Marabitanas, 1; Rio Xié, 1; Rio Içanna, 1.—Colombia: "Bogotá," 25.

*Calliste tatao coelicolor* Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá."

*Calospiza paradisea coelicolor* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1026, 1912—part, Colombia ("Bogotá," "Anolaima"), British Guiana (Roraima, Merumé Mountains), Venezuela (Caura Valley), and Brazil (Marabitanas, Rio Içanna, Rio Xié); Sneathlage, Bol. Mus. Goeldi, 8, p. 443, 1914—Cassiquiare.

*Tangara paradisea caelicolor* Chapman, Bull. Amer. Mus. N. H., 63, p. 127, 1931—Roraima (Paulo, Arabupu), foot of Duida, and Rio Uaupés (crit.).

*Range.*—Western British Guiana (Roraima and Merumé Mountains), southern Venezuela (Caura Valley; foot of Mount Duida; Cassiquiare), and adjoining parts of Brazil (upper Rio Negro and tributaries), extending obviously to the eastern base of the eastern Andes of Colombia (common in native "Bogotá" collections).

2: British Guiana (Roraima, 1); Colombia ("Bogotá," 1).

**\**Calospiza chilensis chlorocorys* (Zimmer).<sup>1</sup> PERUVIAN PARADISE TANAGER.**

*Tangara chilensis chlorocorys* Zimmer, Proc. Biol. Soc. Wash., 42, p. 91, 1929—Vista Alegre, junction of the Chinchao and Huallaga rivers, Prov. Huánuco, Peru (type in Field Museum); idem, Field Mus. Nat. Hist., Zool. Ser., 17, p. 439, 1930—Vista Alegre and Huachipa, Peru.

*Calliste coelicolor* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 11—Huambo (spec. examined); idem, Orn. Pér., 2, p. 458, 1884—Huambo.

*Calliste tatao* (not *Tanagra tatao* Linnaeus) Sclater, Cat. Bds. Brit. Mus., 11, p. 96, 1886—part, spec. r, Huambo.

*Calospiza paradisea coelicolor* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1026, 1912—part, northeastern Peru (Huambo, Huayabamba).

*Range.*—Eastern Peru, in the Tropical zone of the upper Huallaga River, from the Huayabamba River and its tributaries south to the Chinchao River.

10: Peru (Nuevo Loreto, near Tayabamba, 3; Vista Alegre, Huánuco, 4; Huachipa, Huánuco, 3).

**\**Calospiza chilensis chilensis* (Vigors). RED-RUMPED PARADISE TANAGER.**

*Aglaia chilensis* Vigors, Proc. Comm. Sci. Corr. Zool. Soc. Lond., 2, p. 3, 1832—no locality stated, but presumed to be "Chile"=Bolivia (as sub-

<sup>1</sup>*Calospiza chilensis chlorocorys* (Zimmer): Very similar to *C. c. coelicolor*, but on average larger; black frontal band narrower, reduced to a mere edge; green cap farther extended posteriorly and of a brighter, more yellowish green hue; rump generally slightly paler yellow. Wing, 78–82, (female) 76–79; tail, 54 (female), 61 (male).

The range of this form, restricted to certain valleys of the upper Huallaga basin, is entirely cut off from that of the Western Paradise Tanager by the inter-

stituted by Hellmayr and Berlepsch) (type in coll. of H. Cuming, doubtless lost).

*Aglaiya yeni* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 31, 1837—Yuracares, Bolivia (types in Paris Museum examined).

*Tanagra yeni* d'Orbigny, Voy. Amér. Mérid., Ois., p. 270, pl. 24, fig. 2, 1839—Yungas and Yuracares, Bolivia.

*Callospiza yeni* Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 201, 1846—wood region of eastern Peru.

*Calliste yeni* Bonaparte, Consp. Gen. Av., 1, (1), p. 250, 1850—Bolivia; Sclater, Contrib. Orn., 1851, p. 51—Bolivia and Peru; idem, Proc. Zool. Soc. Lond., 24, p. 245, 1856—Bolivia (Yuracares, Yungas) and River Ucayali, Peru (descr.); idem, Monog. Gen. Calliste, p. 5, pl. 2, 1857—Bolivia and Peru (monog.); idem, Proc. Zool. Soc. Lond., 26, p. 453, 1858—Gualaquiza, Ecuador; Sclater and Salvin, l.c., 1866, p. 180—upper Ucayali, Peru; idem, l.c., 1867, pp. 749, 977—Xeberos, Chyavetas, and Pebas, Peru; Pelzeln, Orn. Bras., 3, p. 206, 1870—Engenho do Gama, Matto Grosso, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 261—upper Ucayali, Nauta, Xeberos, Chyavetas, and Pebas, Peru; Sclater, l.c., 1873, p. 780—Cosnipata, Peru; Taczanowski, l.c., 1874, p. 514—Monterico, Peru; Sclater and Salvin, l.c., 1879, p. 598—Typuani and Tilotilo, Yungas, Bolivia; Taczanowski, l.c., 1882, p. 11—Yurimaguas, Peru; idem, Orn. Pér., 2, p. 457, 1884—Peru (Monterico, Ucayali, Chyavetas, Xeberos, Pebas, Yurimaguas, Quebrada de San Gaban, Carabaya); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 77—Machay, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 97, 1886—Bolivia (Typuani, Tilotilo), Peru (Pebas), and Ecuador (Sarayacu, Rio Napo); Allen, Bull. Amer. Mus. N. H., 2, pp. 71, 81, 1889—Rio Napo, Ecuador, and Mapiri, Bolivia; Berlepsch, Journ. Orn., 37, p. 296, 1889—Sarayacu (Ucayali) and Cumbase, near Tarapoto, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Gualaquiza and Zamora, Ecuador; Goodfellow, Ibis, 1901, p. 460—Rio Coca, Ecuador, and Iquitos, Peru.

*Calliste tatao* var. *β yeni* Dubois, Bull. Acad. Roy. Belg., 38, p. 128, 1874 (range).

*Calliste chilensis* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 339—La Merced, Chanchamayo, Peru.

*Calospiza chilensis* Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá, Brazil; Berlepsch and Stolzmann, Ornith., 13, p. 109, 1906—Huaynapata and Rio Cadena, Peru; Ihering, Cat. Faun. Braz., 1, p. 351, 1907—Rio Juruá (range); Sneath, Journ. Orn., 56, p. 9, 1908—Cacheira and Bom Lugar, Rio Purús, Brazil; Hellmayr, Nov. Zool., 17, p. 273, 1910—Calama, Rio Madeira; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 92, 1911—Macas, Rio Napo, and Gualaquiza, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1026, 1912—from

position of *C. c. chilensis*, as has been explained at length by its describer. The differences separating it from *C. c. coelicolor*, though slight and sometimes obliterated by individual variation, are quite noticeable when series are compared.

*Additional material examined.*—Peru: Huambo, 2; Huayabamba, 14.



southeastern Colombia (Rio Putumayo) through eastern Ecuador and Peru to Bolivia and western Brazil; Sneath, *Bol. Mus. Goeldi*, 8, p. 443, 1914—Rio Purús (Cachoeira, Bom Lugar); Berlioz, *Bull. Mus. Hist. Nat. Paris*, 31, p. 233, 1925—Canelos, Ecuador.

*Tangara chilensis* Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 593, 1917—Andalucia, head of Magdalena Valley, and Florencia, Caquetá, Colombia; Bangs and Noble, *Auk*, 35, p. 459, 1918—Charapi, Prov. Jaen, Peru; Chapman, *Bull. U. S. Nat. Mus.*, 117, p. 117, 1921—Rio Cosireni and Rio Comerciato, Urubamba, Peru; Hellmayr, *Nov. Zool.*, 30, p. 236, 1923—Yuracares, Bolivia (note on types); Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 655, 1926—eastern Ecuador (Guayaba, Rio Zamora; Zamora; below San José; Rio Suno); Naumburg, *l.c.*, 60, p. 371, 1930—Rio Roosevelt, Matto Grosso.

*Tangara chilensis chilensis* Zimmer, *Field Mus. Nat. Hist., Zool. Ser.*, 17, p. 439, 1930—Rio Colorado, Chanchamayo, Peru.

*Range.*—Tropical zone of Upper Amazonia, from southern Colombia (Andalucia, head of Magdalena Valley; Florencia and Rio Putumayo, Caquetá) through eastern Ecuador and eastern Peru (excepting certain valleys of the upper Huallaga drainage) to northern Bolivia and the adjacent districts of western Brazil (Rio Juruá; Rio Purús; Rio Roosevelt and Rio Guaporé, northwestern Matto Grosso; Calama, Rio Madeira).<sup>1</sup>

15: Peru (Rio Colorado, Chanchamayo, 4; Moyobamba, 8; Yahuas, near Pebas, 1; Rioja, 1); Ecuador (Sarayacu, 1).

### *Calospiza fastuosa* (Lesson).<sup>2</sup> SUPERB TANAGER.

*Tanagra fastuosa* Lesson, *Cent. Zool.*, p. 184, pl. 58, circa 1831—Brazil (type in coll. of M. Parhuít, doubtless lost).

<sup>1</sup> I cannot make out any racial variation between a topotypical Bolivian series and others from northern Peru, Ecuador, and Colombia. *C. c. chilensis*, while agreeing with *C. c. chlorocorys* and *C. c. coelicolor* in the large extent of the cendre blue patch on the upper wing coverts and long cap, is readily distinguished by having the rump scarlet like the lower back. Yet one of our Moyobamba birds has these parts orange chrome, exactly intermediate between the normal red of *chilensis* and the yellow of the two other western races. The occurrence of this mutant, taken in conjunction with the fact that the Moyobamba series and other individuals from northern Peru in the tone of the green hood connect typical *chilensis* with *C. c. chlorocorys*, plainly indicates intergradation and leads us to unite the red-rumped *chilensis* and the Paradise Tanagers with bicolored lower back in a single specific entity, as has first been suggested by Zimmer.

*Additional material examined.*—Colombia: Cuembí, Rio Putumayo, 4.—Ecuador: San José, 2; Rio Napo, 1; Sarayacu, 3.—Peru: Iquitos, 15; Huaynapata, Marcapata, 3; Caradoc, Marcapata, 1.—Bolivia: Yuracares, 2; San Mateo, 12.—Brazil: Engenho do Gama, Matto Grosso, 1; Calama, Rio Madeira, 1.

<sup>2</sup> A very peculiar species with remarkably large bill. The only specimens from precise localities that we have seen are those collected by the late W. A. Forbes in the State of Pernambuco, all the others being either cage-birds or merely marked "Brazil." Whether this species really extends south into Bahia is extremely doubtful, but it may be expected to occur in Alagôas, Parahyba, and Rio Grande do Norte, concerning which there are few published records.

*Calliste fastuosa* Bonaparte, *Consp. Gen. Av.*, 1, (1), p. 235, 1850—Brazil; Sclater, *Contrib. Orn.*, 1851, p. 52—Brazil; idem, *Proc. Zool. Soc. Lond.*, 24, p. 246, 1856—Pernambuco, Brazil (descr.); idem, *Monog. Gen. Calliste*, p. 9, pl. 4, 1857—Pernambuco (monog.); idem, *Cat. Coll. Amer. Bds.*, p. 62, 1862—Pernambuco; Forbes, *Ibis*, 1881, p. 331—Macuca, Quipapá, and Cabo, Pernambuco; Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 98, 1886—Pernambuco.

*Calospiza fastuosa* Ihering, *Cat. Faun. Braz.*, 1, p. 351, 1907—Pernambuco; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1026, 1912—Pernambuco and (?)Bahia.

*Range*.—Eastern Brazil, in State of Pernambuco (Macuca; Quipapá; Cabo).

\**Calospiza seledon* (P. L. S. Müller). GREEN-HEADED TANAGER.

*Tanagra seledon* P. L. S. Müller,<sup>1</sup> *Natursyst., Suppl.*, p. 158, 1776—based on "Tangara varié à tête verte de Cayenne" Daubenton, *Pl. Enl.*, pl. 33, fig. 1; "Cayenne," errore=Rio de Janeiro (auct. Berlepsch, 1912).

*Tanagra tricolor* Gmelin,<sup>2</sup> *Syst. Nat.*, 1, (2), p. 891, 1789—based on "Le Tangara varié à teste verte de Cayenne" Brisson (*Orn.*, 6, *Suppl.*, p. 59, pl. 4, fig. 1), "Le Tricolor" Buffon and Daubenton, *Pl. Enl.*, pl. 33, fig. 1; "Cayenne" (errore).

*Calliste septemcolora* Bertoni, *Revista de Agronomía y Cienc. Aplic. (Bol. Escuela de Agric. Asunción)*, 1, p. 530, 1899—Paraguay (type in coll. of A. de W. Bertoni); idem, *Anal. Cient. Parag.*, 1, p. 89, 1901—Alto Paraná, Paraguay.

*Tanagra tatao* (not of Linnaeus) Wied, *Beitr. Naturg. Bras.*, 3, (1), p. 459, 1830—Rio de Janeiro, Cabo Frio, Gurapina, etc., Rio (habits); (?)d'Orbigny, *Voy. Amér. Mérid., Ois.*, p. 270, 1839—St. Christophe, near Rio de Janeiro (cf. Hellmayr, *Nov. Zool.*, 30, p. 236, 1923).

*Calliste tricolor* Bonaparte, *Consp. Gen. Av.*, 1, (1), p. 234, 1850—Brazil; Sclater, *Contrib. Orn.*, 1851, p. 51—Brazil; idem, *Proc. Zool. Soc. Lond.*, 24, p. 246, 1856—Brazil (descr.); Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 187, 1856—Rio de Janeiro to Bahia, Nova Friburgo (habits); Sclater, *Monog. Gen. Calliste*, p. 7, pl. 3, 1857—Rio to Bahia (monog.); Pelzeln, *Reise Novara, Zool.*, 1, *Vögel*, p. 91, 1865—Corcovado, Rio de Janeiro; Euler, *Journ. Orn.*, 15, p. 410, 1867 (nest and eggs); Pelzeln, *Orn. Bras.*, 3, p. 206, 1870—Rio de Janeiro (Rio de Janeiro, Registro do Sai) and São Paulo (Ypanema); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 99, 1886—Bahia, Rio de Janeiro, "Pelotas, Rio Grande do Sul," and "Rio Claro, Goyáz," errore; Boucard and Berlepsch, *The Humming Bird*, 2, p. 43, 1892—Porto Real, Rio de Janeiro; Ihering, *Rev. Mus. Paul.*, 3, p. 146, 1899—Iguapé, São Paulo; idem, *l.c.*, 4, p. 153, 1900—Cantagallo and Nova Friburgo.

<sup>1</sup> Although Müller's description is faulty ("der Rücken, die Kehle und der Bürzel sind gelb") as in other cases where similar evidences for the author's carelessness may be noticed, his name is clearly based on Daubenton's figure cited above, a good representation of the Green-headed Tanager.

<sup>2</sup> Gmelin's variety "β" does not belong here. This is *C. cyanocephala* (P. L. S. Müller).

- Tatao tricolor* Bonaparte, Rev. Mag. Zool., (2), 3, p. 141, 1851—Brazil.
- Callispiza tricolor* Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio.
- Calospiza tricolor* Ihering, Cat. Faun. Braz., 1, p. 351, 1907—São Paulo (Iguapé, Alto da Serra, Santos, Ubatuba) and Espirito Santo (Irará, Porto Cachoeiro) (range); Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 375, 1910—Misiones and Paraguay (Alto Paraná).
- Calospiza seledon* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1027, 1131, 1912—Brazil (Bahia to Santa Catharina) and Paraguay.
- Tangara seledon* Dabbene, Bol. Soc. Physis, 1, p. 362, 1914—Misiones (Iguazú and Santa Ana); Hellmayr, Verh. Orn. Ges. Bay., 12, p. 128, 1915—Victoria, Espirito Santo; Pereyra, El Hornero, 4, p. 33, 1927—Misiones.

*Range*.—Wooded region of southeastern Brazil, from southern Bahia to Santa Catharina, and the Argentine Territory of Misiones, including the adjacent stretches of eastern Paraguay (Alto Paraná).<sup>1</sup>

14: Brazil (Bahia, 2; Rio de Janeiro, 9; Joinville, Santa Catharina, 3).

**\**Calospiza cyanocephala cyanocephala* (P. L. S. Müller). RED-NECKED TANAGER.**

- Tanagra cyanocephala* P. L. S. Müller, Natursyst., Suppl., p. 159, 1776—based on “*Tangara varié à tête bleue de Cayenne*” Daubenton, Pl. Enl., pl. 33, fig. 2; “*Cayenne*” (errore)=Rio de Janeiro (auct. Berlepsch, 1912); Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 425, 1819—Brazil and “Peru,” rare in “Guiana.”
- Aglaia cyanocephala* Swainson, Ornith. Draw., Part 1, pl. 5, 1834.
- Tanagra festiva* Shaw and Nodder, Natur. Misc., 13, pl. 537, 1802—“*Cayenne*” (location of type not stated).
- Tanagra trichroa* Lichtenstein, Verz. Doubl. Berliner Mus., p. 30, 1823—based on *Tanagra tricolor* var.  $\beta$  Gmelin, Syst. Nat., 1, (2), p. 891, 1789 (ex “*Le Tangara varié à teste bleue de Cayenne*” Brisson, Orn., 6, Suppl., p. 62, pl. 4, fig. 2, et Daubenton, Pl. Enl., pl. 33, fig. 2; “*Cayenne*,” errore).
- Tanagra rubricollis* (Temminck MS.) Wied, Beitr. Naturg. Bras., 3, (1), p. 456, 1830—Fazenda Gurapina, near Cabo Frio, Rio de Janeiro (type now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 219, 1889).
- Tanagra multicolor* Descourtilz, Ornith. Brésil., livr. 3, p. 30, pl. 34, fig. 3, 1856(?)—Brazil (no locality specified, but probably vicinity of Rio de Janeiro).
- Calliste festiva* Bonaparte, Consp. Gen. Av., 1, (1), p. 234, 1850—Brazil; Selater, Contrib. Orn., 1851, p. 51—Brazil; Burmeister, Syst. Uebers.

<sup>1</sup> The localities “Rio Claro, Goyáz,” and “Pelotas, Rio Grande do Sul,” are evidently erroneous.

*Additional material examined*.—Brazil: Bahia, 3; Victoria, Espirito Santo, 2; Nova Friburgo, Rio, 1; Registo do Sai, Rio, 1; Rio de Janeiro, 1; Ypanema, São Paulo, 1; Curucatu, São Paulo, 2; Joinville, Santa Catharina, 22.—Paraguay: Cambyretá, 2.

Th. Bras., 3, p. 188, 1856—Nova Friburgo, Rio; Sclater, Proc. Zool. Soc. Lond., 24, p. 246, 1856—southeastern Brazil (descr.); idem, Monog. Gen. Calliste, p. 11, pl. 5, 1857—Rio de Janeiro (monog.); idem, Cat. Coll. Amer. Bds., p. 63, 1862—Rio de Janeiro; Pelzeln, Reise Novara, Zool., 1, Vögel, p. 91, 1865—Corcovado, Rio de Janeiro; idem, Orn. Bras., 3, p. 206, 1870—Rio de Janeiro (Registo do Sai, Corcovado); Hamilton, Ibis, 1871, p. 302—São Paulo (Serra south of São Paulo and south of Itapetininga); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 118, 1885—Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 100, 1886—part, spec. c-i, Rio, Nova Friburgo, and São Paulo; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 147, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio.

*Tatao festivus* Bonaparte, Rev. Mag. Zool., (2), 3, p. 141, 1851—Brazil.

*Callispiza festiva* Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro.

*Calospiza festiva* Ihering, Cat. Faun. Braz., 1, p. 351, 1907—São Paulo (Iguapé, Alto da Serra, Ubatuba, Estação Rio Grande) and Paraná (range excl. Bahia and Pernambuco).

*Calospiza cyanocephala* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1027, 1912—Espírito Santo to Rio Grande do Sul.

*Tangara cyanocephala cyanocephala* Hellmayr, Verh. Orn. Ges. Bay., 12, p. 128, 1915—Victoria, Espírito Santo (crit.).

*Tangara cyanocephala* Pereyra, El Hornero, 4, p. 33, 1927—Misiones.

*Range*.—Wooded region of southeastern Brazil, from Espírito Santo to Rio Grande do Sul, and the adjacent parts of the Argentine Province of Misiones.<sup>1</sup>

15: Brazil (Joinville, Santa Catharina, 13; "Rio skin," 2).

\**Calospiza cyanocephala corallina* Berlepsch.<sup>2</sup> NORTHERN RED-NECKED TANAGER.

*Calospiza cyanocephala corallina* Berlepsch, Orn. Monatsber., 11, p. 18, 1903—Bahia, Brazil (type in Berlepsch Collection, now in Frankfort Museum); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1027, 1912—Bahia and Pernambuco.

<sup>1</sup> Birds from various parts of the range agree well together, although the few seen from Espírito Santo possibly have the red collar of a very slightly lighter tone. There is considerable individual variation in size.

*Additional material examined*.—Espírito Santo: Victoria, 2.—Rio de Janeiro: Rio de Janeiro, 5; Registo do Sai, 1; Corcovado, 1.—São Paulo: São Sebastião, 2.—Paraná: Curytiba, 1.—Santa Catharina: Joinville, 72.

<sup>2</sup> *Calospiza cyanocephala corallina* Berlepsch: Similar to *C. c. cyanocephala*, but decidedly smaller; adult males with nuchal collar and sides of head paler, flame scarlet to grenadine red rather than deep scarlet; the cadmium yellow wing band narrower; the reddish line separating the blackish chin from the blue gular spot markedly wider and paler, less scarlet; the green of the under parts generally of a lighter, more yellowish hue. Wing, 60–64; tail, 41–46.

*Additional material examined*.—Brazil: Bahia, 12; Quipapá, Pernambuco, 1.



*Calliste festiva* (not *Tanagra festiva* Shaw and Nodder) Forbes, Ibis, 1881, p. 332—near Quipapá, Pernambuco; Sclater, Cat. Bds. Brit. Mus., 11, p. 100, 1886—part, Pernambuco (spec. b) and Bahia.

*Calospiza festiva* Ihering, Cat. Faun. Braz., 1, p. 351, 1907—part, Pernambuco and Bahia.

*Range.*—Wooded region of eastern Brazil, from Bahia to Pernambuco.

1: Brazil (Bahia, 1).

**\**Calospiza cyanocephala cearensis* (Cory).<sup>1</sup> CEARÁ RED-NECKED TANAGER.**

*Tanagra cyanocephala cearensis* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 345, 1916—Serra de Baturité, Ceará (type in Field Museum); Hellmayr, l.c., Zool. Ser., 12, p. 279, 1929—Serra de Baturité (crit.).

*Calospiza cyanocephala cearensis* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 41, 1926—Ceará (crit.).

*Range.*—Wooded hills of northeastern Brazil, in State of Ceará (Serra de Baturité and other ranges).

4: Ceará (Serra de Baturité, 4).

***Calospiza cyanoventris* (Vieillot). BLUE-BREASTED TANAGER.**

*Tanagra cyanoventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 426, 1819—"Brésil"; idem, Tabl. Enc. Méth., Orn., livr. 91, p. 781, 1822—Brésil (type stated to be in Paris Museum, where it is still preserved [fide J. Berlioz, in litt.]); Pucheran, Rev. Mag. Zool., (2), 10, p. 470, 1858 (crit.).

*Tanagra elegans* (not of P. L. S. Müller, 1776) Wied, Reise Bras., 1, p. 187, (8vo ed., p. 184), 1820—Barra do Jucú, Espirito Santo (type now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 219, 1889).

*Tanagra citrinella* Temminck, Nouv. Rec. Pl. Col., livr. 7, pl. 42, fig. 2, Feb., 1821—"Brésil" (type, from Ypanema, São Paulo, in the Leiden Museum); Wied, Beitr. Naturg. Bras., 3, (1), p. 464, 1830—Barra do Jucú, Espirito Santo.

*Aglaia citrinella* Swainson, Orn. Draw., Part 1, pl. 6, 1834.

*Calliste citrinella* Bonaparte, Consp. Gen. Av., 1, (1), p. 234, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 184, 1856—Espirito Santo to Bahia "and Pernambuco."

*Chrysothraupis citrinella* Bonaparte, Rev. Mag. Zool., (2), 3, p. 142, 1851—Brazil.

<sup>1</sup> *Calospiza cyanocephala cearensis* (Cory): A very distinct form, differing in the male sex from the two other races by deeper, more purplish blue crown; blackish upper throat; and particularly by the presence of long pale cerulean blue tips to the shorter upper tail coverts, the last-named character being suggested even in females and immature males. In dimensions, width of orange wing band, and intensity of nuchal collar, it is nearer to *C. c. cyanocephala* than to *C. c. corallina*. Wing (adult males), 64–69; tail, 47–50; bill, 10.

*Calliste cyaneiventris* Sclater, Contrib. Orn., 1851, p. 52—Brazil; idem, Proc. Zool. Soc. Lond., 24, p. 247, 1856—southeastern Brazil (diag.); idem, Monog. Gen. Calliste, p. 14, pl. 6, 1857—Espírito Santo (Rio Jucú) and São Paulo (Ypanema); idem, Cat. Coll. Amer. Bds., p. 63, 1862—Rio de Janeiro; Pelzeln, Orn. Bras., 3, p. 206, 1870—Ypanema, São Paulo; Sclater, Cat. Bds. Brit. Mus., 11, p. 100, 1886—Espírito Santo to São Paulo (São Paulo, São Carlos do Pinhal, Piquete); idem, l.c., 4, p. 153, 1900—Cantagallo, Rio.

*Calospiza cyaneiventris* Ihering, Cat. Faun. Braz., 1, p. 352, 1907—São Paulo (Piquete, São Carlos do Pinhal) and Minas Geraes (Vargem Alegre, Marianna); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1027, 1912—Bahia to São Paulo.

*Calospiza cyaniventris* Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Mont-Serrat, Itatiaya; Velho, l.c., p. 264, 1923—same locality.

*Tangara cyaneiventris* Holt, Bull. Amer. Mus. N. H., 57, p. 320, 1928—Serra do Itatiaya (alt. 3,100 ft.).

*Range*.—Wooded region of southeastern Brazil, from southern Bahia, Espírito Santo, and southern Minas Geraes (Marianna, Vargem Alegre) to São Paulo.<sup>1</sup>

### *Calospiza desmaresti* (Vieillot). YELLOW-BREASTED TANAGER.

*Tangara desmaresti* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 410, 1819—"Brésil"; idem, Tabl. Enc. Méth., Orn., livr. 91, p. 774, 1822—"Brésil" (type, collected by Delalande, Jr., in the vicinity of Rio de Janeiro, examined in the Paris Museum); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 354, 1855 (crit.).

*Tangara thoracica* Temminck, Nouv. Rec. Pl. Col., livr. 7, pl. 42, fig. 1, Feb., 1821—"Brésil" (type, collected by Delalande, Jr., in the vicinity of Rio de Janeiro, in the Paris Museum).<sup>2</sup>

<sup>1</sup> Whether its range extends really as far north as Pernambuco, as is claimed by Burmeister (whose notes on distribution are frequently more or less imaginary) remains to be confirmed.

*Material examined*.—Brazil: Bahia, 2; Ypanema, São Paulo, 8.

<sup>2</sup> In the text to pl. 42, fig. 1, Temminck states that specimens were forwarded by M. Delalande to the Paris Museum, while those in the Leiden and Vienna collections are due to the researches of J. Natterer. According to the registers of the Vienna Museum, the examples which passed by way of exchange into the Leiden Museum are a male and a female shot by Natterer on Sept. 18, 1820, at Jaguaraíba; but since we know from Josef Natterer's account (in Oken's *Isis*, 1833, p. 546) that the collections made by his brother between July, 1820, and February 1, 1821, did not reach Vienna until October, 1821, whereas Temminck's plate was issued with livr. 7 in February, 1821, it is quite evident that Huet's figure must have been drawn from Delalande's specimen in the Paris Museum, which thus may be assumed to be the type. The same individual served as basis for the description of *T. desmaresti* Vieillot, which, though faulty in several respects, cannot refer to any other bird, as we have explained elsewhere (Verh. Orn. Ges. Bay., 14, pp. 282-283, 1920). The text to pl. 42 of Temminck's "Nouveau Recueil" appeared more than a year later, together with livr. 21, in April, 1822, thus allowing the author to include the specimens received in the meantime from the Vienna Museum.

*Calliste thoracica* Bonaparte, Consp. Gen. Av., 1, (1), p. 234, 1850—Brazil; Sclater, Contrib. Orn., 1851, p. 54—Brazil; idem, Proc. Zool. Soc. Lond., 24, p. 247, 1856—southeastern Brazil (descr.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 186, 1856—Nova Friburgo, Rio; Sclater, Monog. Gen. Calliste, p. 15, pl. 7, 1857—Brazil; idem, Cat. Coll. Amer. Bds., p. 63, 1862—Rio de Janeiro; Pelzeln, Orn. Bras., 3, p. 206, 1870—São Paulo (Casa Pintada) and Paraná (Jaguaraiba, Campo Comprido, Curytiba); Sclater, Cat. Bds. Brit. Mus., 11, p. 101, 1886—southeastern Brazil ("Pelotas, Rio Grande do Sul" and Rio Claro, "Goyáz," errore); Ihering, Rev. Mus. Paul., 3, p. 147, 1899—São Paulo; idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio de Janeiro.

*Calospiza thoracica* Ihering, Cat. Faun. Braz., 1, p. 352, 1907—São Paulo (Ypiranga, Alto da Serra, Itararé, Ubatuba, Campos de Jordão) and Minas Geraes (Itatiaya); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1027, 1912—southeastern Brazil and "Goyáz" (errore); Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Retiro do Ramos, Itatiaya.

*Calospiza (Calliste) thoracica* Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 356, 1909—Campo Itatiaya.

*Tangara thoracica* Holt, Bull. Amer. Mus. N. H., 57, p. 320, 1928—Serra do Itatiaya.

*Tangara desmaresti* Hellmayr, Verh. Orn. Ges. Bay., 14, p. 283, 1920 (crit.).

*Chrysothraupis thoracica* Bonaparte, Rev. Mag. Zool., (2), 3, p. 143, 1851—Brazil.

*Range.*—Wooded region of southeastern Brazil, from Rio de Janeiro (Rio de Janeiro, Nova Friburgo, Cantagallo, etc.) through São Paulo to Paraná (Jaguaraiba, Campo Comprido, Curytiba).<sup>1</sup>

12: Brazil (Rio de Janeiro, 1; Therezopolis, Rio de Janeiro, 11).

### *Calospiza gouldi* (Sclater).<sup>2</sup> GOULD'S TANAGER.

<sup>1</sup> The species is unknown in Goyáz and Rio Grande do Sul, the specimens in the British Museum said to be from these provinces being doubtless incorrectly labeled.

*Additional material examined.*—Brazil: Colonia Alpina, Serra dos Orgãos, 5; Rio de Janeiro, 2; Nova Friburgo, Rio, 1; Casa Pintada, São Paulo, 2; Jaguaraiba, Paraná, 1; Campo Comprido, 1; Curytiba, Paraná, 1.

<sup>2</sup> *Calospiza gouldi* (Sclater): Nearly allied to *C. desmaresti*, but readily distinguished by much larger black gular patch, which is, besides, bordered all round by a narrow dark blue line, and correspondingly smaller, also more purely green (less yellowish) submental spot; bright grass green instead of deep chrome prepectoral area and smaller upper wing coverts; slightly more golden green edges to the upper parts; by lacking the conspicuous pale yellow abdominal streak, which is merely suggested by a few buffy edges in the middle of the lower belly. Wing (unsexed adult), 69; tail, 52; bill, 12.

The unique type in the British Museum is a skin of the well-known South Brazilian, so-called "Rio" preparation. No other specimen resembling it has ever been found since its description. While there can be no doubt as to its constituting a perfectly good form, *C. gouldi* may ultimately turn out to be a local representative of *C. desmaresti*.

*Calliste gouldi* Sclater, Proc. Zool. Soc. Lond., 1885 (Nov.), p. 849, pub. (early in) 1886—southeastern Brazil (type in British Museum examined); idem, Cat. Bds. Brit. Mus., 11, p. 102, 1886—Brazil.

*Calospiza gouldi* Ihering, Cat. Faun. Braz., 1, p. 352, 1907—southern Brazil; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1028, 1912—southeastern Brazil.

*Range.*—Southeastern Brazil (exact locality unknown).

**\**Calospiza schrankii* (Spix). SCHRANK'S TANAGER.**

*Tanagra schrankii* Spix, Av. Spec. Nov. Bras., 2, p. 38, pl. 51, figs. 1 (male), 2 (female), 1825—no locality indicated; we suggest Tabatinga, Rio Solimões, Brazil (types in Munich Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 270, pl. 24, fig. 1, 1839—Yuracares, Bolivia.

*Aglaia schrankii* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 31, 1837—Yuracares, Bolivia; Bonaparte, Proc. Zool. Soc. Lond., 5, p. 122, 1837—western "Brazil bordering on Peru" (crit.).

*Aglaia melanotis* Swainson, Anim. Menag., p. 355, Dec. 31, 1837—Peru (descr. of female; type in coll. of W. Hooker, present location unknown).

*Calliste schrankii*(i) Bonaparte, Consp. Gen. Av., 1, (1), p. 235, 1850—Brazil and Bolivia; Sclater, Contrib. Orn., 1851, p. 54—Bolivia, Peru, etc.; idem, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quijos, Ecuador; idem, l.c., 24, p. 248, 1856—Peru (Maynas), Ecuador (Quixos), and Bolivia, Yuracares (descr.); idem, Monog. Gen. Calliste, p. 17, pl. 8, 1857—Ecuador (Quixos), Peru, and Bolivia (monog.); idem, Proc. Zool. Soc. Lond., 25, p. 264, 1857—Ega and Rio Javarri, Brazil; idem, l.c., 26, pp. 74, 453, 1858—Rio Napo, Gualaquiza, and Zamora, Ecuador; idem, Cat. Coll. Amer. Bds., p. 64, 1862—Peruvian Amazon and Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—upper Ucayali, Peru; idem, l.c., 1867, pp. 749, 977—Xeberos, Chyavetas, and Pebas, Peru; Pelzeln, Orn. Bras., 3, p. 206 (note 4), 1870—Tabatinga [Rio Solimões], Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata, Peru; idem, l.c., 1873, p. 261—upper Ucayali, Xeberos, Chyavetas, Pebas, Ega, and Rio Javarri; Taczanowski, l.c., 1874, p. 514—Monterico (Ayacucho) and Amable Maria (Junín), Peru; Sclater and Salvin, l.c., 1879, p. 598—Yuracares, Nairapi, and Tilotilo, Bolivia; Taczanowski, Orn. Pér., 2, p. 459, 1884—Peruvian localities; Sclater, Cat. Bds. Brit. Mus., 11, p. 102, 1886—Ecuador (Sarayacu, Rio Napo), Peru (Pebas, Ucayali), and Bolivia (Nairapi); Berlepsch, Journ. Orn., 37, p. 296, 1889—Shanusi, near Yurimaguas, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Rio Napo, Ecuador; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 339—La Gloria (Vitoc) and La Merced (Chanchamayo), Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Rio Zamora, Ecuador.

*Callispiza schrankii* Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 201, 1846—forest region of eastern Peru.

*Chrysothraupis schrankii* Bonaparte, Rev. Mag. Zool., (2), 3, p. 143, 1851—Brazil and Bolivia.



*Calospiza schranki*(i) Berlepsch and Stolzmann, *Ornis*, 13, p. 109, 1906—Huaynapata and Rio Cadena, Peru; Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 673, 1906 (note on type); Ihering, *Cat. Faun. Braz.*, 1, p. 352, 1907—Ucayali, Peru, and San Mateo, Bolivia (range); Snethlage, *Journ. Orn.*, 56, p. 10, 1908—Ponto Alegre, Rio Purús, Brazil; Ménégau, *Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat.*, 9, p. B. 93, 1911—Gualaquiza, Ecuador; idem, *Rev. Franç. d'Orn.*, 2, p. 9, 1911—Nuevo Loreto, near Tayabamba, Peru; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1028, 1912—southeastern Colombia (Rio Putumayo) to Bolivia and western Brazil; Snethlage, *Bol. Mus. Goeldi*, 8, p. 444, 1914—Ponto Alegre, Rio Purús; Berlioz, *Bull. Mus. Hist. Nat. Paris*, 31, p. 233, 1925—Canelos, Ecuador.

*Tangara schrankii* Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 593, 1917—Florencia, Caquetá, Colombia; idem, *Bull. U. S. Nat. Mus.*, 117, p. 117, 1921—Rio Cosireni, Urubamba, Peru; Hellmayr, *Nov. Zool.*, 30, p. 236, 1923—Bolivia (crit.); Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 655, 1926—Ecuador (Zamora, Macas region, below San José, Rio Suno); Zimmer, *Field Mus. Nat. Hist., Zool. Ser.*, 17, p. 439, 1929—Huachipa, Peru (crit.).

(?)*Tanagra graminea* Spix, *Av. Spec. Nov. Bras.*, 2, p. 40, pl. 53, fig. 2, 1825—no locality indicated (type lost; cf. Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 675, 1906).<sup>1</sup>

*Range*.—Upper Amazonia, from southeastern Colombia (Cuembí, Rio Putumayo; Florencia, Caquetá) through eastern Ecuador, eastern Peru, and extreme western Brazil (Ega and Tabatinga, Rio Solimões; Rio Purús) south to northern Bolivia (Yungas of La Paz and Cochabamba).<sup>2</sup>

11: Peru (Chanchamayo, 1; Huachipa, 8; Nuevo Loreto, east of Tayabamba, Libertad, 1; Yurimaguas, 1).

### *Calospiza johannae* (Dalmas).<sup>3</sup> JOHANNA'S TANAGER.

*Calliste johannae* Dalmas, *Bull. Brit. Orn. Cl.*, 11, p. 36, Dec., 1900—El Paillon, near Buenaventura, Colombia (type in coll. of R. de Dalmas, later in Tring Museum, now in the American Museum of Natural History,

<sup>1</sup> What *Tanagra graminea* really is, will always remain in doubt, the type having disappeared. The figure looks somewhat like the juvenile plumage of *C. schrankii*, but lacks every trace of the sooty color on forehead and sides of head, and has no yellow suffusion on the rump.

<sup>2</sup> Birds from Colombia (Rio Putumayo) seem to be inseparable from series of Peruvian and Bolivian specimens.

*Additional material examined*.—Colombia: Cuembí, Rio Putumayo, 18.—Ecuador: Sarayacu, 3; San José, 2; Rio Napo, 1.—Brazil: Tabatinga, 1.—Peru: Rio Cadena, Marcapata, 1; Huaynapata, 1; Marcapata, 27; Shanusi, Yurimaguas, 1.—Bolivia: San Mateo, 15.

<sup>3</sup> *Calospiza johannae* (Dalmas) is a very distinct species, which, though allied to *C. schrankii*, differs readily by lacking the light cadmium occipital patch (the whole crown being shining green, a little more yellowish than the lateral margins to the dorsal feathers) and the greenish spot in front of the eyes; by having a

New York); Sclater, *Ibis*, 1901, p. 597, pl. 12, fig. 2—Paramba, Rio Mira, Ecuador (crit.).<sup>1</sup>

*Calospiza johannae* Hellmayr, *Ibis*, 1910, p. 328—Chocó, Colombia, and northwestern Ecuador; idem, *Proc. Zool. Soc. Lond.*, 1911, p. 1101—Tadó, Nóvita, and Condoto, Chocó, Colombia; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1028, 1912—El Paillon, Colombia, and Paramba, Ecuador.

*Tangara johannae* Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 593, 1917—Andagueda (upper Atrato), Juntas de Tamaná, Noanamá, San José, and Barbacoas, Colombia; idem, *l.c.*, 55, p. 656, 1926—Paramba, Ecuador.

*Range*.—Tropical zone of western Colombia and northwestern Ecuador, from the upper Atrato (Andagueda) south to Paramba, Prov. Imbabura.

\**Calospiza florida*<sup>2</sup> *florida* (Sclater and Salvin). EMERALD TANAGER.

*Calliste florida* Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1869, p. 416, pl. 28—Costa Rica (type in Salvin-Godman Collection, now in British Museum; descr. of female); Salvin, *Ibis*, 1870, p. 114—Costa Rica; Sclater, *Ibis*, 1876, p. 409—Costa Rica and "Veraguas" (crit.); Salvin and Godman, *Biol. Centr.-Amer., Aves*, 1, p. 267, pl. 17, fig. 1, 1883—Costa Rica and Veraguas; Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 103, 1886—Costa Rica and "Veraguas."

*Calospiza florida* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1028, 1912—Costa Rica.

*Calospiza florida florida* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 39, 1902—Carrillo, Costa Rica (monog.).

*Calospiza florida arcaei* Ridgway, *Proc. Wash. Acad. Sci.*, 3, p. 149, April, 1901—Veragua (type in U. S. National Museum); Bangs, *Proc. New Engl. Zool. Cl.*, 3, p. 65, 1902—Caribbean slope of Volcan de Chiriquí, Panama; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 40, 1902—Veragua (monog.).

*Calospiza arcaei* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1028, 1912—Veragua.

*Tangara florida* Carriker, *Ann. Carnegie Mus.*, 6, p. 863, 1910—Bonilla, Carrillo, and Cariblanco de Sarapiquí, Costa Rica (crit., plumages, habits).

black gular patch bordered laterally and posteriorly by a bright blue margin; blue tips to frontal feathers and a blue stripe along the upper edge of the auriculars; pale grayish middle of the belly, etc. Wing, (male) 73, (female) 67; tail, 50–51, (female) 46; bill, 10–11.

*Material examined*.—Colombia: El Paillon, near Buenaventura, 1 (the type); Tadó, Rio San Juan, Chocó, 3; Nóvita, Rio Tamaná, 1; Condoto, Rio Condoto, 1.—Ecuador: Paramba (alt. 3,500 ft.), Prov. Imbabura, 1.

<sup>1</sup> The Peruvian localities mentioned by Sclater are due to a misunderstanding (cf. Hellmayr, *Ibis*, 1910, p. 328, footnote).

<sup>2</sup> *Calospiza florida* is possibly conspecific with *C. schrankii*, which it apparently replaces on the Pacific coast of Colombia (*auriceps*) and in southern Central America.

*Range*.—Tropical zone of the Caribbean slope of Costa Rica and western Panama (Boquete, Chiriquí; Rio Calovévora, Veraguas).<sup>1</sup>

1: Costa Rica (Peralta, 1).

**Calospiza florida auriceps** (Chapman).<sup>2</sup> SOUTHERN EMERALD TANAGER.

*Tangara florida auriceps* Chapman, Bull. Amer. Mus. N. H., 33, p. 188, March, 1914—Buenavista, Nariño, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 593, 1917—Buena Vista and Nóvita, Colombia.

*Range*.—Tropical zone of Pacific Colombia, from Nariño (Buena Vista) north to extreme eastern Panama (Tacarcuna, Darien).

**Calospiza punctata punctata** (Linnaeus). SPOTTED TANAGER.

*Tanagra punctata* Linnaeus, Syst. Nat., 12th ed., 1, p. 316, 1766—based on "Le Tangara verd piqueté des Indes" Brisson (Orn., 3, p. 19, pl. 4, fig. 2; "Indes orientales") and "The Spotted Green Tit-mouse" Edwards (Glean. Nat. Hist., 2, p. 110, pl. 262; Surinam); Surinam (ex Edwards) accepted as type locality.

*Calliste punctata* Bonaparte, Consp. Gen. Av., 1, (1), p. 234, 1850—Brazil; Selater, Contrib. Orn., 1851, p. 55—Cayenne; idem, Proc. Zool. Soc. Lond., 24, p. 248, 1856—Cayenne (descr.); idem, Monog. Gen. Calliste, p. 19, pl. 9, 1857—Cayenne (monog.); idem, Cat. Coll. Amer. Bds., p. 64, 1862—Cayenne; Pelzeln, Orn. Bras., 3, p. 206, 1870—Barra do Rio Negro [= Manãos] and Rio Içanna, Brazil (spec. in Vienna Museum examined); Dubois, Bull. Acad. Roy. Belg., 38, p. 128, 1874—Cayenne; Salvin, Ibis, 1885, p. 209—British Guiana (Bartica Grove, Merumé Mountains, Roraima); Selater, Cat. Bds. Brit. Mus., 11, p. 104, 1886—Cayenne, Oyapock, and British Guiana (Bartica Grove, Merumé Mountains, Roraima); Sneath, Journ. Orn., 55, p. 293, 1907—Pará.

<sup>1</sup> There do not seem to be any constant color differences between birds from Costa Rica and Panama, if specimens of corresponding age are compared. Mr. Todd (in Carriker, Ann. Carnegie Mus., 6, p. 863, 1910) takes *C. f. arcaei* for the first annual plumage of the male, and the available material, scanty as it is, tends to substantiate this view. One of the males from Boquete, Chiriquí, has more yellow on the crown than four from Costa Rica, and the figure in the "Biologia," drawn from one of Arcé's Veraguan skins, likewise shows a distinct yellow occipital patch, which is in direct opposition to Ridgway's diagnosis of *C. f. arcaei*.

*Additional material examined*.—Costa Rica: Carrillo, 5.—Panama: Boquete, Chiriquí, 4; "Veragua" (ex Boucard), 1; Rio Calovévora, Veraguas, 3.

<sup>2</sup> *Calospiza florida auriceps* (Chapman): Similar to *C. f. florida*, but yellow of crown much more extensive, reaching to the middle of the eyes; scapulars with narrower, if any, greenish edges. Wing, 65, (female) 62; tail, 40; bill, 10.

A single adult male from Tacarcuna, Darien, in extent of the yellow crown patch, is intermediate between *florida* and *auriceps*, though nearer the latter. The green margins to the scapulars, however, are just as well developed as in *florida*. Pending the receipt of further material, the bird is provisionally referred to *auriceps*, mainly out of zoogeographical considerations.

*Additional material examined*.—Colombia: Buenavista, Nariño, 2; Nóvita, Rio San Juan, 1.—Panama: Tacarcuna, Darien, 1 (male).

*Ixothraupis punctata* Bonaparte, Rev. Mag. Zool., (2), 3, p. 143, 1851—Cayenne and Brazil; idem, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne.

*Calospiza punctata* Hellmayr, Nov. Zool., 12, p. 272, 1905—Igarapé-Assú, Pará; Ihering, Cat. Faun. Braz., 1, p. 353, 1907—"Trinidad" (errore) and British Guiana (range in part, Guyana, Pará, Rio Negro); Berlepsch, Nov. Zool., 15, p. 114, 1908—Cayenne and Oyapock, French Guiana; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1028, 1912—Cayenne, British Guiana, and Brazil (Rio Negro, Rio Içanna, Pará); Sneathlodge, Bol. Mus. Goeldi, 8, p. 444, 1914—Pará, Providencia, Ananindeua, Peixe-Boi, and Rio Jamundá (Faro).

*Tangara punctata punctata* Hellmayr, Abhandl. Bayr. Akad. Wiss., Math.-phys. Kl., 26, No. 2, p. 9, 1912—Peixe-Boi, Pará (crit.); Beebe, Zoologica (N.Y.), 2, p. 100, 1916—Utinga, Pará; Chubb, Bds. Brit. Guiana, 2, p. 505, 1921—British Guiana (numerous localities); Chapman, Bull. Amer. Mus. N. H., 63, p. 128, 1931—Roraima (Paulo) and Mount Duida, Venezuela (crit.).

*Range*.—French, Dutch, and British Guiana; northern Brazil (north of the Amazon west to the upper Rio Negro, also in the Pará district); southern Venezuela (Mount Duida).<sup>1</sup>

\**Calospiza punctata zamorae* (Chapman).<sup>2</sup> ECUADORIAN SPOTTED TANAGER.

*Tangara punctata zamorae* Chapman, Amer. Mus. Nov., 160, p. 9, 1925—Zamora, eastern Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 656, 1926—Zamora and below San José, Ecuador.

*Calliste punctata* (not *Tanagra punctata* Linnaeus) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 77—Machay and Mapoto, Ecuador.

*Calospiza punctata* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—part, Ecuador.

*Calliste punctulata* (not of Sclater and Salvin, 1876) Sclater, Cat. Bds. Brit. Mus., 11, p. 104, 1886—part, spec. c, San José.

<sup>1</sup> Specimens from Pará and Manáos agree well with others from French and British Guiana. Two adult males from the Rio Içanna (tributary of the upper Rio Negro) form the passage to *C. p. zamorae*, agreeing with it in larger size (wing, 64–65; tail, 44–45). One resembles the typical form in the decidedly blue edgings to primary coverts and outer primaries, while the other in that respect hardly differs from Ecuadorian skins. Specimens from Roraima (and Duida, fide Chapman) are again larger (wing of males, 65–68; tail, 44–46) than lowland birds.

*Material examined*.—French Guiana: Cayenne, 4.—British Guiana: Bartica Grove, 2; Roraima (alt. 3,500 ft.), 4; unspecified, 3.—Brazil: Pará, 4; Marco da Legua, 1; Igarapé-Assú, 1; Peixe-Boi, 1; Manáos, 5; Rio Içanna, 2.

<sup>2</sup> *Calospiza punctata zamorae* (Chapman): Similar to *C. p. punctata*, but larger, and the primary coverts and outer primaries margined with green instead of with blue. Wing (males), 64–66; tail, 44–46½.

An unsexed adult from Huayabamba, while not quite typical, is provisionally referred here rather than to the next form.

*Material examined*.—Ecuador: San José, 2; Machay, 1; Mapoto, 1; Guayaba, Rio Zamora, 2; Zamora, 1.—Peru: Huayabamba, 1.



*Calospiza punctulata* Ménégaux, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 93, 1912—Rio Napo, Ecuador.

*Calospiza punctata punctulata* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1029, 1912—part, eastern Ecuador (Machay, Mapoto, San José) and northern Peru (Huayabamba).

*Range*.—Tropical zone of eastern Ecuador (Zamora, San José, Machay, Mapoto) and northern Peru (Huayabamba; Moyobamba).

1: Peru (Moyobamba, 1).

***Calospiza punctata perenensis* (Chapman).<sup>1</sup> PERUVIAN SPOTTED TANAGER.**

*Tangara punctata perenensis* Chapman, Amer. Mus. Nov., 160, p. 9, 1925—Utcuyacu, Prov. Junín, Peru (type in the American Museum of Natural History, New York).

*Calospiza punctata* (not *Tanagra punctata* Linnaeus) Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 203, 1846—wood region of eastern Peru.

*Calliste punctata* Taczanowski, Orn. Pér., 2, p. 460, 1884—Peru (ex Tschudi).

*Calliste punctulata* (not of Sclater and Salvin) Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 340—Garita del Sol, Vitoc.

*Calospiza punctata punctulata* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1029, 1912—part, central Peru (Garita del Sol).

*Range*.—Tropical zone of central Peru, in Dept. of Junín (Garita del Sol, Tulumayo, Utcuyacu).

***Calospiza punctata punctulata* (Sclater and Salvin). BOLIVIAN SPOTTED TANAGER.**

*Calliste punctulata* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 353—Tiltilo, Bolivia (type in Salvin-Godman Collection, now in British Museum); idem, l.c., 1879, p. 598—Tiltilo; Sclater, Cat. Bds. Brit. Mus., 11, p. 104, 1886—part, spec. a-b, Tiltilo, Bolivia.

*Calospiza punctulata* Berlepsch and Stolzmann, Ornith., 13, p. 109, 1906—Huaynapata and Rio Cadena, Marcapata, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1029, 1912—part, southeastern Peru (Huaynapata, Marcapata) and Bolivia (Tiltilo, San Antonio).

*Range*.—Tropical zone of extreme southeastern Peru (Marcapata Valley and its tributaries) and northern Bolivia (Yungas of La Paz).<sup>2</sup>

<sup>1</sup> *Calospiza punctata perenensis* (Chapman): About the same size as *C. p. zamorae*, but under parts whiter, much less suffused with yellow on sides of neck, chest, and sides of breast; dorsal surface darker, less yellowish green. Generally similar to *C. p. punctulata*, but more coarsely spotted above, and the dusky streaks on flanks and under tail coverts evanescent. Wing (male), 64–66; tail, 47–49.

*Material examined*.—Peru, Dept. Junín: Garita del Sol, 2; Utcuyacu, 3.

<sup>2</sup> *Material examined*.—Bolivia: Yungas of La Paz, 1.—Peru: Huaynapata, 3; Marcapata, 3; Rio Inambari, 3.

***Calospiza chrysophrys trinitatis* (Todd).<sup>1</sup> TRINIDAD SPOTTED Tanager.**

*Tangara guttata trinitatis* Todd, Ann. Carnegie Mus., 8, No. 2, p. 203, May, 1912—Aripo, Trinidad (type in the Carnegie Museum, Pittsburgh); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 177 (in text), 1924—Trinidad (crit.).

*Calliste chrysophrys* Selater, Contrib. Orn., 1851, pp. 24, 54—part, Trinidad.

*Calliste guttulata* (not of Bonaparte) Selater, Proc. Zool. Soc. Lond., 24, p. 19, 1856—part, Trinidad.

*Calliste guttata* (not *Callispiza guttata* Cabanis) Selater, Proc. Zool. Soc. Lond., 24, p. 249, 1856—part, Trinidad; idem, Monog. Genus *Calliste*, p. 22, 1857—part, Trinidad; idem, Cat. Coll. Amer. Bds., p. 64, 1862—part, spec. c, d, Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Léotaud, Ois. Trinidad, p. 305, 1866—mountain forests of Trinidad; Finsch, Proc. Zool. Soc. Lond., 1870, p. 579—Trinidad (crit.); Selater, Cat. Bds. Brit. Mus., 11, p. 105, 1886—part, spec. j, k, Trinidad.

*Calospiza guttata* Hellmayr, Nov. Zool., 13, p. 14, 1906—Chaguanas, Trinidad; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 188, 1906—Aripo.

*Calospiza guttata chrysophrys* (not of Selater) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1029, 1912—part, Trinidad.

*Range*.—Island of Trinidad (Subtropical zone of the northern mountain ranges).

***Calospiza chrysophrys guttata* (Cabanis).<sup>2</sup> RORAIMA SPOTTED Tanager.**

*Callispiza guttata* Cabanis, Mus. Hein., 1, p. 26, Oct., 1851—Roraima, British Guiana (type in Berlin Museum).

<sup>1</sup>*Calospiza chrysophrys trinitatis* (Todd): Nearest to *C. c. chrysophrys*, but differs in both sexes by more extensive as well as deeper golden yellow about forehead and superciliary region; brighter yellow sides of the head; more coarsely spotted upper parts; larger black spotting on foreneck and breast, and more conspicuous, frequently spot-like markings on the throat. In opposition to the other races, in which there is a marked sexual difference in the amount of black spotting both above and below and in the extent of yellow about the head, the sexes in *C. c. trinitatis* are very nearly alike. In Trinidad females the yellow color on forehead and superciliaries, though more restricted and paler than in males, is still brighter than in the males of the mainland races. Wing, 70–73, (female) 67–69; tail, 51–54, (female) 49–52; bill, 11–12.

*Material examined*.—Trinidad: Aripo (alt. 1,800 to 2,000 ft.), 16; Chaguanas, 1.

<sup>2</sup>*Calospiza chrysophrys guttata* (Cabanis): Very close to *C. c. chrysophrys*, but throat plain (unstreaked); black spots on foreneck and breast smaller; the yellow about the forehead and orbital region somewhat duller; the upper parts slightly darker, less yellowish green. Wing, 70–72, (female) 66–69; tail, 52–54, (female) 51–53.

Additional specimens from Roraima lately examined corroborate the slight differences which we had noticed before, and seem to justify the recognition of *guttata*, a conclusion independently reached by Chapman upon the study of large series.

*Material examined*.—British Guiana: Roraima, 7.

*Calliste guttulata* (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 24, p. 19, 1856—part, British Guiana.

*Calliste guttata* Sclater, Proc. Zool. Soc. Lond., 24, p. 249, 1856—part, British Guiana; idem, Monog. Gen. Calliste, p. 21, 1857—part, Roraima; Salvin, Ibis, 1885, p. 209—Roraima; Sclater, Cat. Bds. Brit. Mus., 11, p. 105, 1886—part, spec. a-c, Roraima.

*Calospiza guttata* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1029, 1912—Roraima.

*Tangara guttata* Chubb, Bds. Brit. Guiana, 2, p. 507, 1921—Roraima.

*Tangara guttata guttata* Chapman, Bull. Amer. Mus. N. H., 63, p. 129, 1931—Mount Roraima (Paulo, Arabupu, Philipp Camp) and Mount Duida (Laterite Valley), Venezuela (crit.).

*Tanagra punctata* (not of Linnaeus) Schomburgk, Reisen Brit. Guiana, 2, p. 245, 1848—Our Village, Roraima.

*Callospiza punctata* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 669, "1848" [=1849]—Roraima.

*Range.*—Subtropical zone of Mounts Roraima and Duida in southern Venezuela.

**\**Calospiza chrysophrys chrysophrys* (Sclater). YELLOW-BROWED TANAGER.**

*Calliste chrysophrys* Sclater, Contrib. Orn., 4, Part 1, p. 24, pl. 69, fig. 2, Jan., 1851—part, Venezuela (type, from Venezuela,<sup>1</sup> in coll. of P. L. Sclater, now in British Museum); idem, l.c., p. 54—part, Venezuela.

*Calliste guttulata* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, No. 3, p. 76, 1851—Ecuador<sup>2</sup> (type in Paris Museum examined); Sclater, Proc. Zool. Soc. Lond., 24, p. 19, 1856—part, Venezuela.

<sup>1</sup> The type was collected by the late H. Dyson "in the vicinity of Caracas" (cf. Sclater, Monog. Gen. Calliste, p. 22, 1857).

<sup>2</sup> Sclater (Contrib. Orn., 1851, p. 54) gives "Mindo" as its locality. The type, courteously forwarded by M. Ménégaux, is labeled: "de Quito, donné par M. Bourcier en 1851. (Cat. No. 13.) *Izolhraupis guttulata* Bp. Type de l'espèce." On comparison with good series of the various races, I find it indistinguishable from specimens of the Venezuelan coast ranges, notably a male taken by S. M. Klages at Las Quiguas, Carabobo (Munich Museum, No. 11. 2170). Bonaparte's statement "croupion jaune" is incorrect, the lower back and rump being shining green like the rest of the upper parts. It certainly is neither *tolimae* nor *eusticta*, which are much more heavily spotted underneath with black shaft-streaks on the under tail coverts, while from *bogotensis* the type is immediately separated by the broad bright yellow frontal band, orbital ring, and superciliaries, as well as by more yellowish green top and sides of the head. Whether the locality "Ecuador," where no representative of this group of tanagers has since been obtained, is correct, remains extremely doubtful, although it should be noted that, according to Finsch (Proc. Zool. Soc. Lond., 1870, p. 579), the Bremen Museum also has specimens from "Quito, Ecuador."

Sclater's name *chrysophrys* appears to have slight priority. The first number of the "Contributions to Ornithology" was published in January, while Bonaparte's paper, read at the meeting of January 20, is not likely to have been issued before the end of the month. In any case, both these names have priority over *Callispiza guttata* Cabanis, unless the advance sheets of the "Museum Heineanum," which were in circulation in Germany as early as October, 1850, be considered as constituting actual publications.

*Ixothraupis guttulata* Bonaparte, Rev. Mag. Zool., (2), 3, pp. 130, 144, 1851—Ecuador (diag.).

*Calliste guttulata* (not *Callispiza guttulata* Cabanis) Sclater, Proc. Zool. Soc. Lond., 24, p. 249, 1856—part, Venezuela and "Ecuador (Bourcier)" (diag.); idem, Monog. Gen. Calliste, p. 21, pl. 10, 1857—part, Venezuela (near Caracas) and "Ecuador (Mindos)"; idem, Cat. Coll. Amer. Bds., p. 64, 1862—part, spec. a, Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—Caracas; idem, Cat. Bds. Brit. Mus., 11, p. 105, 1886—part, spec. d-g, i, Venezuela ("Puerto Cabello," Caracas); Phelps, Auk, 14, p. 364, 1897—Cumanacoa [Sucre], Venezuela.

*Tangara guttulata guttulata* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 55, 1912—Cumbre de Valencia, Cumbre Chiquita, and Las Quiguas, Carabobo (crit.); Hellmayr, l.c., 90, A, Heft 2, p. 176, 1924—Silla de Caracas, Loma Redonda, and Galipán, Cerro del Avila, Venezuela (crit.); Chapman, Amer. Mus. Nov., 191, p. 12, 1925—Neverí, Latal, and Caracas, Sucre, Venezuela.

*Calospiza guttulata chrysophrys* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1029, 1131, 1912—part, Venezuela (Cumaná to Caracas and "Puerto Cabello") and "Ecuador (Mindos bei Quito)."

*Range*.—Subtropical zone of northern Venezuela from Sucre to Carabobo;<sup>1</sup> (?) western Ecuador (Mindó).

3: Venezuela (Maracay, Aragua, 2; unspecified, 1).

**\**Calospiza chrysophrys bogotensis* (Hellmayr and Seilern).<sup>2</sup>**  
EAST-ANDEAN SPOTTED Tanager.

*Tangara guttulata bogotensis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 57, 1912—"Bogotá," Colombia (type in Munich Museum); Chapman, Bull. Amer. Mus. N. H., 36, p. 594, 1917—Buena Vista, east slope of eastern Andes, Colombia.

*Calliste guttulata* (not of Bonaparte) Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá."

*Calliste guttulata* (not *Callispiza guttulata* Cabanis) Sclater, Proc. Zool. Soc. Lond., 24, p. 249, 1856—part, New Grenada ("Bogotá"); idem, Monog. Gen. Calliste, p. 21, 1857—part, "Bogotá"; idem, Cat. Coll. Amer. Bds., p. 64,

<sup>1</sup> Specimens from Sucre appear to be identical with those from farther west, showing no approach to the Trinidad race (*C. c. trinitatis*).

*Additional material examined*.—Sucre: Santa Ana, 4; Quebrada Secca, 9; Cumanacoa, 3.—Dept. Federal: Galipán, Cerro del Avila, 19; Loma Redonda, 7; Silla de Caracas, 1.—Carabobo: Cumbre de Valencia, 7; Cumbre Chiquita, 7; Las Quiguas, 6.—Ecuador: "Quito," 1 (type of *C. guttulata*).

<sup>2</sup> *Calospiza chrysophrys bogotensis* (Hellmayr and Seilern): Nearest to *C. c. chrysophrys*, but pileum grass green like the back, not more yellowish than the latter; the blackish central spots to the dorsal feathers smaller and less conspicuous; no distinct yellow frontal band or superciliaries, these parts being hardly a little more yellowish green than the crown; cheeks and auriculars nearly grass green. Wing, 68–72, (female) 65–66; tail, 49–53, (female) 48–50.

*Additional material examined*.—Colombia: "Bogotá," 9; Bucaramanga, 1; Buena Vista, 1.



1862—part, spec. b, "Anolaima," Colombia; Wyatt, Ibis, 1871, p. 325—Santa Rosa and Alto, near Ocaña, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 237—San Cristóbal, Táchira, Venezuela; Berlepsch, Journ. Orn., 32, p. 289, 1884—Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 105, 1886—part, spec. l-p, "Bogotá," Colombia; Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá."

*Calospiza guttata chrysophrys* (not *Calliste chrysophrys* Sclater) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1029, 1131, 1912—part, Venezuela (San Cristóbal) and Colombia.

*Range*.—Subtropical zone of the eastern Andes of Colombia and the adjacent section of Venezuela (San Cristóbal, Táchira).

1: Colombia ("Bogotá," 1).

***Calospiza chrysophrys tolimae* (Chapman).<sup>1</sup> TOLIMA SPOTTED TANAGER.**

*Tangara guttata tolimae* Chapman, Bull. Amer. Mus. N. H., 33, p. 187, 1914—twenty miles west of Honda, Tolima, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 594, 1917—west of Honda.

*Range*.—Subtropical zone of the central Andes of Colombia (twenty miles west of Honda).

**\**Calospiza chrysophrys eusticta* (Todd).<sup>2</sup> COSTA RICAN SPOTTED TANAGER.**

*Tangara guttata eusticta* Todd, Ann. Carnegie Mus., 8, No. 2, p. 202, May, 1912—Boruca, Costa Rica (type in the Carnegie Museum, Pittsburgh); Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 57, 1912—Chiriquí (crit.); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 462, 1928—Boquete Trail, Panama; Griscom, Bull. Mus. Comp. Zool., 69, p. 187, 1929—Cana, eastern Panama (crit.); Peters, l.c., 71, p. 340, 1931—Boquete Trail, Panama; Smith, Auk, 49, p. 497, 1932—El General, Costa Rica.

<sup>1</sup>*Calospiza chrysophrys tolimae* (Chapman): Similar to *C. c. bogotensis* in greenish auriculars and subocular region, yellowish green supra-oral stripe and orbital ring, and small black spots on the back; but throat and breast much more heavily spotted with black and under tail coverts with broad black shaft streaks. Wing (male), 70; tail, 51.

A very interesting connecting link, combining the heavily spotted under parts of *C. c. eusticta* with the coloration of the upper surface and sides of the head of *C. c. bogotensis*.

*Material examined*.—Colombia: twenty miles west of Honda, 1.

<sup>2</sup>*Calospiza chrysophrys eusticta* (Todd): Resembles *C. c. chrysophrys* in yellow frontal band, supra-oral streak, and orbital ring, but differs by much larger black spots underneath, these markings extending up to the chin; black-streaked under tail-coverts; grass green (not yellowish green) pileum and back with much more prominent black central spots, etc. Wing, 68–70, (female) 64–66; tail, 45 (female) to 50 (male). Chiriquí birds are identical with others from Costa Rica.

*Additional material examined*.—Costa Rica: Carrillo, 1; Boruca, 5.—Panama: Boquete, Chiriquí, 4.

*Calliste guttata* (not *Callispiza guttata* Cabanis) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (Angostura, Dota, Turrialba); Frantzius, Journ. Orn., 17, p. 298, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 187—Volcan de Chiriquí, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 267, 1883—part, Costa Rica (Tucurríqui, Angostura, Dota, Turrialba) and Panama (Volcan de Chiriquí); Sclater, Cat. Bds. Brit. Mus., 11, p. 105, 1886—part, spec. q-n, Volcan de Chiriquí and Costa Rica (Tucurríqui, Angostura); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Turrialba, Costa Rica; Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 137, 1893—Boruca, Costa Rica; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 3, 1899—Chiriquí.

*Calospiza guttata chrysophrys* (not *Calliste chrysophrys* Sclater) Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 40, 1902—part, Costa Rica; Bangs, Auk, 24, p. 308, 1907—Boruca and Barránca [de Térraba], Costa Rica; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 278, 1910—Guayábo, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1029, 1131, 1912—part, Chiriquí and Costa Rica.

*Tangara guttata chrysophrys* Carriker, Ann. Carnegie Mus., 6, p. 862, 1910—Bonilla, Guayábo, Buena Vista, Carrillo, El General de Térraba, Juan Viñas, Cariblanco de Sarapiquí, and Boruca, Costa Rica (habits).

*Range*.—Tropical zone of Costa Rica (Caribbean slope and Térraba Valley) and Panama east to Darien (Cana).

5: Costa Rica (Peralta, 2; Guayábo, 1; Boruca, 2).

### *Calospiza varia* (P. L. S. Müller). SMALL SPOTTED TANAGER.

*Tanagra varia* P. L. S. Müller, Natursyst., Suppl., p. 158, 1776—based on "Tangara tacheté, de Cayenne" Daubenton, Pl. Enl., pl. 301, fig. 1;<sup>1</sup> Cayenne.

*Calliste virescens* Sclater, Contrib. Orn., 1851, p. 22, pl. 69, fig. 1—Cayenne (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., p. 56—Cayenne.

*Ixothraupis pusilla* Bonaparte, Rev. Mag. Zool., (2), 3, No. 3 (March), p. 144, 1851—Cayenne (type in Paris Museum).

*Calliste graminea* (not *Tanagra graminea* Spix)<sup>2</sup> Sclater, Tanag. Cat. Spec., pp. 11, 15, 1854 (crit.); idem, Proc. Zool. Soc. Lond., 24, p. 250, 1856—Cayenne and Lower Amazon (descr.); idem, Monog. Gen. Calliste, p. 25, pl. 12, 1857—Cayenne and Surinam; idem, Cat. Coll. Amer. Bds., p. 64, 1862—Cayenne; idem, Cat. Bds. Brit. Mus., 11, p. 106, 1886—Cayenne and Lower Amazonia.

<sup>1</sup> Daubenton's figure of the "Tangara tacheté, de Cayenne," though rather poor, appears to me unquestionably referable to the bird subsequently described as *C. virescens*. The blue wings and scapulars, together with the nearly uniform green body plumage, are characteristic features of the male of the present species, and exclude all other Guianan Tanagers, even *C. punctata*, which is, moreover, fairly well represented on Daubenton's pl. 133, fig. 1, under the name "Tanagra verd tacheté des Indes."

<sup>2</sup> I am unable to recognize the present species in *Tanagra graminea* Spix, of which the type has disappeared. Cf. footnote on page 94.

*Calospiza graminea* Snethlage, Journ. Orn., 56, p. 498, 1908—Villa Braga, Rio Tapajóz, Brazil.

*Calospiza virescens* Berlepsch, Nov. Zool., 15, p. 114, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1030, 1131, 1912—Cayenne, Surinam, and Brazil (Rio Tapajóz); Snethlage, Bol. Mus. Goeldi, 8, p. 445, 1914—Villa Braga, Rio Tapajóz.

*Range*.—French and Dutch Guiana and northern Brazil (Villa Braga and Miritituba, Rio Tapajóz).<sup>1</sup>

\**Calospiza xanthogastra* (Sclater).<sup>2</sup> YELLOW-BELLIED SPOTTED TANAGER.

*Calliste xanthogastra* Sclater, Contrib. Orn., 1851, Part 1, p. 23, Jan., 1851—“Rio Negro,” Brazil (type in coll. of P. L. Slater, now in British Museum); idem, l.c., 1851, p. 55—same locality; idem, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quijos, Ecuador; idem, l.c., 23, p. 157, 1855—“Bogotá”; idem, l.c., 24, p. 249, 1856—Colombia (“Bogotá”), eastern Peru, and Quijos, Ecuador (descr.); idem, Monog. Gen. Calliste, p. 23, pl. 11, 1857—Colombia (“Bogotá”), Ecuador (Quijos), and Peru (Maynas); idem, Cat. Coll. Amer. Bds., p. 64, 1862—“Bogotá” and “Upper Amazon”; Slater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—Upper Ucayali, Peru; idem, l.c., 1867, p. 977—Pebas, Peru; idem, l.c., 1873, p. 261—upper Ucayali and Pebas, Peru; Taczanowski, l.c., 1874, p. 514—Paltaypampa, Peru; idem, l.c., 1882, p. 11—Huambo, Peru; idem, Orn. Pér., 2, p. 461, 1884—Peruvian localities; Salvin, Ibis, 1885, p. 209—Roraima and Kukenam, British Guiana; Slater, Cat. Bds. Brit. Mus., 11, p. 106, 1886—Pebas (Peru), Sarayacu and Rio Napo (Ecuador), Colombia, and British Guiana (Roraima, Kukenam); Allen, Bull. Amer. Mus. N. H., 2, pp. 71, 81, 1889—Rio Napo, Ecuador, and Mipiri, Bolivia; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Rio Zamora, Rio Santiago, and Gualaquiza, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 19, 1902—Nicare, Caura River, Venezuela.

*Calliste punctata* var.  $\beta$  *xanthogastra* Dubois, Bull. Acad. Roy. Belg., 38, p. 128, 1874 (range).

*Ixothraupis chrysogaster* Bonaparte, Rev. Mag. Zool., (2), 3, No. 3, p. 144, March, 1851—Colombia (type in coll. of M. Eyroll, probably lost).

*Calospiza xanthogastra* Ihering, Cat. Faun. Braz., 1, p. 353, 1907 (range); Snethlage, Journ. Orn., 56, p. 10, 1908—Antimary, Rio Acre, Brazil; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B.

<sup>1</sup> In the Carnegie Museum, Pittsburgh, I have examined a male just beginning its juvenile molt. It was secured by S. M. Klages on Feb. 18, 1920, at Miritituba, Rio Tapajóz. Comparison of adults from Brazil is desirable.

*Material examined*.—French Guiana: Cayenne, 3.—Dutch Guiana: Surinam, 1.—Brazil: Miritituba, Rio Tapajóz, 1.

<sup>2</sup> *Calospiza xanthogastra* (Sclater) is a close ally and apparently the western representative of *C. varia*, with which it may ultimately prove to be conspecific. The two birds agree in proportions and general style of coloration, though *C. xanthogastra* is much more spotted throughout and less bluish on the scapulars and flight-quills.

93, 1911—"Quito" (errore) and Rio Napo, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1029, 1131, 1912 (range, crit.); Sneath, Bol. Mus. Goeldi, 8, p. 444, 1914—Antimary, Rio Acre.

*Calospiza xanthogaster* Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, eastern Ecuador.

*Tangara xanthogastra* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 172, 1916—Nicare, Caura, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 594, 1917—La Morelia, Caquetá, Colombia; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 20, 1920—Chaquimayo, Dept. Puno, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 656, 1926—Zamora, Macas region, Rio Suno, and below San José, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 440, 1930—Rio Colorado, Chanchamayo, Peru (crit.).

*Tangara xanthogaster* Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 74, 1928—San José, Ecuador.

*Calliste xanthogastra rostrata* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 339—La Merced, Chanchamayo, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 182, 1927).

*Calospiza xanthogastra rostrata* Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Nuevo Loreto, near Tayabamba, Peru.

*Range*.—Tropical zone of Amazonia, from eastern Colombia (Cuembí, Rio Putumayo; La Morelia, Caquetá) south through Ecuador and Peru to northern Bolivia (Mapiri) and east to Venezuela (Nicare, Caura River) and extreme western Brazil (Antimary, Rio Acre), and Subtropical zone of British Guiana (Kukenam and Roraima, alt. 5,000–6,000 ft.).<sup>1</sup>

2: Peru (Rio Colorado, Chanchamayo Valley, 1; Rioja, 1).

\**Calospiza rufigula* (Bonaparte). RUFIOUS-THROATED TANAGER.

*Tanagrella rufigula* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, No. 3 (séance du 20 jan.), p. 77, 1851—Ecuador<sup>2</sup> (type in Paris Museum); idem, Rev. Mag. Zool., (2), 3, No. 3 (March), p. 130, 1851—Ecuador.

*Calliste rufigula* Sclater, Contrib. Orn., 1851, p. 55—Ecuador; idem, Proc. Zool. Soc. Lond., 24, p. 19, 1856—vicinity of Quito, Ecuador.

*Calliste rufigularis* Sclater, Proc. Zool. Soc. Lond., 24, p. 250, 1856—vicinity of Quito, Ecuador (descr.; substitute for *T. rufigula* Bonaparte); idem,

<sup>1</sup> The proposed Peruvian race *rostrata* appears to be invalid. Some specimens have indeed larger, stouter bills, but the majority cannot be separated in this or any other way from more northern examples, so far as I can see. A single adult male from Roraima is not different either.

*Additional material examined*.—Colombia: "Bogotá," 8; Cuembí, Rio Putumayo, 1.—Ecuador: Rio Napo, 1; El Loreto, 2; Sarayacu, 1; Canelos, 2.—Peru: Nuevo Loreto, 2; La Merced, Chanchamayo, 1; Chaquimayo, Carabaya, 1.—British Guiana: Roraima (alt. 6,000 feet), 1.

<sup>2</sup> According to Sclater (Monog. Gen. Calliste, p. 28, 1857; Proc. Zool. Soc. Lond., 27, p. 440, 1859), the type came from Calacali, twelve miles north of Quito.



Monog. Gen. Calliste, p. 27, pl. 13, 1857—Ecuador (Calacali, vicinity of Quito); idem, Proc. Zool. Soc. Lond., 27, p. 440, 1859—"Rio Napo"; idem, l.c., 28, p. 86, 1860—Nanegal, Ecuador; idem, Cat. Coll. Amer. Bds., p. 65, 1862—Nanegal; idem, Cat. Bds. Brit. Mus., 11, p. 107, 1886—Ecuador (Nanegal, "Quito," Intag, "Sarayacu") and Colombia (Pasto); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nanegal; Hartert, Nov. Zool., 5, p. 481, 1898—Paramba, Ecuador; Goodfellow, Ibis, 1901, p. 406—Mindó, Intag, and other localities in the western Andes between 5,000 and 6,000 feet, Ecuador.

*Calospiza rufigularis* Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Équat., 9, p. B. 94, 1911—Gualea, Ecuador.

*Calospiza rufigula* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1102—La Selva (alt. 4,600 feet), San Juan slopes of the western Andes, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1030, 1912—Ecuador (Nanegal, Quito, Gualea, Intag, Paramba, "Sarayacu," "Rio Napo") and southern Colombia (Pasto); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 83, 1922—Gualea, Ecuador.

*Tangara rufigula* Chapman, Bull. Amer. Mus. N. H., 36, p. 594, 1917—Gallera, Buenavista (Nariño), and Ricaurte, western Andes of Colombia; idem, l.c., 55, p. 656, 1926—Mindó and La Chonta, Ecuador.

*Range*.—Western slope of the western Andes of Colombia and Ecuador, chiefly in the Subtropical zone.<sup>1</sup>

2: Ecuador ("Quito," 1; unspecified, 1).

### *Calospiza arthus arthus* (Lesson).<sup>2</sup> VENEZUELAN GOLDEN TANAGER.

*Tanagra arthus* Lesson, Illustr. Zool., livr. 3, pl. 9, Oct., 1832—"Nova Hispania," we substitute Caracas, Venezuela (type in coll. of Florent Prévost, probably lost).

*Calliste arthus* Bonaparte, Consp. Gen. Av., 1, (1), p. 235, 1850—"Mexico" (errore).

*Calliste arthusi* Sclater, Contrib. Orn., 1851, p. 53—Venezuela; idem, Proc. Zool. Soc. Lond., 24, p. 251, 1856—"Cariaco" and Caracas, Venezuela (descr.); idem, Monog. Gen. Calliste, p. 35, pl. 16, 1857—Venezuela (estate Curiana, above Cariaco; Caracas); idem, Cat. Coll. Amer. Bds., p. 65, 1862—Venezuela; idem, Cat. Bds. Brit. Mus., 11, p. 109, 1886—Venezuela.

*Calospiza arthusi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1030, 1912—Venezuela.

*Chrysothraupis arthus* Bonaparte, Rev. Mag. Zool., (2), 3, p. 142, 1851—part (excl. hab. Peru).

<sup>1</sup> Records from "Rio Napo" and "Sarayacu" are unquestionably erroneous. *Additional material examined*.—Colombia: La Selva, San Juan slopes, 1.—Ecuador: "Quito," 3; Gualea, 5; Mindó, 5; Paramba, 1.

<sup>2</sup> This and the seven succeeding races constitute a natural specific entity, representing each other geographically and differing one from another merely in intensity and details of coloration.

*Tangara arthus* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 58, 1912—Cumbre de Valencia, Cumbre Chiquita, Paso Hondo (San Esteban Valley), and Las Quiguas, Carabobo (crit., plumages); Hellmayr, l.c., 90, A, Heft 2, p. 177, 1924—Silla de Caracas and Galipán, Cerro del Avila, Dept. Federal, and near Bucarito, Tocuyo, Lara (crit.).

*Range*.—Subtropical zone of northern Venezuela, from the Caracas region west to Lara (near Bucarito, Tocuyo).<sup>1</sup>

***Calospiza arthus sclateri* (Lafresnaye).<sup>2</sup> SCLATER'S GOLDEN TANAGER.**

*Cal[liste] sclateri* [sic] Lafresnaye, Rev. Mag. Zool., (2), 6, p. 207, 1854—"Colombie" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 400, 1930).

*Calliste sclateri* Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 251, 1856—"Bogotá" (descr.); idem, Monog. Gen. Calliste, p. 31, pl. 14, fig. 1, 1857—"Bogotá" (monog.); idem, Cat. Coll. Amer. Bds., p. 65, 1862—"Bogotá"; Dubois, Bull. Acad. Roy. Belg., 38, p. 126, 1874 (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 108, 1888—"Bogotá."

*Calospiza sclateri* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1030, 1912—"Bogotá."

*Tangara sclateri* Chapman, Bull. Amer. Mus. N. H., 36, p. 595, 1917 (crit.).

*Calliste aurulenta* (not *Tanagra aurulenta* Lafresnaye) Sclater, Contrib. Orn., 1851, p. 52—Colombia (in part).

*Range*.—Eastern Colombia (only known from native "Bogotá" collections).

<sup>1</sup> Its occurrence in northeastern Venezuela (mountains of Sucre) is open to doubt. Sclater claims that the late H. Dyson obtained specimens on his estate Curiana above Cariaco, and the Tring Museum has an adult male collected by H. Mocquerys, said to be from "Caripé, Jan., 1894." However, both collectors, who worked also in other parts of Venezuela, were not particularly careful about labeling, and, as no other naturalist ever found the present species in that district of Venezuela, more trustworthy evidence seems imperative.

There is no difference whatever between series from the Caracas region and Carabobo, and two adult males from Lara (mountains near Bucarito) are also similar.

*Material examined*.—Venezuela, Dept. Federal: Silla de Caracas, 4; Galipán, Cerro del Avila, 11.—Carabobo: La Cumbre de Valencia, 10; Cumbre Chiquita, 3; Las Quiguas, 3; Paso Hondo, San Esteban Valley, 2.—Lara: near Bucarito, Tocuyo, 2.

<sup>2</sup> *Calospiza arthus sclateri* (Lafresnaye) differs readily from *C. a. arthus* by lacking the yellow color on throat and middle of belly, the entire under parts being nearly uniform reddish brown (almost amber brown), much deeper than the raw sienna of *C. a. occidentalis* or the golden aniline yellow of *C. a. aurulenta* and *C. a. goodsoni*.

The range of this form remains to be determined, it being known only from native "Bogotá" skins. It probably replaces the allied races in the Subtropical zone of the eastern slope of the eastern Andes of Colombia.

*Material examined*.—Colombia: "Bogotá," 9.

**\*Calospiza arthus aurulenta** (Lafresnaye). GOLDEN TANAGER.

*Tanagra* (*Aglaia*) *aurulenta* Lafresnaye, Rev. Zool., 6, p. 290, 1843—"Colombie" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 400, 1930).

*Calliste aurulenta* Bonaparte, Consp. Gen. Av., 1, (1), p. 235, 1850—Colombia (ex Lafresnaye); Sclater, Contrib. Orn., 1851, p. 52—Colombia (in part); idem, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 250, 1856—"Bogotá" (descr.); idem, Monog. Gen. Calliste, p. 29, pl. 14, fig. 2, 1857—part, New Grenada; idem, Cat. Coll. Amer. Bds., p. 65, 1862—part, spec. c, d, "Bogotá"; idem, Cat. Bds. Brit. Mus., 11, p. 108, 1886—part, spec. a-e, "Bogotá," Colombia; Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1857—"Bogotá."

*Chrysothraupis aurulenta* Bonaparte, Rev. Mag. Zool., (2), 3, p. 142, 1851—Colombia (crit.).

*Aglaia aurulenta* Lafresnaye, Rev. Mag. Zool., (2), 6, p. 207, 1854—Colombia (descr.).

*Calospiza aurulenta* Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Ibagué; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1030, 1131, 1912—part, "Bogotá."

*Tangara aurulenta aurulenta* Chapman, Bull. Amer. Mus. N. H., 36, p. 594, 1917—La Candela, Fusugasugá, Aguadita, El Roble, and Subia, Colombia.

*Range*.—Subtropical zone of the mountains bordering the Magdalena Valley, viz., west slope of the eastern Andes (Fusugasugá, Aguadita, El Roble, Subia) and east slope of the central Andes (Ibagué, La Candela) in eastern Colombia.<sup>1</sup>

3: Colombia ("Bogotá," 2; El Roble, 1).

**\*Calospiza arthus occidentalis** (Chapman).<sup>2</sup> WESTERN GOLDEN TANAGER.

*Tangara aurulenta occidentalis* Chapman, Bull. Amer. Mus. N. H., 33, p. 188, 1914—San Antonio, western Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 595, 1917—part, Las Lomitas, San Antonio, Gallera, Cocal, Miraflores, and La Frijolera, western and central Andes of Colombia.

<sup>1</sup> A single specimen from La Candela (eastern slope of the central Andes) agrees well with Bogotá skins, of which twelve have been available for comparison.

<sup>2</sup> *Calospiza arthus occidentalis* (Chapman): Similar to *C. a. aurulenta*, but under parts more richly colored, approaching raw sienna rather than golden aniline yellow; edges to dorsal feathers darker, cadmium yellow like the crown instead of paler; those of wing coverts and secondaries decidedly golden yellow, not greenish; bill on average larger.

*Additional material examined*.—Colombia, western Andes: Pueblo Rico, 1; Frontino, 1; San Antonio, 1; Las Lomitas, 2; Riolima, 2; Gallera, 2.—Central Andes: La Frijolera, 2.

*Calliste aurulenta* (not *Tanagra aurulenta* Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 498—Concordia and Frontino, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 108, 1886—part, spec. f-h, Frontino and Antioquia, Colombia.

*Calospiza aurulenta* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1030, 1912—part, Frontino, Antioquia.

*Calospiza aurulenta aurulenta* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1102—Pueblo Rico, San Juan slopes of Colombia.

*Range*.—Subtropical zone of western Colombia, in the western Andes and on the west slope of the central Andes (on the Pacific side south to the Rio Patia).

5: Colombia (Gallera, west of Popayán, Cauca, 1; Rio Lima, 3; San Antonio, Cauca, 1).

***Calospiza arthus goodsoni* (Hartert).<sup>1</sup> GOODSON'S GOLDEN TANAGER.**

*Tanagra aurulenta goodsoni* Hartert, Bull. Brit. Orn. Cl., 33, p. 78, 1913—Gualea, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York); Chapman, Bull. Amer. Mus. N. H., 55, p. 657, 1926—western Ecuador (Gualea, Rios Coco and Chimbo, Pallatanga, El Chiral, Zaruma, Portovelo, Punta Santa Ana, Salvias, San Bartolo, Alamor).

*Calospiza aurulenta goodsoni* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 83, 1922—road to Nanegal, Ecuador.

*Calliste aurulenta* (not *Tanagra aurulenta* Lafresnaye) Sclater, Monog. Gen. Calliste, p. 29, 1857—part, "vicinity of Quito," Ecuador; idem, Proc. Zool. Soc. Lond., 27, p. 140, 1859—Pallatanga, Ecuador; idem, l.c., 28, pp. 86, 87, 1860—Nanegal, Ecuador; idem, Cat. Coll. Amer. Bds., p. 65, 1862—part, spec. a, b, Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 544—Cayandede, Ecuador; idem, l.c., 1884, p. 288—Cayandede (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 108, 1886—part, spec. i-m, Ecuador ("San José," Pallatanga); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—"near Quito," Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—Intac and Gualea, Ecuador; Goodfellow, Ibis, 1901, p. 461—Intag and Santo Domingo, Ecuador.

<sup>1</sup>*Calospiza arthus goodsoni* (Hartert): Nearest to *C. a. occidentalis*, but crown decidedly paler, less deeply cadmium yellow; rump clearer yellow; under parts less brownish, golden aniline yellow as in *C. a. aurulenta*. This form resembles *C. a. occidentalis* in the golden yellow edgings to the dorsal feathers, wing coverts, and secondaries, but is nearer to *C. a. aurulenta* in the coloration of the ventral surface, while the upper part of the head is paler, less orange than in either. Birds from extreme southern Colombia (San Pablo), except by slightly darker rump, agree perfectly with those from Ecuador.

*Material examined*.—Colombia: San Pablo, Prov. Tuqueres, 4.—Western Ecuador: Paramba, 2; San Nicolas, 1; Gualea, 6; Intag, 6; Santo Domingo, 2; unspecified, 4.



*Calospiza aurulenta* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 94, 1911—Gualea and San Nicolas, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1030, 1131, 1912—part, western Ecuador (San Pablo, Nanegal, Gualea, Pallatanga, "San José," Cayandeled, Intag, Santo Domingo).

(?)*Tangara aurulenta occidentalis* (not of Chapman, 1914) Chapman, Bull. Amer. Mus. N. H., 36, p. 595, 1917—part, Ricaurte, Nariño, Colombia.

*Range*.—Subtropical zone of western Ecuador and extreme south-western Colombia (San Pablo, Prov. Tuqueres).

***Calospiza arthus aequatorialis* (Taczanowski and Berlepsch).<sup>1</sup>  
EAST ECUADORIAN GOLDEN TANAGER.**

*Calliste pulchra aequatorialis* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 77—Machay and Mapoto, eastern Ecuador (type, from Machay, Rio Pastaza, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 182, 1927).

*Calospiza pulchra aequatorialis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1031, 1912—eastern Ecuador (Rio Napo, Sarayacu, Machay, Mapoto).

*Tangara pulchra aequatorialis* Chapman, Bull. Amer. Mus. N. H., 55, p. 657, 1926—eastern Ecuador (Zamora, Sabanilla, below San José, lower Sumaco, Archidona, Baeza, below Oyacachi, and Rio Sardinias).

*Calliste pulchra* (not *Callospiza pulchra* Tschudi) Sclater, Proc. Zool. Soc. Lond., 24, p. 251, 1856—part, Quixos, Ecuador; idem, Monog. Gen. Calliste, p. 33, pl. 55, 1857—part, Rio Napo, Ecuador; idem, Proc. Zool. Soc. Lond., 26, p. 74, 1858—Rio Napo; idem, Cat. Coll. Amer. Bds., p. 65, 1862—Rio Napo; Dubois, Bull. Acad. Roy. Belg., 38, p. 126, 1874—Ecuador (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 109, 1886—part, spec. a-f, eastern Ecuador (Rio Napo, Sarayacu, Machay).

*Calospiza pulchra* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 94, 1911—Gualaquiza, Ecuador.

*Range*.—Subtropical zone of eastern Ecuador.

**\**Calospiza arthus pulchra* (Tschudi). TSCHUDI'S GOLDEN  
TANAGER.**

*Callospiza pulchra* Tschudi, Arch. Naturg., 10, (1), p. 285, 1844—Peru (type in Neuchâtel Museum examined); idem, Untersuch. Faun. Peru., Aves, p. 200, pl. 18, fig. 2, 1846—wood region of eastern Peru; Lafresnaye, Rev. Mag. Zool., (2), 6, p. 206, 1854 (ex Tschudi).

<sup>1</sup> *Calospiza arthus aequatorialis* (Taczanowski and Berlepsch) differs from *C. a. pulchra* by lacking the well-defined chestnut gular patch, the throat and fore-neck being instead washed with xanthine orange or dull orange rufous, this color passing gradually into the golden yellow of the belly. From *C. a. goodsoni*, of western Ecuador, it may be distinguished by larger size, more extensively black loreal region and chin-spot, green margins to wing-coverts and secondaries, much more orange upper part of the head, the orange tinge on throat and foreneck, pure white instead of buffy under wing coverts, etc. Wing, 78-82; tail, 56-60.

*Material examined*.—Ecuador: Rio Pastaza, 2; Rio Napo, 2; Gualaquiza, 1; Machay, 1; Mapoto, 1; Sarayacu, 2; "Govinda," 2; unspecified, 3.

*Chrysolhraupis arthus* (not *Tanagra arthus* Lesson) Bonaparte, Rev. Mag. Zool., (2), 3, p. 142, 1851—part, Peru.

*Calliste aurulenta* (not *Tanagra aurulenta* Lafresnaye) Selater, Contrib. Orn., 1851, p. 52—part, Peru.

*Calliste pulchra* Selater, Proc. Zool. Soc. Lond., 24, p. 251, 1856—part, Peru; idem, Monog. Gen. Calliste, p. 33, 1857—part, Peru; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Amable Maria, Dept. Junín, Peru; idem, l.c., 1882, p. 11—Huambo; idem, Orn. Pér., 2, p. 462, 1884—part, Huambo, Amable Maria, and Ropaybamba; Selater, Cat. Bds. Brit. Mus., 11, p. 109, 1886—part, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 340—La Gloria and Garita del Sol, Dept. Junín, Peru.

*Calospiza pulchra* Berlepsch and Hellmayr, Journ. Orn., 53, p. 7, 1905—Peru (note on type); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1030, 1912—Peru (Huambo, Huayabamba, Amable Maria, Ropaybamba, La Gloria, Garita del Sol); Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Cueva Seca, near Tayabamba, Peru.

*Tangara pulchra pulchra* Bangs and Noble, Auk, 35, p. 459, 1918—Charapi, Prov. Jaen, Peru.

*Tangara aurulenta pulchra* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 440, 1930—Huachipa, Dept. Huánuco, Peru (crit.).

*Range*.—Tropical and Subtropical zones of Peru from Prov. Jaen south to Dept. Junín.<sup>1</sup>

5: Peru (Huachipa, 4; Chanchamayo, 1).

### *Calospiza arthus sophiae* (Berlepsch).<sup>2</sup> SOPHIA'S GOLDEN TANAGER.

*Calliste sophiae* Berlepsch, Journ. Orn., 49, p. 83, 1901—Songo, Yungas of La Paz, Bolivia (type in Berlepsch Collection, now in Senckenberg Museum, Frankfurt).

*Calospiza pulchra sophiae* Berlepsch and Stolzmann, Ornith., 13, p. 109, 1906—Huaynapata and Rio Cadena, Marcapata, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1031, 1912—southeastern Peru and Bolivia.

*Tangara pulchra sophiae* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 21, 1920—Chaquimayo, Carabaya, Peru (crit.).

<sup>1</sup> Specimens vary somewhat in the intensity of the chestnut gular patch as well as in the tone of the orange crown and of the greenish yellow margins on the mantle, but the series examined is much too small to ascertain the significance of this variation.

*Additional material examined*.—Peru: Huambo, 2; Huayabamba, 1; La Gloria, Chanchamayo, 1; unspecified, 1 (the type).

<sup>2</sup> *Calospiza arthus sophiae* (Berlepsch): Nearest to *C. a. pulchra*, but top of the head, sides of neck, subocular region, and rump much paler, light cadmium rather than cadmium yellow; edges to dorsal feathers more greenish yellow; black auricular patch larger; chestnut gular patch duller; breast and abdomen less orange, nearer to aniline yellow. Wing, 76–81, (female) 71–75; tail, 51–56, (female) 50–54.

Birds from southeastern Peru agree with a topotype from Songo.

*Material examined*.—Bolivia: Songo, 1.—Peru: Chaquimayo, Carabaya, 2; Huaynapata, Marcapata, 6; Marcapata, 6.

*Calliste pulchra* (not *Callospiza pulchra* Tschudi) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 185, 186—San Antonio, Cuzco, Peru (crit.); idem, l.c., 1879, p. 598—Tiltilo, Bolivia; Taczanowski, Orn. Pér., 2, p. 462, 1884—part, San Antonio, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 109, 1886—part, spec. g-i, Peru (San Antonio, Cuzco) and Bolivia.

*Range*.—Tropical zone of southeastern Peru (depts. of Cuzco and Puno) and western Bolivia (Yungas of La Paz).

**\**Calospiza icterocephala* (Bonaparte). SILVER-THROATED TANAGER.**

*Calliste icterocephala* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, No. 3 (séance du 20 janv.), p. 76, 1851—Ecuador = Valley of Punta Playa, near Quito (type in Paris Museum); Sclater, Contrib. Orn., 1851, p. 53, pl. 70, fig. 1—Ecuador (type stated to have been obtained in the valley of Punta Playa); idem, Proc. Zool. Soc. Lond., 26, p. 251, 1856—Punta Playa, Ecuador; idem, Monog. Gen. Calliste, p. 37, pl. 17, 1857—same locality; idem, Proc. Zool. Soc. Lond., 28, p. 87, 1860—Nanegal, Ecuador; idem, Cat. Coll. Amer. Bds., p. 65, 1862—Nanegal; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Cordillera de Tolé and Santa Fé, Veraguas (crit.); idem, l.c., 1870, p. 186—Volcan de Chiriquí and Veraguas (Boquete de Chitrá, Cordillera del Chucú, Calovévora); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (San José, Barránca, Turrialba, Dota); Frantzius, Journ. Orn., 17, p. 298, 1869—Costa Rica (Candelaria Mountains, Dota, Turrialba, Barránca); Boucard, Proc. Zool. Soc. Lond., 1878, p. 54—Naránjo and Orosí, Costa Rica; Sclater and Salvin, l.c., 1879, p. 498—Frontino, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 269, 1883—Costa Rica to Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 110, 1886—Costa Rica, Veragua, Chiriquí, Colombia (Frontino, "Pasto"), and Ecuador (Nanegal, "Napó"); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (Cartago, Naránjo de Cartago, Santa María de Dota); Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 137, 1893—Boruca, Costa Rica; l.c., 6, p. 13, 1895—San Marcos, Costa Rica; Goodfellow, Ibis, 1901, p. 461—Santo Domingo, Gualea, and Intag, Ecuador.

*Chrysothraupis icterocephala* Bonaparte, Rev. Mag. Zool., (2), 3, No. 3 (March), pp. 129, 143, 1851—Ecuador<sup>1</sup> (diag.).

*Callispiza icterocephala* Salvadori, Atti. Accad. Sci. Torino, 4, p. 174, 1868—Costa Rica (crit.).

*Callispiza (Chrysothraupis) frantzii* Cabanis, Journ. Orn., 9, p. 87, 1861—Costa Rica (type in Berlin Museum).

*Calliste frantzii* Sclater, Ibis, 1863, p. 451—Costa Rica; idem, Ibis, 1868, p. 72—Costa Rica (crit.).

*Calospiza icterocephala* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 37, 1902—Costa Rica to Ecuador (monog.); Bangs, Proc. New Engl. Zool. Cl., 3,

<sup>1</sup> Ridgway's quotation (in Bull. U. S. Nat. Mus., 50, Part 2, p. 39) of "Bois de Bagnos, Tonguaragua" [sic] for this species is erroneous. The locality in question refers to *bourcierii*, as is evident from the text in Bonaparte's paper.



p. 65, 1902—Boquete and Volcan de Chiriquí, Panama; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 278, 1910—Guayábo, Costa Rica; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1103—Pueblo Rico, San Juan slopes, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1031, 1912—Costa Rica to Ecuador.

*Tangara icterocephala* Carriker, Ann. Carnegie Mus., 6, p. 864, 1910—Costa Rica (many localities; plumages, habits); Chapman, Bull. Amer. Mus. N. H., 36, p. 595, 1917—Gallera, western Andes of Colombia; idem, l.c., 55, p. 658, 1926—"Quito," Zaruma, Punta Santa Ana, Las Piñas, and Alamor, western Ecuador (crit.).

*Range*.—Subtropical zone of Costa Rica, western Panama (Chiriquí and Veraguas), and of the western Andes of Colombia (Frontino, Pueblo Rico, Gallera) and Ecuador.<sup>1</sup>

12: Costa Rica (Boruca, 3; Guayábo, 1; Limón, 1; Peralta, 2; Santa Cruz de Turrialba, 3); Panama (unspecified, 1); Veragua(?), 1.

\**Calospiza xanthocephala venusta* (Sclater).<sup>2</sup> YELLOW-CROWNED TANAGER.

*Calliste venusta* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 248, pub. April, 1855—"in Nova Grenada et in rep. Equatorianae provincia Quijos" (type from "Bogotá" in coll. of P. L. Sclater, now in British Museum); idem, l.c., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 264, 1856—"Bogotá," Colombia, and Quixos, Ecuador; idem, l.c., 26, p. 74, 1858—Rio Napo, Ecuador; idem, Monog. Gen. Calliste, p. 101, pl. 44, fig. 2, 1857—Colombia ("Bogotá") and eastern Ecuador (upper Rio Napo); idem, Cat. Coll. Amer. Bds., p. 72, 1862—Bogotá and "Rio Napo"; Wyatt, Ibis, 1871, p. 325—near Alto (Ocaña), Colombia; Dubois, Bull. Acad. Roy. Belg., 38, p. 128, 1874 (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Frontino, western Andes of Colombia; Berlepsch and Taczanowski, l.c., 1884, p. 289—Cayanded, western Ecuador (one female); idem, l.c., 1885, p. 80—Machay, Ecuador; Taczanowski, Orn. Pér., 2, p. 476, 1884—Tambillo, northwestern Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 133, 1886—Colombia ("Bogotá," Antioquia) and Ecuador ("Quito"); Goodfellow, Ibis, 1901, p. 463—Canzacota (alt. 6,500 feet), western Ecuador, and Baeza (alt. 5,500 feet), eastern Ecuador.

<sup>1</sup> I am unable to perceive any differences sufficiently constant to justify the retention of a separate Central American form (*frantzii*). Size is not of much consequence, though birds from Costa Rica and Chiriquí, on average, are slightly larger. The yellow or greenish color of the edges to the mantle feathers and the intensity of the yellow portions of the plumage appear to depend largely on age and sex.

*Additional material examined*.—Costa Rica, 12; Boquete, Chiriquí, 10; Calovévora, Veraguas, 1.—Colombia: Pueblo Rico, 2.—Ecuador ("Quito," Gualea, Intac), 10.

<sup>2</sup> *Calospiza xanthocephala venusta* (Sclater) differs from the typical race by decidedly paler, light cadmium instead of cadmium yellow crown.

Specimens from Mérida, the three ranges of the Colombian Andes, and the western and eastern slopes of Ecuador agree well together.

*Additional material examined*.—Venezuela, Mérida: Valle, 3.—Colombia (all three ranges), 15.—Ecuador: Cayanded, 1; Canzacota, 3; Baeza, 4.



*Calospiza venusta* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 98, 1911—"Quito," Ecuador; idem, Rev. Franç. d'Orn., 2, p. 10, 1911—Cueva Seca, Peru;<sup>1</sup> Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1031, 1912—Colombia (Bogotá, Antioquia, Ocaña), Ecuador (both sides), northwestern Peru (Tambillo), and Venezuela (Mérida); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Gualea, western Ecuador.

*Tangara venusta* Chapman, Bull. Amer. Mus. N. H., 36, p. 600, 1917—San Antonio, Cerro Munchique, Andes west of Popayán, La Florida, Cocal, Miraflores, Salento, La Candela, Aguadita, El Roble, and Subia, Colombia; Bangs and Noble, Auk, 35, p. 460, 1918—Charapi, Prov. Jaen, Peru.

*Tangara xanthocephala venusta* Chapman, Bull. Amer. Mus. N. H., 55, p. 665, 1926—Baeza, below Oyacachi, and upper Sumaco, eastern Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 241, 1932—Mera, eastern Ecuador.

*Calliste xanthocephala* (not *Calospiza xanthocephala* Tschudi) Selater, Contrib. Orn., 1851, p. 58—Colombia; idem, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quijos, Ecuador; Taczanowski, l.c., 1879, p. 227—Tambillo, Peru.

*Range*.—Subtropical zone of extreme western Venezuela (Cordillera of Mérida), Colombia (except Santa Marta region), Ecuador (both slopes), and northwestern Peru (Tambillo and Charapi, Prov. Jaen; Cueva Seca, near Tayabamba, Dept. Libertad).

5: Colombia (Cundinamarca, 1); Venezuela (Conejos, near Mérida, 1; Montañas de la Sierra Madre, Mérida, 1; Montañas Sierra, Mérida, 1; Sierra de Mérida, Mérida, 1).

### *Calospiza xanthocephala xanthocephala* (Tschudi).<sup>2</sup> TSCHUDI'S YELLOW-CROWNED TANAGER.

*Calospiza xanthocephala* Tschudi, Arch. Naturg., 10, (1), p. 285, 1844—Peru (type in Neuchâtel Museum examined); idem, Unters. Faun. Peru., Aves, p. 200, pl. 17, fig. 2, 1846—wooded region of eastern Peru.

*Calliste xanthocephala* Selater, Proc. Zool. Soc. Lond., 24, p. 264, 1856—part, Peru; idem, Monog. Gen. Calliste, p. 99, 1857—part, Peru; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 515—Ropaybamba, Junín, Peru; idem, Orn. Pér., 2, p. 475, 1884—Ropaybamba; Selater, Cat. Bds. Brit. Mus., 11, p. 134, 1886—part, spec. f, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—Garita del Sol, Vitoc, Peru.

*Calospiza xanthocephala* Berlepsch and Hellmayr, Journ. Orn., 53, p. 7, 1905—Peru (note on type); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1031, 1912—part, central Peru (Ropaybamba, Garita del Sol, Chanchamayo).

<sup>1</sup> Identical with specimens from eastern Ecuador (Berlioz, in litt.).

<sup>2</sup> *Calospiza xanthocephala xanthocephala* (Tschudi), with its cadmium yellow crown, stands just between the pale-headed *C. x. venusta* and the orange-crowned *C. x. lamprotis*.

Tschudi's type agrees with specimens from the Vitoc Valley.

*Material examined*.—Peru: Garita del Sol, Vitoc, 3; unspecified (the type), 1.

*Chrysothraupis xanthocephala* Bonaparte, Rev. Mag. Zool., (2), 3, p. 143, 1851—Peru (ex Tschudi).

*Tangara xanthocephala xanthocephala* Chapman, Bull. Amer. Mus. N. H., 55, p. 665 (in text), 1926—Chanchamayo region (crit.).

*Range*.—Subtropical zone of eastern-central Peru, in Dept. Junín (Garita del Sol, Vitoc; Ropaybamba, etc.).

***Calospiza xanthocephala lamprotis* (Sclater).<sup>1</sup> ORANGE-CROWNED TANAGER.**

*Calliste lamprotis* Sclater, Contrib. Orn., 1851, p. 65—Bolivia (type in British Museum).

*Calliste xanthocephala* (not *Callospiza xanthocephala* Tschudi) Sclater, Proc. Zool. Soc. Lond., 24, p. 264, 1856—part (descr. et hab. Bolivia); idem, Monog. Gen. Calliste, p. 99, pl. 44, fig. 1, 1857—part, Bolivia; idem, Proc. Zool. Soc. Lond., 26, p. 294, 1858—"from some district in the interior of Peru bordering on Bolivia"; idem, Cat. Coll. Amer. Bds., p. 71, 1862—Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 599—Juanani and Tilotilo, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 134, 1886—part, spec. a-e, Juanani, Bolivia.

*Calospiza xanthocephala* Berlepsch and Stolzmann, Orn. 13, p. 79, 1906—Idma, above Santa Ana, Urubamba, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1031, 1131, 1912—part, Santo Domingo and "Santa Ana," Peru (crit.).

*Calospiza xanthocephala* subsp. Berlepsch and Stolzmann, Orn. 13, p. 110, 1906—Huaynapata, Marcapata, Peru (crit.).

*Tangara xanthocephala xanthocephala* Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—Idma, San Miguel Bridge, and Torontoy, Urubamba, Peru.

*Calospiza xanthocephala lamprotis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1031, 1131, 1912—Bolivia and southeastern Peru (crit.).

*Tangara xanthocephala lamprotes* [sic] Chapman, Bull. Amer. Mus. N. H., 55, p. 665 (in text), 1926—southern Peru (Urubamba Valley) to Bolivia.

*Range*.—Subtropical zone of southeastern Peru (in depts. of Cuzco and Puno) and Bolivia.

**\**Calospiza chrysolis* (Du Bus). GOLDEN-EARED TANAGER.**

*Calliste chrysolis* Du Bus, Esq. Ornith., livr. 2, pl. 7, 1846—Peru (type in Brussels Museum); Sclater, Contrib. Orn., 1851, p. 66—Peru; idem, Proc. Zool. Soc. Lond., 24, p. 263, 1856—Peru (descr.); idem, Monog. Gen.

<sup>1</sup> *Calospiza xanthocephala lamprotis* (Sclater): Similar to *C. x. xanthocephala*, but crown much deeper, orange to cadmium orange. Wing, 73–77, (female) 69–72; tail, 49–53, (female) 46–50.

Birds from Marcapata agree with a Bolivian series, while three from Idma, Urubamba, have the crown slightly paler, orange rather than cadmium orange, thus verging in the direction of *C. x. xanthocephala*.

*Material examined*.—Bolivia: Chaco (Yungas of La Paz), 12; San Antonio, 1; Sandillani, 1; Songo, 2; San Cristóbal, 7.—Peru: Huaynapata, Marcapata, 3; Santo Domingo, Marcapata, 5; Idma, Urubamba, 3.

Calliste, p. 97, pl. 43, 1857—Peru; idem, Proc. Zool. Soc. Lond., 27, p. 440, 1859—Rio Napo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 71, 1862—“Upper Amazon” and Rio Napo; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 12—Chirimoto, Peru; idem, Orn. Pér., 2, p. 475, 1884—Chirimoto; idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 79—Machay, Ecuador (descr. of young); Sclater, Cat. Bds. Brit. Mus., 11, p. 134, 1886—eastern Ecuador (Rio Napo, Machay, “Quito”) and Peru.

*Chrysolhraupis chrysolis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 142, 1851—“Mexico”=Peru.

*Calospiza chrysolis* Berlepsch and Stolzmann, Ornith., 13, p. 110, 1906—Huaynapata, Marcapata, Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1032, 1912—eastern Ecuador (Machay, Rio Napo) and Peru (Chirimoto, Huaynapata).

*Tangara chrysolis* Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—Rio San Miguel, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 665, 1926—eastern Ecuador (“Napo,” Sabanilla, Zamora, below Oyacachi), Peru (Chaupe; Santo Domingo), and Bolivia (crit.).

*Tangara chrysolis cochabambae* Todd, Proc. Biol. Soc. Wash., 37, p. 121, 1924—Yungas of Cochabamba, Bolivia (type in Carnegie Museum).

*Range*.—Subtropical zone of eastern Ecuador (Machay; El Topo, Rio Pastaza; Rio Blanco; below Oyacachi; Sabanilla; Zamora), eastern Peru (Chaupe; Chirimoto, Huayabamba Valley; Chanchamayo; Rio San Miguel, Urubamba; Huaynapata, Marcapata), and northern Bolivia (Yungas of Cochabamba).<sup>1</sup>

1: Peru (Chanchamayo, 1).

**\**Calospiza parzudakii parzudakii* (Lafresnaye). PARZUDAKI'S Tanager.**

*Tanagra parzudakii* Lafresnaye, Rev. Zool., 6, p. 97, 1843—“environs de Santa-Fé-de-Bogotá,” Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 402, 1930).

*Tanagra (Aglaia) parzudaki* Lafresnaye, Mag. Zool., (2), 5, cl. 2, pl. 41, 1843—“Santa-Fé-de-Bogotá,” Colombia.

*Calliste parzudakii* Bonaparte, Consp. Gen. Av., 1, (1), p. 235, 1850—“Bogotá”; Sclater, Contrib. Orn., 1851, p. 66—Colombia; idem, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quijos, eastern Ecuador; idem, l.c., 23, p. 158, 1855—“Bogotá”; idem, l.c., 24, p. 263, 1856—“Bogotá,” Colombia, and Quixos, Ecuador; idem, Monog. Gen. Calliste, p. 93, pl. 41, 1857—

<sup>1</sup> I cannot perceive any difference in the sheen of the green portions of the plumage between Ecuadorian specimens and others from southern Peru and Bolivia (*cochabambae*), but those from the south, except one, have the rufous abdominal area somewhat lighter, ochraceous tawny rather than tawny. Chapman, however, claims this character to be individual and not geographic.

*Additional material examined*.—Eastern Ecuador: El Topo, Rio Pastaza, 1; Machay, 1; Rio Blanco, 1; “Rio Napo,” 2.—Peru: Huaynapata, Marcapata, 4.—Bolivia: Yungas, 1.

same localities (monog.); idem, Cat. Coll. Amer. Bds., p. 71, 1862—"Bogotá"; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 515—Chilpes and Auquimarca, Dept. Junín, Peru; idem, Orn. Pér., 2, p. 474, 1884—same localities; Sclater, Cat. Bds. Brit. Mus., 11, p. 132, 1886—Colombia ("Bogotá") and eastern Ecuador (Jima, Chiquinda, Rio Napo, "Quito"); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—Garita del Sol, Peru; Goodfellow, Ibis, 1901, p. 463—Baeza, Ecuador.

*Chrysothraupis parzudakii* Bonaparte, Rev. Mag. Zool., (2), 3, p. 143, 1851—"Bogotá."

*Calospiza parzudakii* Berlepsch and Stolzmann, Ornith., 13, p. 79, 1906—Idma, Urubamba, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1032, 1912—Colombia, eastern Ecuador, and Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Baeza, Ecuador.

*Tangara parzudaki* Chapman, Bull. Amer. Mus. N. H., 36, p. 600, 1917—La Palma, Aguadita, El Roble, and Subia, Colombia.

*Tangara parzudakii* Chapman, Bull. U. S. Nat. Mus., 117, p. 118, 1921—Idma, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 664, 1926—Sabanilla and Baeza, Ecuador (crit.).

*Tangara parzudakii florentes* Bangs and Noble, Auk, 35, p. 459, 1918—Charapi, northwestern Peru (type in Museum of Comparative Zoology, Cambridge, Mass.); Bangs, Bull. Mus. Comp. Zool., 70, p. 402, 1930 (crit.).

*Range*.—Subtropical zone of Colombia (western slope of eastern Andes and east slope of central Andes), eastern Ecuador, and eastern Peru (Chaupe and Charapi, near Huancabamba; Chilpes, Auquimarca, and Garita del Sol, Dept. Junín; Idma, Urubamba, Dept. Cuzco).<sup>1</sup>

1: Colombia ("Bogotá").

### *Calospiza parzudakii lunigera* (Sclater).<sup>2</sup> BLACK-EARED TANAGER.

*Calliste lunigera* Sclater, Contrib. Orn., 1851, p. 65, pl. 70, fig. 2—"Rio Negro," errore (type now in British Museum);<sup>3</sup> idem, Proc. Zool. Soc. Lond., 24, p. 263, 1856—vicinity of Quito, Ecuador (descr.); idem, Monog. Gen. Calliste, p. 96, pl. 42, 1857—near Calacali, Ecuador (monog.); idem, Proc. Zool. Soc. Lond., 28, p. 87, 1860—Nanegal; idem, Cat. Coll. Amer. Bds., p. 71, 1862—Ecuador (Nanegal and Calacali); Dubois, Bull. Acad.

<sup>1</sup> A single female from Peru (Idma, Urubamba) agrees with specimens from "Bogotá" and Baeza. Chapman has shown *T. p. florentes* to be inseparable. *Additional material examined*.—Colombia: "Bogotá," 10.—Ecuador: Baeza, 3.—Peru: Idma, Urubamba, 1.

<sup>2</sup> *Calospiza parzudakii lunigera* (Sclater) principally differs from typical *C. p. parzudakii* by lacking the red color on the forehead and sides of the face, and is clearly its western representative.

*Material examined*.—Western Ecuador (Cayandeded, Canzacota, Gualea, Milligalli, etc.), 14.

<sup>3</sup> The type was apparently given to P. L. Sclater and passed with his collection into the British Museum (cf. also Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 24, 1899). The original locality, "Rio Negro," was, of course, erroneous, this tanager being restricted to western Ecuador.



Roy. Belg., 38, p. 128, 1874 (crit.); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 289—Cayandede; Sclater, Cat. Bds. Brit. Mus., 11, p. 133, 1886—western Ecuador (Nanegal, "Quito"); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nanegal and "Millegala" [= Milligalli]; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 16, 1899—Gualea, Nanegal, and Intag; Goodfellow, Ibis, 1901, p. 463—Canzacota, Gualea, and lower western slopes of Pichincha (habits).

*Calospiza lunigera* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 97, 1911—San Nicolas; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1032, 1912—western Ecuador.

*Tangara lunigera* Chapman, Bull. Amer. Mus. N. H., 55, p. 664, 1926—near Quito, Gualea, Milligalli, and El Chiral.

*Calospiza parzudakii lunigera* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—near Gualea and Nanegal.

*Range*.—Subtropical zone of western Ecuador.

### *Calospiza rufigenis* (Sclater).<sup>1</sup> RUFIOUS-CHEEKED TANAGER.

*Calliste rufigenis* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 311, pub. March 11, 1857—Venezuela (type in coll. of P. L. Sclater, now in British Museum); idem, Monog. Gen. Calliste, p. 91, pl. 40, 1857—Venezuela (monog.); idem, Cat. Coll. Amer. Bds., p. 71, 1862—Venezuela; idem, Cat. Bds. Brit. Mus., 11, p. 132, 1886—Venezuela.

*Calliste rufigena* (lapsus) Sclater, Proc. Zool. Soc. Lond., 25, p. 66 (in text), 1857.

*Calospiza rufigenis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1032, 1912—"Puerto Cabello," Venezuela.

*Tangara rufigenis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 60, 1912—Cumbre de Valencia, Carabobo (crit.).

*Range*.—Subtropical zone of the north coast mountains of Venezuela, from the vicinity of Caracas west to Lara (near Bucarito, Tocuyo).

### \**Calospiza cyanotis lutleyi* (Hellmayr).<sup>2</sup> BLACK-CHEEKED TANAGER.

*Calliste melanotis* (not *Aglais melanotis* Swainson, 1837) Sclater, Ibis, (3), 6, p. 408, pl. 12, fig. 1, 1876—Rio Napo, Ecuador (type in coll. of P. L. Sclater, now in British Museum); Taczanowski, Proc. Zool. Soc. Lond.,

<sup>1</sup> *Calospiza rufigenis* (Sclater), though very distinct, seems to belong in the neighborhood of *C. labradorides* and allies.

*Material examined*.—Venezuela: Vicinity of Caracas, 3; Cumbre de Valencia, Carabobo, 11; mountains near Bucarito, Tocuyo, Lara, 2.

<sup>2</sup> *Calospiza cyanotis lutleyi* (Hellmayr): Similar to *C. c. cyanotis*, but anterior auriculars black like the rest of the sides of the head, not blue; back black like the crown, not dusky green; superciliaries nearly uniform, lacking the golden hue in the central portion, so conspicuous in three Bolivian specimens; bluish external edges to primaries and rectrices narrower.

∞ Birds from various parts of the range agree pretty well together. *Calliste melanotis* Sclater being invalidated by *Aglais melanotis* Swainson, a synonym of

1882, p. 12—Chirimoto and Achamal, Valley of Huayabamba, Peru; idem, *Orn. Pér.*, 2, p. 473, 1884—Peru (Paltaypampa, Chirimoto, Achamal); idem and Berlepsch, *Proc. Zool. Soc. Lond.*, 1885, p. 79—Machay, Ecuador; Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 131, 1886—Ecuador (Rio Napo) and Peru (Chirimoto); Berlepsch and Stolzmann, *Proc. Zool. Soc. Lond.*, 1896, p. 341—Garita del Sol, Vitoc, Peru.

*Tangara lulleyi* Hellmayr, *Verh. Orn. Ges. Bay.*, 13, Heft 2, p. 198, 1917—new name for *Calliste melanotis* Sclater, preoccupied; Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 663, 1926—eastern Ecuador (Sabanilla and lower Sumaco).

*Calliste cyanotis* (not of Sclater, 1858) Sclater, *Proc. Zool. Soc. Lond.*, 27, p. 441, 1859—Rio Napo, Ecuador; idem, *Ibis*, 1863, p. 451—Rio Napo (descr.); Taczanowski, *Proc. Zool. Soc. Lond.*, 1874, p. 515—Paltaypampa, Peru.

*Calospiza melanotis* Berlepsch and Stolzmann, *Ornis*, 13, p. 79, 1906—Idma, Urubamba, Peru; Ménégaux, *Rev. Franç. d'Orn.*, 2, p. 9, 1911—Nuevo Loreto, near Tayabamba, Peru; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1032, 1912—Colombia ("Bogotá"), Ecuador (Machay, Rio Napo), and Peru (Chirimoto, Achamal, Huayabamba, Paltaypampa, Garita del Sol, Chanchamayo, Idma).

*Tangara melanotis* Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 600, 1917—La Palma, head of Magdalena Valley, Colombia; idem, *Bull. U. S. Nat. Mus.*, 117, p. 118, 1921—Idma, Urubamba, Peru.

*Tangara cyanotis lulleyi* Zimmer, *Field Mus. Nat. Hist., Zool. Ser.*, 17, p. 441, 1930—Huachipa, Huánuco, Peru (crit.).

*Range.*—Subtropical zone of eastern Colombia ("Bogotá"; La Palma), eastern Ecuador (Rio Napo, Machay, Sabanilla, lower Sumaco), and eastern Peru, south to the Urubamba Valley, Dept. Cuzco.

2: Peru (Huachipa, Huánuco, 1; Chanchamayo, 1).

### *Calospiza cyanotis cyanotis* (Sclater). BLUE-CHEEKED TANAGER.

*Calliste cyanotis* Sclater, *Proc. Zool. Soc. Lond.*, 26, p. 294, Nov., 1858—"from some district in the interior of Peru from the neighborhood bordering on Bolivia"<sup>1</sup> (type in coll. of P. L. Sclater, now in British Museum); idem, *Cat. Coll. Amer. Bds.*, p. 71, pl. 9, 1862—"Peru"; idem, *Ibis*, 1876, p. 409, pl. 12, fig. 2—Tilotilo, Yungas, Bolivia; Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1879, p. 599—Tilotilo; Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 131, 1886—"southern Peru" and Bolivia.

*Calospiza cyanotis* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1032, 1912—Bolivia (Tilotilo, Quebrada Onda, Songo).

*C. schrankii* (Spix), I have proposed the new name *T. lulleyi* for the Black-cheeked Tanager.

*Additional material examined.*—Colombia: "Bogotá," 2; La Palma, head of the Magdalena Valley, 1.—Ecuador: Sabanilla, 1; lower Sumaco, 1; Archidona, 2.—Peru: Chirimoto, 1; Chanchamayo, 3; Idma, Urubamba, 2.

<sup>1</sup> The collection, which among others contained such a purely Bolivian species as *Atlapetes rufinucha*, probably originated in the Yungas of La Paz.

*Range*.—Subtropical zone of Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

\**Calospiza labradorides labradorides* (Boissonneau). METALLIC-GREEN TANAGER.

*Tanagra (Aglaia) labradorides* Boissonneau, Rev. Zool., 3, p. 67, 1840—"Santa-Fé-de-Bogotá," Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 402, 1930).

*Tanagra labradorides* Prévost and Des Murs, Voy. Vénus, Atlas, Ois., pl. 5, fig. 2, 1846; idem, l.c., Zool., 5, (1), p. 213, 1849—"Santa-Fé-de-Bogotá."

*Calliste labradorides* Sclater, Contrib. Orn., 1851, p. 57—Colombia; idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 262, 1856—"Bogotá" (descr.); idem, Monog. Gen. Calliste, p. 89, pl. 39, 1857—"Bogotá"; idem, Cat. Coll. Amer. Bds., p. 70, 1862—"Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Concordia and Santa Elena, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 130, 1886—Colombia ("Bogotá," Antioquia, Concordia, Santa Elena, "Pasto") and Ecuador (San Lucas); Goodfellow, Ibis, 1901, p. 463—Gualea, Ecuador.

*Chalcothraupis labradorides* Bonaparte, Rev. Mag. Zool., (2), 3, p. 144, 1851—"Bogotá."

*Calospiza labradorides* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 307, 1899—Ibagué, Colombia; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1109—Pueblo Rico, San Juan slopes, and Riolima, western Andes, Colombia; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 97, 1911—Santo Domingo and Gualea, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1033, 1912—Colombia and western Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Gualea and Mindo, Ecuador.

*Tangara labradorides* Chapman, Bull. Amer. Mus. N. H., 36, p. 600, 1917—Colombia (Las Lomitas, San Antonio, Cerro Munchique, Miraflores, Salento, Santa Elena, El Eden, La Candela, La Palma, Fusugasugá, Aguadita, El Roble, Subia).

*Tangara labradorides labradorides* Chapman, Bull. Amer. Mus. N. H., 55, p. 663, 1926—western Ecuador.

*Range*.—Subtropical zone of Colombia (except Santa Marta region) and western Ecuador (Mindó, Gualea, Santo Domingo).<sup>2</sup>

6: Colombia (Aguadita, above Fusugasugá, 1; "Bogotá," 2; Cauca, 1; San Antonio, Cauca, 2).

<sup>1</sup> *Material examined*.—Bolivia: Songo, Yungas of La Paz, 1; Quebrada Onda, Cochabamba, 1; Yungas of Cochabamba, 1.

<sup>2</sup> Specimens from the western Andes of Colombia agree with others from "Bogotá," and five skins from western Ecuador I am likewise unable to separate. The latter do not show any of the characters ascribed to *C. l. chaupensis*, a form that we have not yet met with, and seem to pertain to typical *labradorides*.

*Additional material examined*.—Colombia: "Bogotá," 26; Concordia, 1; Pueblo Rico, 1; Rio Lima, 1; San Antonio, 6.—Ecuador: Santo Domingo, 1; Gualea, 3; unspecified, 1.

***Calospiza labradorides chaupensis* (Chapman).<sup>1</sup> CHAUPE  
METALLIC-GREEN TANAGER.**

*Tangara labradorides chaupensis* Chapman, Amer. Mus. Nov., **160**, p. 10, Feb., 1925—Chaupe, northeast of Huancabamba, northern Peru (type in the American Museum of Natural History, New York).

*Range*.—Subtropical zone of northwestern Peru (Chaupe, northeast of Huancabamba).

**\**Calospiza cyanicollis cyanicollis* (Lafresnaye and d'Orbigny).  
BLUE-NECKED TANAGER.**

*Aglaia cyanicollis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., **7**, cl. 2, p. 33, 1837—Yuracares, Bolivia (type in Paris Museum examined).

*Tanagra cyanicollis* d'Orbigny, Voy. Amér. Mérid., Ois., p. 271, pl. 25, fig. 1, 1839—Yuracares.

*Callospiza cyanicollis* Tschudi, Arch. Naturg., **10**, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 202, 1846—eastern Peru.

*Calliste cyanicollis*<sup>2</sup> Sclater, Contrib. Orn., 1851, p. 115—part, Bolivia and Peru; Sclater, Proc. Zool. Soc. Lond., **24**, pp. 19, 262, 1856—part, eastern Peru and Bolivia (Yuracares); idem, Monog. Gen. Calliste, p. 87, 1857—part, Bolivia and eastern Peru (Tschudi); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 597—Cosnipata, Peru; Taczanowski, l.c., 1874, p. 515—Monterico and Paltaypampa, Peru; Sclater and Salvin, l.c., 1879, p. 599—Bolivia (Yuracares, Tilotilo, Ramosani); Taczanowski, Orn. Pér., **2**, p. 472, 1884—part, Monterico, Paltaypampa, Cosnipata, and San Gaban, Peru; Sclater, Cat. Bds. Brit. Mus., **11**, p. 127, 1886—part, spec. a-e, Bolivia (Tilotilo, Ramosani) and Peru (Cosnipata); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—La Merced, Borgoña, Garita del Sol, and Esperanza, Dept. Junín, Peru.

*Calospiza cyanicollis*<sup>2</sup> Ihering and Ihering, Cat. Faun. Braz., **1**, p. 355, 1907—part, Bolivia (San Mateo); Berlepsch and Stolzmann, Orn. **13**, pp. 79, 110, 1906—Idma (Urubamba) and Huaynapata, Dept. Cuzco, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1033, 1912—part, central and southeastern Peru and Bolivia.

*Tangara cyanicollis cyanicollis* Hellmayr, Arch. Naturg., **85**, A, Heft 10, p. 22, 1920—Yahuarumayo, Chaquimayo, and Marcapata, Peru (crit.); idem, Nov. Zool., **30**, p. 239, 1923—Bolivia (note on type); Zimmer, Field Mus. Nat. Hist., Zool. Ser., **17**, p. 441, 1930—Huánuco (Vista Alegre, Chinchao, Buena Vista) and Junín (Rio Colorado, Chanchamayo), Peru (crit.).

*Tangara cyanicollis gularis* Chapman, Bull. Amer. Mus. N. H., **41**, p. 332, Sept., 1919—Candamo, southeastern Peru (type in the American Museum

<sup>1</sup> *Calospiza labradorides chaupensis* (Chapman): Similar to *C. l. labradorides*, but general coloration greener; abdomen much paler, the whitish area extending to the breast and occupying most of the abdominal region; forehead with little or no golden sheen; the primaries margined externally with golden green instead of with blue (Chapman, l.c.).

We are not acquainted with this form.

<sup>2</sup> Frequently spelled "*cyaneicollis*."



of Natural History, New York); idem, Bull. U. S. Nat. Mus., 117, p. 118, 1921—Rio San Miguel, Urubamba, Peru.

*Range.*—Tropical and Subtropical zones of eastern Bolivia and southern Peru (as far north as Dept. Huánuco).<sup>1</sup>

10: Peru (Chinchao, 2; Hacienda Buena Vista, Rio Chinchao, 2; Vista Alegre, 4; Chanchamayo, 1; Rio Colorado, Chanchamayo, 1).

\**Calospiza cyanicollis caeruleocephala* (Swainson).<sup>2</sup> NORTHERN BLUE-NECKED TANAGER.

*Aglaia caeruleocephala* Swainson, Anim. Menag., p. 356, Dec. 31, 1837—"Peru," doubtless northern part of the country (type in coll. of W. Hooker, now in Liverpool Museum).<sup>3</sup>

*Calliste cyan(e)icollis* Sclater, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quixos, Ecuador; Cassin, in Gilliss, U. S. Nav. Astron. Exp., 2, p. 181, pl. 18, fig. 1, 1855—Peru; Sclater, Proc. Zool. Soc. Lond., 24, pp. 19, 262, 1856—part, Quixos, Ecuador; idem, Monog. Gen. Calliste, p. 87, 1857—part, Quixos, Ecuador; idem, Proc. Zool. Soc. Lond., 26, p. 452, 1858—Gualaquiza and Zamora, Ecuador; Taczanowski, l.c., 1882, p. 12—Huambo and Chirimoto, Peru (eggs descr.); idem, Orn. Pér., 2, p. 472, 1884—part, Huambo, Chirimoto, and Huayabamba; Sclater, Cat. Bds. Brit. Mus., 11, p. 127, 1886—part, subsp. *caeruleocephala*, eastern Peru and Ecuador

<sup>1</sup> As we have shown elsewhere (Arch. Naturg., 85, A, Heft 10, p. 22, 1920), birds from southeastern Peru (*gularis*) cannot be separated from a Bolivian series, the supposed characters being individual rather than geographic. Specimens from Junín (Chanchamayo) and Huánuco form the transition to *caeruleocephala*, but as a whole appear to be better referred to the typical race in view of the preponderance of pale-headed individuals in these parts of Peru.

*Additional material examined.*—Bolivia: San Mateo, Cochabamba, 6; Songo, Yungas of La Paz, 5; Yuracares, 1 (the type).—Peru: Yahuarmino, Carabaya, 2; Chaquimayo, Carabaya, 3; Marcapata Valley, Cuzco, 4; Santo Domingo, Carabaya, 2; Chanchamayo, Junín, 5; Garita del Sol, Vitoc, Junín, 1; Pozúzo, Huánuco, 1.

<sup>2</sup> *Calospiza cyanicollis caeruleocephala* (Swainson): Closely similar to *C. c. cyanicollis*, but blue of the head darker, the forehead tinged with purplish blue, and middle of the throat purplish blue, this area being more or less contrasted with the pale blue lateral portion and jugular region.

Birds from Moyobamba and the Valley of Huayabamba are perfectly identical with those from eastern Ecuador. Specimens from the eastern base of the east Colombian Andes seem to be also alike. Three adults from the upper Huallaga (Piña, Nuevo Loreto), by paler head and throat, approach typical *cyanicollis*.

*Additional material examined.*—Colombia: "Bogotá," 3; Buena Vista, 2.—Ecuador: Machay, 1; Sarayacu, 1; San José, Rio Suno, 4.—Peru: Valley of Huayabamba, 5; Nuevo Loreto, 2; Piña, 1.

<sup>3</sup> The type (Liverpool Museum, No. D. 5201), labeled "Peru. Mathews. Dr. W. Hooker, February, 1843," was kindly reexamined, on my request, by Mr. N. B. Kinnear. This obliging gentleman writes that the specimen is in very poor condition, many of the throat feathers being missing and others in molt. It looks more like the typical Bolivian form (*cyanicollis*), showing hardly any trace of the "rich violet gloss on the front and chin" mentioned in the original description. However, this may be due to fading, and in view of Swainson's explicit statement it seems undesirable to alter the name of the purplish-throated form.

(Chiquinda, Sarayacu, Rio Napo, Jima); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—"near Quito," errore; Goodfellow, Ibis, 1901, p. 463—Baeza, Ecuador.

*Calliste caeruleocephala* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 79—Machay and Mapoto, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 16, 1899—Zamora, Ecuador.

*Calospiza caeruleocephala* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1033, 1912—part, Colombia ("Bogotá"), eastern Ecuador, and northern Peru.

*Calospiza cyan(e)icollis caeruleocephala* Ménégau, Rev. Franç. d'Orn., 2, No. 21, p. 9, 1911—Nuevo Loreto, east of Tayabamba, Rio Huallaga, Peru; idem, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 96, 1911—Rio Napo; Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, Ecuador.

*Tangara cyaneicollis caeruleocephala* Chapman, Bull. Amer. Mus. N. H., 36, p. 598, 1917—part, Quetame and Buena Vista, Colombia; Bangs and Noble, Auk, 35, p. 460, 1918—Perico and Tabaconas, upper Marañón, Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 661, 1926—eastern Ecuador (Sabanilla, Zamora, Macas, Rio Suno below San José, Baeza, and below Oyacachi).

*Range*.—Chiefly Subtropical zone of eastern Colombia (east slope of eastern Andes), eastern Ecuador, and northern Peru (south to the latitude of Tayabamba).

1: Peru (Moyobamba, 1).

### *Calospiza cyanicollis melanogaster* (Cherrie and Reichenberger).<sup>1</sup>

#### BLACK-BELLIED TANAGER.

*Tangara cyaneicollis melanogaster* Cherrie and Reichenberger, Amer. Mus. Nov., 58, p. 1, Feb., 1923—Utiarity, near Salto Bello, Papagaio River, Matto Grosso, Brazil (type in the American Museum of Natural History, New York, examined); Naumburg, Bull. Amer. Mus. N. H., 60, p. 372, 1930—Utiarity, Tapirapoan, and Doze Octubre, Matto Grosso.

*Calliste cyanicollis* (not *Aglaiya cyanicollis* Lafresnaye and d'Orbigny) Pelzeln, Orn. Bras., 3, p. 208, 1870—Engenho do Gama, Matto Grosso (spec. examined).

<sup>1</sup> *Calospiza cyanicollis melanogaster* (Cherrie and Reichenberger): Nearest to, and agreeing with, *C. c. caeruleocephala* in bright blue, on forehead and nape-border, purplish-tinged head, deep bronze to golden humeral area, and purplish blue median gular stripe, but distinguished by the absence (or mere suggestion) of the blue abdominal zone and by having the rump strongly suffused with light blue instead of uniform silvery green. Wing, 65–70, (female) 65–68; tail, 44–48.

From *C. c. hannahiae*, which it resembles in the purplish blue median throat and lack of blue on the belly, this well-marked race may be separated by considerably darker blue crown with purplish blue forehead, pale blue suffusion of the rump, and much more golden or coppery humeral patch.

*Material examined*.—Matto Grosso: Engenho do Gama, 5; Utiarity, 4; Tapirapoan, 1; Doze Octubre, 1.

*Calospiza cyaneicollis* Ihering and Ihering, Cat. Faun. Braz., 1, p. 355, 1907—part, Matto Grosso; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1033, 1912—part, Matto Grosso.

Range.—Tropical zone of western (Amazonian) Matto Grosso in central Brazil.

**\**Calospiza cyanicollis granadensis* (Berlepsch).<sup>1</sup> COLOMBIAN BLUE-NECKED TANAGER.**

*Calliste caeruleocephala* subsp. *granadensis* Berlepsch, Journ. Orn., 32, p. 290, 1884—Bucaramanga and “Bogotá,” Colombia (type, from “Bogotá,” in the Berlepsch Collection, now in Frankfort Museum, examined).

*Calliste coeruleocephala granadensis* Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—“Bogotá.”

*Calliste cyan(e)icollis* (not *Aglaiā cyanicollis* Lafresnaye and d'Orbigny) Sclater, Contrib. Orn., 1851, p. 115—part, Colombia; idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—“Bogotá”; idem, l.c., 24, p. 262, 1856—part, “Bogotá”; idem, Monog. Gen. Calliste, p. 87, 1857—part, “Bogotá”; idem, Cat. Coll. Amer. Bds., p. 70, 1862—part, spec. b-e, “Bogotá”; Wyatt, Ibis, 1871, p. 325—on the mountain chain between Bucaramanga and the Magdalena; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Concordia and Frontino, Antioquia; Sclater, Cat. Bds. Brit. Mus., 11, p. 127, 1886—part, subsp. *granadensis*, Colombia (“Bogotá,” Medellín, and Concordia).

*Calospiza cyaneicollis granadensis* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 307, 1899—Ibagüe, Colombia.

*Calospiza caeruleocephala granadensis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1033, 1132, 1912—Colombia (“Bogotá,” Bucaramanga, Antioquia).

*Tangara cyaneicollis granadensis* Chapman, Bull. Amer. Mus. N. H., 36, p. 599, 1917—Colombia (Las Lomitas, San Antonio, Cocal, Miraflores, La Frijolera, El Consuelo, Fusugasugá, Aguadita, Tenasuca).

*Tangara cyaneicollis caeruleocephala* (not *Aglaiā caeruleocephala* Swainson) Chapman, Bull. Amer. Mus. N. H., 36, p. 598, 1917—part, west of Honda, La Palma, La Candela, near San Agustín, Andalucía.

<sup>1</sup>*Calospiza cyanicollis granadensis* (Berlepsch): Closely similar to *C. c. caeruleocephala*, but humeral area and rump more silvery greenish, less golden, and the blue abdominal zone generally more extensive.

After examining a goodly number of Colombian specimens I cannot bring myself to split the inhabitants of that country into two forms, as has been proposed by Chapman. Of six skins from the head of the Magdalena Valley not one has the rump or humeral area so reddish golden as even the palest Peruvian bird (*caeruleocephala*), and I do not see how they can be separated from the general run of “Bogotá” skins (including the type of *granadensis*). While admitting that Magdalena Valley birds are more brassy than those from the western Andes and the west slope of the central Andes, they seem to fit in much better with the inhabitants of the rest of Colombia than with the form found on the east slope of the Colombian and Ecuadorian Andes.

*Additional material examined.*—Colombia: “Bogotá,” 21; Bucaramanga, 2; near San Agustín, 4; La Candela, Huila, 1; Andalucía, Huila, 1; Concordia, 1; Rio Lima, Cauca, 3; San Antonio, 2; Miraflores, 3.



*Range*.—Subtropical zone of Colombia (excepting Santa Marta region and east slope of eastern Andes).

11: Colombia ("Bogotá," 2; east of Palmira, Cauca, 1; Rio Lima, 4; Rio Zapata, 1; San Antonio, Cauca, 1; La Palma, Huila, 1; near San Agustín, Huila, 1).

\**Calospiza cyanicollis hannahiae* (Cassin).<sup>1</sup> HANNAHIA'S TANAGER.

*Calliste hannahiae* Cassin, Proc. Acad. Nat. Sci. Phila., 1864, p. 287, pl. 1, fig. 2—Mérida Mountains, Venezuela (type in coll. of the Academy of Natural Sciences, Philadelphia); Berlepsch, Journ. Orn., 32, p. 290, 1884—Mérida (crit.).

*Calliste cyanicollis* (not *Aglaiia cyanicollis* Lafresnaye and d'Orbigny) Sclater, Monog. Gen. Calliste, pl. 38, 1857 (fig. of "Bogotá specimen" in coll. of P. L. Sclater; cf. Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 253); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 252—Maruria, mountains south of Lake Valencia, Venezuela; idem, l.c., 1870, p. 780—south of Mérida; idem, l.c., 1875, p. 237—San Cristóbal, Táchira; Sclater, Cat. Bds. Brit. Mus., 11, p. 127, 1886—part, subsp. *hannahiae*, "Bogotá" and Venezuela (San Cristóbal, "Valencia"); Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 35—"Maracaibo"=Mérida Mountains (note on Cassin's type).

*Callispiza hannahiae* Salvadori, Atti. Accad. Sci. Torino, 4, p. 176 (in text), 1868—Mérida (crit.).

*Calospiza hannahiae* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1033, 1132, 1912—Andes of Venezuela and (?) Colombia ("Bogotá").

*C[allispiza] nigriventris* (Parzudaki MS.) Salvadori, Atti. Accad. Sci. Torino, 4, p. 176 (in text), 1868—new name for *C. hannahiae* Cassin.

*Range*.—Subtropical zone of northwestern Venezuela from the mountain range south of Lake Valencia (Maruria) to Táchira.

5: Venezuela (Colón, Táchira, 4; La Azulita, Mérida, 1).

\**Calospiza cyanicollis cyanopygia* (Berlepsch and Taczanowski).<sup>2</sup> BLUE-RUMPED TANAGER.

<sup>1</sup> *Calospiza cyanicollis hannahiae* (Cassin): Agreeing with *C. c. granadensis* in coloration of humeral patch, wing edgings, and purplish blue median throat stripe, but distinguished by lacking every trace of the purplish blue abdominal area, the breast and belly being uniform black. Wing, 67-69; tail, 46-50.

This well-differentiated race is evidently confined to the mountain ranges of western Venezuela. Its occurrence in Colombia is altogether unlikely. The alleged "Bogotá" specimen in the British Museum, formerly in the collection of P. L. Sclater and figured on pl. 38 of the "Monograph of the Genus Calliste," does not look like the trade-skins exported from the Colombian capital, or else, if it really did come from there, may be an individual mutant of *C. c. granadensis*.

*Additional specimens examined*.—Venezuela: San Cristóbal, Táchira, 3; La Ortiza, Táchira, 2.

<sup>2</sup> *Calospiza cyanicollis cyanopygia* (Berlepsch and Taczanowski) is readily distinguished from all the other races by having the rump pale blue like the pileum and throat, the color of these parts being that of the head in *C. c. cyanicollis*. Besides, the lesser and greater upper wing coverts are greenish blue, only the median



*Calliste cyanopygia* (Slater MS.) Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 545—Chimbo, Ecuador (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 182, 1927); Slater, l.c., 1883, p. 653—Esmeraldas; idem, Cat. Bds. Brit. Mus., 11, p. 128, 1886—Esmeraldas; Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nanegal; Hartert, Nov. Zool., 5, p. 481, 1898—Chimbo; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 16, 1899—Gualea and Rio Peripa; Goodfellow, Ibis, 1901, p. 464—Canzacota, Gualea, and west side of Pichincha.

*Calliste cyaneicollis* (not *Aglaiia cyanicollis* Lafresnaye and d'Orbigny) Slater, Proc. Zool. Soc. Lond., 28, p. 292, 1860—Esmeraldas.

*Calospiza cyanopygia* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1033, 1912—western Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 96, 1911—Santo Domingo and Gualea; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Gualea.

*Tangara cyaneicollis cyanopygia* Chapman, Bull. Amer. Mus. N. H., 55, p. 662, 1926—Esmeraldas, coast of Manaví, Chimbo, and Santa Rosa.

*Range*.—Tropical and Subtropical zones of western Ecuador.  
1: Ecuador (Pichincha, 1).

**\**Calospiza nigro-cincta nigro-cincta* (Bonaparte). BLACK-BANDED TANAGER.**

*Aglaiia nigro-cincta* Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 121, pub. June, 1838—"that portion of Brazil bordering on Peru" (type probably lost).<sup>1</sup>

*Calliste thalassina* Strickland, Ann. Mag. Nat. Hist., 13, p. 419, 1844—"believed to be brought from Mexico" (type in Strickland Collection, now in University Museum, Cambridge, Engl.; cf. Salvin, Cat. Strickland Coll., p. 186, 1882); Slater, Contrib. Orn., 1851, p. 57 (monog.); idem, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quixos, Ecuador; idem, l.c., 23, p. 158, 1855—"Bogotá," Colombia.

*Aglaiia wilsonii* Lafresnaye, Rev. Zool., 10, p. 71, 1847—"in Peruvia, Guanaco" (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899); Des Murs, Icon. Orn., livr. 10, pl. 56, fig. 2, 1847—"Guaunco, Peru" (fig. of type).

*Calliste larvata* (not of Du Bus) Cassin, in Gilliss, U. S. Astron. Exp., 2, p. 182, p. 18, fig. 2, 1855.

series being golden or brassy yellow; the blue of the abdomen is lighter, passing into greenish blue posteriorly and on under tail coverts, etc.

*Additional material examined*.—Western Ecuador (Gualea, Santo Domingo, Canzacota, Pichincha, etc.), 12.

<sup>1</sup> The lot received by Leadbeater containing the type of this and other species of Bonaparte's was purchased by the Earl of Derby, whose collection subsequently passed into the Liverpool Museum. Slater (Monog. Gen. Calliste, p. 86, 1857), however, did not succeed in finding the type of *A. nigro-cincta* in the Derby Collection. The original description, misleading in more than one respect, is hardly sufficient to recognize the species, but it was identified by Bonaparte himself, as we are told by Slater (l.c.).

*Calliste nigricincta* Sclater, Proc. Zool. Soc. Lond., 24, p. 261, 1856—Upper Amazonia ("Bogotá"; Quixos, Ecuador; "Guaunco" and River Ucayali, Peru; Marabitanas, Rio Negro); idem, Monog. Gen. Calliste, p. 85, pl. 37, 1857 (monog.); idem, Cat. Coll. Amer. Bds., p. 70, 1861—"Bogotá"; Pelzeln, Orn. Bras., 3, p. 208, 1870—Marabitanas, Rio Negro, Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata, Peru; idem, l.c., 1879, p. 599—Mapiri, Bolivia; Taczanowski, l.c., 1882, p. 12—Huambo, Peru; idem, Orn. Pér., 2, p. 471, 1884—Huambo; Salvin, Ibis, 1885, p. 210—Roraima, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 126, 1886—Bolivia (Mapiri), Peru (Ucayali), Ecuador (Sarayacu), Colombia ("Bogotá"), and British Guiana (Roraima); Allen, Bull. Amer. Mus. N. H., 2, p. 81, 1889—Mapiri, Bolivia; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—La Merced and Borgoña, Chanchamayo, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 16, 1899—Gualaquiza, Ecuador; Goodfellow, Ibis, 1901, p. 463—Rio Tiputini (Napo), Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 20, 1902—Suapuré and Nicare, Caura, Venezuela.

*Calospiza nigricincta* Ihering, Cat. Faun. Braz., 1, p. 355, 1907 (range); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1034, 1132, 1912—Amazonia (range); Sneath, Bol. Mus. Goeldi, 8, p. 445, 1914 (range); Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, Ecuador.

*Calospiza nigrocincta* Hellmayr, Nov. Zool., 14, p. 348, 1907—Humaytá, Rio Madeira; idem, l.c., 17, p. 274, 1910—Humaytá.

*Tangara nigrocincta* Cherie, Sci. Bull., Mus. Brookl. Inst., 2, p. 174, 1916—Suapuré and Nicare, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 2, p. 512, 1921—Bonasika River and Roraima; Chapman, Bull. Amer. Mus. N. H., 55, p. 661, 1926—Rio Suno, Ecuador.

*Range*.—Tropical zone of Amazonia from the eastern base of the eastern Andes of Colombia, southern Venezuela (Caura Valley), and British Guiana (Bonasika River and Roraima) south through eastern Ecuador and Peru and western Brazil (Marabitanas, Rio Negro; Humaytá, Rio Madeira) to northern Bolivia (Mapiri).<sup>1</sup>

2: Peru (Moyobamba, 2).

\**Calospiza nigro-cincta*<sup>2</sup> *fanny* (Lafresnaye).<sup>3</sup> FANNY'S TANAGER.

<sup>1</sup> There is apparently no local variation in this species, birds from such widely separated localities as Roraima, the Caura Valley, and "Bogotá" agreeing with others from northern Peru. No material is available from southern Peru or Bolivia.

*Additional material examined*.—Colombia: "Bogotá," 6.—Ecuador: Rio Napo, 1; Gualaquiza, 1; Sarayacu, 2.—Venezuela: Caura Valley, 3.—British Guiana: Roraima, 3.—Peru: Iquitos, 1; Huayabamba, 1.—Brazil: Marabitanas, Rio Negro, 2; Humaytá, Rio Madeira, 1.

<sup>2</sup> The members of the *C. larvata* group are clearly conspecific with *C. nigrocincta*, replacing it west of the Andes.

<sup>3</sup> *Calospiza nigro-cincta fanny* (Lafresnaye): Nearest to *C. n. franciscae*, but greater upper wing coverts and remiges either uniform black or with mere traces of greenish fringes on their apical halves; rump and flanks much paler and more greenish blue; blue postfrontal area more extensive; bill smaller.

Birds from northwestern Ecuador and western Colombia agree perfectly together. Des Murs's figure of the type unquestionably represents the form with

*Aglais Fanny* Lafresnaye, Rev. Zool., **10**, p. 72, 1847—"in Nova Grenada (Delattre)"=Buenaventura, Chocó, Colombia (type in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., **51**, p. 51, 1899); Des Murs, Icon. Orn., livr. 10, pl. 56, fig. 1, 1847 (fig. of type).

*Calliste francescae* (not *Calliste franciscæ* Sclater, 1856) Sclater, Monog. Gen. Calliste, p. 83, 1857—part, New Grenada; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 142—Turbo, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., **7**, pp. 298, 332, 1861—Lion Hill, Panama (descr. of young); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Panama Railroad.

*Calliste franciscæ* Sclater, Cat. Coll. Amer. Bds., p. 359, 1862—Panama.

*Calliste larvata* (not of Du Bus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Remedios, Antioquia, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, **1**, p. 274, 1883—part, Panama (railroad line) and Colombia.

*Calliste larvata* b. subsp. *francescae* Sclater, Cat. Bds. Brit. Mus., **11**, p. 125, 1886—part, spec. l-q, Panama (Paraiso Station) and Colombia (Remedios, Antioquia).

*Calliste larvata francescae* Hartert, Nov. Zool., **5**, p. 482, 1898—Cachabí, Ecuador.

*Calospiza larvata fanny* Bangs, Proc. New Engl. Zool. Cl., **2**, p. 30, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., **50**, Part 2, p. 49, 1902—part, eastern Panama (railroad line) and Colombia; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1107—Noanamá and Nóvita, Colombia (crit.); Stone, Proc. Acad. Nat. Sci. Phila., **70**, p. 277, 1918—Mindi and Gatún, Panama.

*Calospiza larvata fannyae* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1034, 1912—western Colombia and northwestern Ecuador (crit.).

*Tangara larvata fanny* Chapman, Bull. Amer. Mus. N. H., **36**, p. 598, 1917—Buenavista (Nariño), Barbacoas, Los Cisneros, San José, Noanamá, Nóvita, Bagado, Puerto Valdivia (Rio Cauca), and Honda (Magdalena River), Colombia; idem, l.c., **55**, p. 661, 1926—Esmeraldas and Manaví, Ecuador; Griscom, Bull. Mus. Comp. Zool., **69**, p. 188, 1929—Cana, eastern Panama; idem, l.c., **72**, p. 370, 1932—Permé and Obaldia, eastern Panama.

*Range*.—Tropical zone of northwestern Ecuador (south to Manaví), western Colombia (east into Antioquia and the Magdalena Valley), and eastern Panama (Canal Zone).

4: Panama (Colón, 4).

plain black larger upper wing coverts, thus showing that Delattre's specimen must have originated in western Colombia and not in "Veragua," as has once been suggested by Sclater. Two adults from the Panama Railroad seem to be decidedly referable to *C. n. fanny*.

*Material examined*.—Panama: Lion Hill, 1; Paraiso Station, 1.—Colombia: Noanamá, 6; Nóvita, 1; Remedios, 1.—Ecuador: San Javier, 8; Pambilár, 1; Lita (alt. 3,000 feet), 1.



\**Calospiza nigro-cincta franciscae* (Sclater).<sup>1</sup> FRANCISCA'S Tanager.

*Calliste franciscae* Sclater, Proc. Zool. Soc. Lond., 24, p. 142, 1856—Rio David, Chiriquí, Panama; idem, l.c., p. 261, 1856—Rio David, Chiriquí (spec. stated to be in coll. of J. Gould, its present location unknown);<sup>2</sup> Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (Angostura, Turrialba, San José); Frantzius, Journ. Orn., 17, p. 298, 1869—Costa Rica.

*Calliste francescae* Sclater, Monog. Gen. Calliste, p. 83, 1857—part, David, Chiriquí; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, pp. 176, 180, 1865—David, Chiriquí, and Greytown, Nicaragua; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Santa Fé and Cordillera del Tolé, Veraguas, and David, Chiriquí; idem, l.c., 1870, p. 187—Veraguas (Calóvévora, Chitrá, Laguna de Castillo, Mina de Chorchá) and Chiriquí (Bugaba).

*Callispiza franciscae* Salvadori, Atti. Accad. Sci. Torino, 4, p. 175, 1868—northeastern Costa Rica (crit.).

*Calliste larvata* b. subsp. *francescae* Sclater, Cat. Bds. Brit. Mus., 11, p. 125, 1886—part, spec. a-k, Nicaragua (Chontales), Costa Rica (Turrialba, Angostura), Veraguas (Cordillera del Tolé, Calóvévora, Mina de Chorchá, Santa Fé, Castillo).

*Calliste larvata* (not of Du Bus) Salvin, Ibis, 1872, p. 316—Chontales, Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1878, p. 54—Costa Rica (Naránjo, Orósi, San Carlos); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 274, 1883—part, Nicaragua to western Panama (Veraguas and Chiriquí); Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1887—Segovia River, Honduras; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (Naránjo de Cartago, Cartago, Jiménez, Puntarenas, Pózo Azul de Pirrís); Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 137, 1893—Costa Rica (Boruca, Térraba, Buenos Aires); Richmond, Proc. U. S. Nat. Mus., 16, p. 488, 1893—Rio Escondido, Nicaragua.

<sup>1</sup> *Calospiza nigro-cincta franciscae* (Sclater): Differs from *C. n. fanny* in having the greater upper wing coverts and remiges very distinctly margined with pale green; the flanks more extensively as well as a darker blue, with a strong purplish tinge anteriorly; the blue postfrontal patch more restricted; finally by larger, stouter bill. In all of these points it resembles *C. n. larvata*, from which it is, however, distinguished by coppery golden instead of deep coppery reddish throat, paler blue cheeks with very little, if any, purplish tinge, and somewhat paler crown and rump. Birds from the Térraba Valley are precisely similar to a series from Chiriquí and two skins from Veraguas (Calóvévora). While the small number of specimens examined from Caribbean Costa Rica and Nicaragua seem to be more or less intermediate to *C. n. larvata*, I am inclined to follow Peters in referring them to *franciscae* rather than Carriker, who places them with *C. n. larvata*.

While doubtless intended as a mere emendation of *A. fanny* Lafr., the name *C. franciscae* of Sclater, accompanied as it is by a characterization of the Chiriquí bird in comparison to *C. larvata*, will have to be adopted in place of *C. n. centralis*, as has been pointed out by Peters (Bull. Mus. Comp. Zool., 71, p. 340, 1931).

*Additional material examined.*—Costa Rica: Carrillo, 1; Rio Reventazón, 4; San Carlos, 1; Turrialba, 1; Boruca, 8.—Panama: Chiriquí, 12; Calóvévora, Veraguas, 2.

<sup>2</sup> Bridges secured a single example. It did not come to the British Museum, but may yet be found in the Academy of Natural Sciences, Philadelphia, where part of the Gould Collection was deposited.



- Calospiza larvata larvata* Rendahl, Ark. Zool., 12, No. 8, p. 32, 1919—Costa Rica (Talamanca, Sipurio) and Nicaragua (San Juan del Norte) (crit.).
- Calospiza larvata fanny* (not *Aglaiia fanny* Lafresnaye) Bangs, Auk, 18, p. 369, 1901—Divalá, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 49, 1902—part, Honduras to western Panama (Veraguas and Chiriquí); Bangs, Auk, 24, p. 308, 1907—Boruca and Paso Real de Térraba, Costa Rica; Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 278, 1910—Guayábo and Port Limón, Costa Rica.
- Tangara larvata fanny* Carriker, Ann. Carnegie Mus., 6, p. 859, 1910—Pacific lowlands of Costa Rica (Pígres, Pózo Azul de Pirris, Buenos Aires, El General de Térraba, and Boruca; habits).
- Tangara larvata larvata* Carriker, Ann. Carnegie Mus., 6, p. 858, 1910—Caribbean Costa Rica (Guayábo, Bonilla, Carrillo, Jiménez, Cachí, Sara-piquí, Guácimo, Guápiles, El Hogar; crit., habits).
- Calospiza larvata centralis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1034, 1132, 1912—Calovévora, Veraguas (type in coll. of H. von Berlepsch, now in Frankfort Museum).
- Tangara larvata centralis* Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 462, 1928—Almirante, Panama (crit.).
- Tangara larvata franciscæ* Peters, Bull. Mus. Comp. Zool., 71, p. 340, 1931—Panama, Almirante Bay region (Changuinola, Almirante, Zegla, Crimacola); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 244, 1932—Eden and Bluefields, Nicaragua.

*Range*.—Tropical zone of Central America, from southern Honduras (Segovia River) through Nicaragua and Costa Rica to western Panama (east to the Veraguas).

16: Nicaragua (Matagalpa, 2); Costa Rica (Boruca, 1; El Pózo, Térraba, 1; Guayábo, 2; Port Limón, 6; Peralta, 2; Santa Cruz de Turrialba, 1); Panama (Veragua, 1).

\**Calospiza nigro-cincta larvata* (Du Bus). MASKED TANAGER.

- Calliste larvata* Du Bus, Esq. Orn., livr. 2, pl. 9, 1846—Tabasco, Mexico (type in Brussels Museum); Sclater, Contrib. Orn., 1851, p. 64 (crit.); idem, Proc. Zool. Soc. Lond., 24, p. 260, 1856—Mexico (Tabasco) and Honduras (Chamelicon River); idem, Monog. Gen. Calliste, p. 81, pl. 36, 1857—same localities (monog.); Sclater and Salvin, Ibis, 1859, p. 16—Chamelicon River, Honduras; Salvin, Ibis, 1859, p. 467—Izabal, Guatemala; Sclater and Salvin, Ibis, 1860, p. 33—Izabal (habits); Sclater, Cat. Coll. Amer. Bds., p. 70, 1862—Choctum, Vera Paz; idem and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—Honduras [San Pedro]; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 42, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 274, 1883—part, Tabasco to Honduras; Sclater, Cat. Bds. Brit. Mus., 11, p. 124, 1886—Mexico, British Honduras (Belize), Guatemala (Choctum, Rio de la Pasion, Vera Paz, Izabal, Chisec), and Honduras (San Pedro).
- Calospiza larvata* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1034, 1912—southern Mexico to Honduras.

*Calospiza larvata larvata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 47, 1902—southern Mexico to Honduras (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 155, 1903—Ceiba and Yaruca, Honduras.

*Tangara larvata larvata* Austin, Bull. Mus. Comp. Zool., 69, p. 391, 1929—Mountain Cow, Cayo District, British Honduras; Peters, l.c., p. 471, 1929—Lancetilla and Tela, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 375, 1932—Guatemala (Finca Chamá, Chimoxan, Secanquim).

*Range*.—Tropical zone of southeastern Mexico (in states of Tabasco and Chiapas), eastern Guatemala, British Honduras, and Honduras.<sup>1</sup>

1: Guatemala (unspecified, 1).

\**Calospiza ruficervix ruficervix* (Prévost and Des Murs). BUFF-NAPED TANAGER.

*Tanagra ruficervix* Prévost and Des Murs, Voy. Vénus, Atlas, Ois., pl. 5, fig. 1, 1846.

*Tanagra* (*Calliste*) *ruficervix* Prévost and Des Murs, Voy. Vénus, Zool., 5, (1), p. 212, 1849—"Guatemala," errore (the type examined in the Paris Museum is from Colombia).

"*Procnopis atrocoerulea* [not of Tschudi] et *Tanagra ruficervix*" Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 77, 1851—Ecuador (descr. of spec. collected by Bourcier in the Paris Museum).

*Calliste leucotis* Selater, Contrib. Orn., 1851, Part 2, p. 58, end of April, 1851—based on *Procnopis atrocoerulea* Bonaparte ex Ecuador (type in Paris Museum).

*Chalcothraupis ruficervix* Bonaparte, Rev. Mag. Zool., (2), 3, p. 144, 1851—Colombia (descr.).

*Calliste ruficervix* Selater, Contrib. Orn., 1851, p. 58—Colombia; idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 259, 1856—Colombia ("Bogotá") and Ecuador (vicinity of Quito); idem, Monog. Gen. Calliste, p. 71, pl. 32, 1857—same localities (monog.); idem, Proc. Zool. Soc. Lond., 27, p. 139, 1859—Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 69, 1862—Pallatanga and "Bogotá"; Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Concordia, Colombia; Berlepsch and Taczanowski, l.c., 1884, p. 288—Cayandede, Ecuador; Selater, Cat. Bds. Brit. Mus., 11, p. 129, 1886—Colombia ("Bogotá," Antioquia), Ecuador (Pallatanga), and "North Peru" (errore); Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá"; Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Gualea and Batonago, Ecuador; Goodfellow, Ibis, 1901, p. 462—San Nicolas and Intag, Ecuador.

*Calospiza ruficervix* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 96, 1911—San Nicolas and Santo Domingo, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1035, 1912—Colombia ("Bogotá," Antioquia, San Pablo) and western Ecuador (Pallatanga, "Quito," Cayandede, San Nicolas, Intag).

<sup>1</sup> Two specimens from Santa Ana, Honduras, agree with nine from Guatemala. No Mexican material examined.

*Calospiza ruficervix ruficervix* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1108  
—Pueblo Rico and Rio Lima, western Andes of Colombia.

*Tangara ruficervix ruficervix* Chapman, Bull. Amer. Mus. N. H., 36, p. 599,  
1917—Colombia (San Antonio, Cerro Munchique, Gallera, Ricaurte,  
western Andes; Miraflores, Salento, La Candela, near San Agustin, central  
Andes; Fusugasugá, Aguadita, El Roble, eastern Andes); idem, l.c., 55,  
p. 662, 1926—western Ecuador (Gualea, Cayandede, El Chiral, Zaruma).

*Range.*—Subtropical zone of Colombia (excepting the Santa Marta region) and western Ecuador.<sup>1</sup>

3: Colombia (Rio Zapata, Cauca, 1; San Antonio, Cauca, 1; "Bogota," 1).

***Calospiza ruficervix taylori* (Taczanowski and Berlepsch).<sup>2</sup>**  
TAYLOR'S TANAGER.

*Calliste taylori* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885,  
p. 78—Machay, eastern Ecuador (type in Warsaw Museum; cf. Sztolcman  
and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 183, 1927);  
Selater, Cat. Bds. Brit. Mus., 11, p. 130, 1886—eastern Ecuador (Machay,  
Rio Napo).

*Calospiza taylori* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1035,  
1912—eastern Ecuador (Machay, Rio Napo).

*Tangara ruficervix taylori* Chapman, Bull. Amer. Mus. N. H., 55, p. 662,  
1926—eastern Ecuador (below Oyacachi) and northern Peru (Chaupe).

*Calospiza ruficervix fulvicervix* (not *Calliste fulvicervix* Selater and Salvin)  
Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1109 (in text)—part, Nuevo  
Loreto, Peru.

<sup>1</sup> Birds from western Ecuador (*leucotis*) I am unable to distinguish satisfactorily. As has been remarked by Chapman, they have generally longer bills and the ochraceous occipital band sometimes wider, but neither of these average variations seems constant enough to warrant their separation. The presence of bluish white or golden buff feathers along the upper margin of the auriculars appears to be inconsequential, such individuals also occurring in various parts of Colombia. Selater, when proposing the name *leucotis*, had no Ecuadorian material before him, but relied on Bonaparte's rather superficial description. If the prince called the "tectrices alarum minores" white, he doubtless meant the under wing coverts.

*Additional material examined.*—Colombia: San Antonio, western Andes, 4; Pueblo Rico, San Juan slopes, 2; Rio Lima, Cauca, 2; "Bogotá," 14.—Ecuador: San Nicolas, 3; Santo Domingo, 1; Cayandede, 2; below Quito, 3.

<sup>2</sup> *Calospiza ruficervix taylori* (Taczanowski and Berlepsch): Similar in the adult male to *C. r. ruficervix*, but larger; postfrontal band ultramarine blue instead of dull purplish blue; occipital band much brighter, glossy golden yellow, and extending laterally to the upper margin of the auriculars, etc. Wing, 78; tail, 51; bill, 9.

An unsexed adult from northern Peru (Nuevo Loreto, east of Tayabamba), in general coloration resembles the adult male from Machay, from which the above characters have been taken, but is smaller (wing, 70; tail, 45) and differs in certain details, the occipital band being only half as wide and the postfrontal area as well as the tips to the nuchal feathers being cendre blue. In dimensions and narrowness of the golden yellow occipital band it corresponds to the characters of the female of *taylori*, as given by the describers. Additional material is required to determine the significance of the variation.



*Range*.—Subtropical zone of eastern Ecuador (Machay, below Oyacachi, "Rio Napo") and northern Peru (Chaupe, east of Huanca-bamba; Nuevo Loreto, east of Tayabamba).

\**Calospiza ruficervix fulvicervix* (Sclater and Salvin).<sup>1</sup> ORANGE-  
NAPED TANAGER.

*Calliste fulvicervix* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 354, pl. 30, fig. 1—Tiltilo, Yungas, Bolivia (descr. of female; type in Salvin-Godman Collection, now in British Museum); idem, l.c., 1879, p. 599—Tiltilo; Taczanowski, Orn. Pér., 2, p. 465, 1884—Paltaypampa and Ropaybamba, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 130, 1886—Bolivia; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 340—Garita del Sol, Vitoc, Peru.

*Calospiza fulvicervix* Berlepsch and Stolzmann, Orn. 13, p. 79, 1906—Idma, Urubamba, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1035, 1912—Peru (Paltaypampa, Ropaybamba, Garita del Sol, Chanchamayo, "Santa Ana" [=Idma], Marcapata, Ocobamba near Cuzco) and Bolivia (Tiltilo).

*Tangara fulvicervix* Chapman, Bull. U. S. Nat. Mus., 117, p. 118, 1921—Idma and San Miguel Bridge, Urubamba, Peru.

*Calliste ruficervix* (not *Tanagra ruficervix* Prévost and Des Murs) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Paltaypampa and Ropaybamba, Peru.

*Range*.—Subtropical zone of southern Peru (from Dept. Junín to Cuzco) and northern Bolivia (Yungas of La Paz).

1: Peru (Chanchamayo, Junín, 1).

\**Calospiza mexicana mexicana* (Linnaeus). GUIANAN TUR-  
QUOISE TANAGER.

*Tanagra mexicana* Linnaeus, Syst. Nat., 12th ed., 1, p. 315, 1766—based principally on "Le Tangara bleu de Cayenne" Brisson (Orn., 3, p. 6, pl. 1, fig. 3); Cayenne.<sup>2</sup>

<sup>1</sup> *Calospiza ruficervix fulvicervix* (Sclater and Salvin): Differs in the male sex from the two preceding races by much brighter blue (not greenish blue) general coloration both above and below; shining orange-rufous occipital band without trace of blackish borders; nearly pure white (not buffy) middle of the breast, etc. The female is much like *ruficervix* and *taylori*, but lacks the blackish borders to the occipital band, the latter being, besides, hardly suggested by a narrow stripe. Wing, 72-77, (female) 71; tail, 48-51; bill, 8½-9.

A single Bolivian male, when compared to others from Peru, is more intensely blue throughout and has the orange-rufous band on the pileum markedly wider. Specimens from Dept. Junín, whence we have no material, are stated by Berlepsch and Stolzmann to be like those from Idma.

*Material examined*.—Bolivia: Yungas of La Paz, 1.—Peru: Idma, Urubamba, 6; Ocobamba, near Cuzco, 1.

<sup>2</sup> Linnaeus also cites "The Black and Blue Tit-mouse" of Edwards (Glean. Nat. Hist., 3, p. 292, pl. 350), which is the same bird as that from Cayenne, but his diagnosis is clearly taken from Brisson, though in a condensed form. The "Touahtotl" of Hernandez, an obscure Mexican species, referred by Brisson to his "Tangara bleu de Cayenne," certainly is something different. Nevertheless, the term *mexicana*, misleading as it is, cannot be rejected under existing rules.



*Tanagra flaviventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 410, 1819—part, Cayenne (ex "Tangara tacheté, de Cayenne" Daubenton, Pl. Enl., pl. 290, fig. 2).

*Callospiza mexicana* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 670, 1849—British Guiana.

*Callospiza cayanensis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 169, 1851—new name for *Tanagra mexicana* Linnaeus and *Tanagra flaviventris* Vieillot, ex Cayenne; idem, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne.

*Calliste flaviventris* Sclater, Contrib. Orn., 1851, p. 69—Guiana; idem, Proc. Zool. Soc. Lond., 24, p. 257, 1856—Cayenne and "upper Rio Negro (Wallace)"; idem, Monog. Gen. Calliste, p. 63, pl. 29, 1857—Cayenne, Guiana, and "upper Rio Negro" (monog.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 571—"Barra do Rio Negro";<sup>1</sup> Dubois, Bull. Acad. Roy. Belgique, 38, p. 127, 1874 (crit.); Salvin, Ibis, 1885, p. 210—Bartica Grove, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 120, 1886—part (subsp. *typica*, spec. a-f; subsp. *vieilloti*, spec. a, b), Cayenne and British Guiana, "Barra do Rio Negro";<sup>1</sup> Sneath, Journ. Orn., 55, p. 293, 1907—Maracá and Monte Alegre, Brazil (spec. examined); Penard, Vog. Guyana, 2, p. 438, 1910—part, Guianas (habits).

*Calliste brasiliensis* var. *a. flaviventris* Dubois, Bull. Acad. Roy. Belg., 38, p. 129, 1874 (range).

*Calospiza mexicana* Berlepsch, Nov. Zool., 15, p. 114, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1036, 1132, 1912—Guianas and northern Brazil (Monte Alegre, Maracá); Sneath, Bol. Mus. Goeldi, 8, p. 445, 1914—Maracá and Monte Alegre.

*Calospiza mexicana mexicana* Ménégaux, Bull. Mus. Hist. Nat. Paris, 14, p. 8, 1908—French Guiana.

*Tanagra mexicana* Chubb, Bds. Brit. Guiana, 2, p. 511, 1921—British Guiana (Ituribisci River, Supenaam, Takutú, Mazaruni River, Bonasika, Abary River, Tiger Creek, Essequibo, Bartica Grove, Georgetown, etc.); Young, Ibis, 1929, p. 249—coastland of British Guiana.

*Tanagra mexicana mexicana* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 87, 1918—Surinam (vicinity of Paramaribo, Javaweg).

*Range*.—French, Dutch, and British Guiana, and northeastern Brazil, south to the north bank of the lower Amazon, west to Monte Alegre.<sup>2</sup>

6: British Guiana (Georgetown, 2; unspecified, 2); Dutch Guiana (near Paramaribo, Surinam, 1); French Guiana (Cayenne, 1).

<sup>1</sup> I cannot help thinking that there must be some mistake about this locality. Three adults from "Barra do Rio Negro" [= Manáos] in the Vienna Museum are undoubtedly *C. m. boliviana* and by no means *C. m. mexicana*.

<sup>2</sup> Two adult females from Monte Alegre agree in every detail, notably in uniform calamine blue humeral patch and pale yellowish under parts, with typical Cayenne birds.

*Additional material examined*.—French Guiana, 9; Surinam, 4; British Guiana, 6.—Brazil: Monte Alegre, 2; Maracá, 2.

**Calospiza mexicana media** (Berlepsch and Hartert).<sup>1</sup> INTERMEDIATE TURQUOISE TANAGER.

*Calliste mexicana media* Berlepsch and Hartert, Nov. Zool., 9, p. 19, 1902—Maipures, Orinoco River, and La Prición, Caura River, Venezuela (type from Maipures, in Tring Museum, now in the American Museum of Natural History, New York).

*Calospiza mexicana media* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1036, 1912—Venezuela (Maipures, Perico, Guanoco).

*Tangara mexicana media* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 173, 1916—Orinoco (Perico and upwards) and Caura (La Union, Suapuré), Venezuela.

*Calospiza mexicana vieilloti* (not *Calliste vieilloti* Sclater) Beebe, Zoologica (N.Y.), 1, p. 102, 1909—Guanoco, Orinoco Delta (spec. examined).

*Tangara mexicana vieilloti* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 174, 1916—Guanoco (ex Beebe).

*Range*.—Southern Venezuela, in the valleys of the Orinoco and its tributary, the Caura, and doubtless other rivers.

\***Calospiza mexicana vieilloti** (Sclater).<sup>2</sup> VIEILLOT'S TURQUOISE TANAGER.

*Calliste vieilloti* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 257, pub. Jan., 1857—Trinidad (type in coll. of P. L. Sclater, now in British Museum); idem, Monog. Gen. Calliste, p. 65, 1857—Trinidad (monog.); Finsch, Proc. Zool. Soc. Lond., 1870, p. 579—Trinidad (crit.); Dubois, Bull. Acad. Roy. Belg., 38, p. 127, 1874—Trinidad (crit.).

*Calliste vieillotii* Sclater, Cat. Coll. Amer. Bds., p. 69, 1862—Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Léotaud, Ois. Trinidad, p. 303, 1866—Trinidad.

<sup>1</sup> *Calospiza mexicana media* (Berlepsch and Hartert): Similar to *C. m. mexicana*, but median under parts darker, barita yellow instead of massicot yellow; blue of face and throat slightly deeper; humeral patch also somewhat darker, cendre blue rather than calamine blue. Size the same.

This race forms the transition to *C. m. vieilloti*. The humeral patch shows about the same tone as in the Trinidad form, and the blue of the head and throat, while not quite so purplish, nevertheless marks a decided step in the direction of the insular birds. The majority of the Orinoco birds, in the tone of the yellow underneath, occupy an intermediate position between *mexicana* and *vieilloti*. However, the most deeply-colored individuals (one from La Prición, Caura, and one from Guanoco, Orinoco Delta) are just a trifle paler than Trinidad birds, whereas the palest specimen (an adult male from the Caura Valley) cannot be separated from *mexicana*. Examples from the Caura and the Orinoco Delta are identical with a series from the upper Orinoco, presenting very nearly the same amount of variation.

*Material examined*.—Venezuela: Perico, Orinoco River, 2; Maipures, Orinoco River, 10; Caura Valley (Suapuré, La Prición), 7; Guanoco, Delta Amacuro, 4.

<sup>2</sup> *Calospiza mexicana vieilloti* (Sclater): Nearest to *C. m. media*, but still more deeply colored, the blue of the face and throat being darker and of a more purplish hue, and the under parts bright pinard yellow.

*Material examined*.—Trinidad: Caparo, 14; Iacos, 1; Caroni River, 1; Maracas, 1; Aripo (alt. 1,500 feet), 1.

*Calliste brasiliensis* var. *β. vieilloti* Dubois, Bull. Acad. Roy. Belg., 38, p. 129, 1874—Trinidad.

*Calliste flaviventris* b. subsp. *vieilloti* Selater, Cat. Bds. Brit. Mus., 11, p. 121, 1886—part, spec. d-h, Trinidad.<sup>1</sup>

*Calliste flaviventris vieilloti* Chapman, Bull. Amer. Mus. N. H., 6, p. 29, 1894—Princetown, Trinidad.

*Calospiza mexicana vieilloti* Hellmayr, Nov. Zool., 13, p. 14, 1906—Caparo, Laventille, and Valencia, Trinidad (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 188, 1906—Aripo; idem, l.c., 1, p. 358, 1908—Carenage and Aripo, Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1036, 1912—Trinidad.<sup>1</sup>

*Tanagra flaviventris* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 410, 1819—part, Trinidad.

*Calospiza mexicana* (not *Tanagra mexicana* Linnaeus) Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 80, 1851—"Antill. mer."=Trinidad (crit.); idem, Rev. Mag. Zool., (2), 3, p. 169, 1851—"Antill. mer."=Trinidad (crit.).

*Range*.—Island of Trinidad.

1: Trinidad.

**\**Calospiza mexicana boliviana* (Bonaparte). BOLIVIAN TURQUOISE TANAGER.**

*Calospiza boliviana* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, No. 3, p. 80, 1851—Guarayos, Bolivia (type in Paris Museum examined); idem, Rev. Mag. Zool., (2), 3, No. 4, p. 169, Apr., 1851—Guarayos (repr. of orig. descr.).

*Aglai mexicana* (not *Tanagra mexicana* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Yuracares, Bolivia.

*Tanagra flaviventris* (not of Vieillot) d'Orbigny, Voy. Amér. Mérid., Ois., p. 271, 1839—Yuracares and Guarayos, Bolivia.

*Calliste flaviventris* Pelzeln, Orn. Bras., 3, p. 207, 1870—Rio Madeira (Ponto do Rio Guaporé, Borba) and Barra do Rio Negro (spec. in Vienna Museum examined); Layard, Ibis, 1873, p. 379—Pará.

*Calospiza flaviventris* Ihering, Cat. Faun. Braz., 1, p. 354, 1907—Santarém.

*Calliste boliviana* Selater, Contrib. Orn., 1851, p. 69 (crit.); idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 258, 1856—Colombia ("Bogotá"), eastern Peru, Brazil (Ega), and Bolivia (descr.); idem, l.c., 25, p. 264, 1857—Rio Javarri; idem, Monog. Gen. Calliste, p. 67, pl. 30, 1857 (monog.); idem, Cat. Coll. Amer. Bds., p. 69, 1862—Ega, Capim River, and "Bogotá"; Selater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—upper Ucayali, Peru; idem, l.c., 1867, p. 571—Capim River; idem, l.c., 1867, p. 977—Pebas, Peru; idem, l.c., 1873, p. 261—Peru (Sarayacu, upper Ucayali, Pebas, Rio Javarri); idem, l.c., 1879, p. 599—

<sup>1</sup> The record of this form from Bartica Grove, British Guiana, refers doubtless to unusually bright-bellied individuals of *C. m. mexicana*. Vieillot's Turquoise Tanager is strictly confined to Trinidad.

Bolivia (ex d'Orbigny); Dubois, Bull. Acad. Roy. Belg., 38, p. 127, 1874 (crit.); Taczanowski, Orn. Pér., 2, p. 464, 1884—Peruvian localities; Sclater, Cat. Bds. Brit. Mus., 11, p. 121, 1886—Colombia ("Bogotá"), Ecuador (Sarayacu), Peru (Pebas, Ucayali), and Brazil (Ega and Capim River); Berlepsch, Journ. Orn., 37, p. 296, 1889—Tarapoto, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 81, 1889—Yungas, Bolivia; Riker and Chapman, Auk, 7, p. 267, 1890—Diamantina, Santarém; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 340—La Merced, Chanchamayo, Peru; Goodfellow, Ibis, 1901, p. 462—Rio "Tiputini" (Rio Napo), Ecuador; Sneath, Journ. Orn., 55, p. 293, 1907—Pará and Cussary, Brazil.

*Calliste brasiliensis* var.  $\gamma$ . *boliviana* Dubois, Bull. Acad. Roy. Belg., 38, p. 129, 1874 (range).

*Calospiza boliviana* Ihering, Rev. Mus. Paul., 6, p. 432, 1906—Rio Juruá, Brazil; Sneath, Journ. Orn., 56, pp. 9, 522, 1908—Bom Lugar (Rio Purús) and Alcobaça (Rio Tocantins); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1036, 1133, 1912—Colombia ("Bogotá") and Rio Putumayo to Bolivia and western Brazil (crit.); Sneath, Bol. Mus. Goeldi, 8, p. 445, 1914—Pará, Providencia, Rio Mojú, Rio Tocantins (Baião, Alcobaça, Arumatheua), Cussary, Rio Jamauchim (Santa Helena, Conceição), Rio Tapajóz (Boim), and Rio Purús (Bom Lugar), Brazil; Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, Ecuador.

*Calospiza mexicana boliviana* Ihering, Cat. Faun. Braz., 1, p. 355, 1907—Rio Juruá (range); Hellmayr, Nov. Zool., 14, p. 7, 1907—Itaitúba, Rio Tapajóz (crit.); idem, l.c., 14, p. 43, 1907—Teffé, Rio Solimões; idem, l.c., 14, p. 348, 1907—Borba, Rio Madeira; idem, l.c., 17, p. 274, 1910—Rio Madeira (Calama; Santa Izabel, Rio Preto; Marmellos).

*Tangara mexicana boliviana* Hellmayr, Abhandl. Bayr. Akad. Wiss., Math.-phys. Kl., 26, No. 2, pp. 10, 87, 1912—Souza, Pará (Pará localities; crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 598, 1917—La Morelia, Caquetá, Colombia; Hellmayr, Nov. Zool., 30, p. 239, 1923—Guarayos, Bolivia (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 660, 1926—"Napo" and Rio Suno, Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Castanhal, Pará; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 267, 1930—Buenavista, Santa Cruz, Bolivia (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 372, 1930—Ponto do Rio Guaporé, Matto Grosso.

*Tangara boliviana lateralis* Todd, Proc. Biol. Soc. Wash., 35, p. 91, 1922—Apacy, Rio Tapajóz, Brazil (type in Carnegie Museum).

*Range*.—Amazonia, from southeastern Colombia (La Morelia, Caquetá; Cuembí, Rio Putumayo) south through eastern Ecuador and Peru to eastern Bolivia and Brazil (north of the Amazon to Manaós, south of the river as far east as Pará).<sup>1</sup>

<sup>1</sup> Having once more compared good series from various parts of the range, I fail to find sufficient grounds for subdividing *C. m. boliviana*. Birds from Lower Amazonia (*lateralis*) are on average paler yellow below with more heavily black-spotted flanks, but so many individuals are indistinguishable from those of Bolivia that I do not see any practical advantage in maintaining the distinction by a separate name. The presence of pale (greenish) blue feathers in the (mainly light



4: Colombia ("Bogotá," 1); Brazil (Capoeira, Pará, 1; Utinga, Pará, 1); Peru (Moyobamba, 1).

**Calospiza brasiliensis** (Linnaeus).<sup>1</sup> BRAZILIAN TURQUOISE  
TANAGER.

*Tanagra brasiliensis* Linnaeus, Syst. Nat., 12th ed., 1, p. 316, 1766—based on "Le Tangara bleu du Brésil" Brisson, Orn., 3, p. 9, pl. 1, fig. 4; Brazil (type in Réaumur Collection); Wied, Beitr. Naturg. Bras., 3, (1), p. 477, 1830—eastern Brazil (habits, nest, and eggs).

*Tanagra barbadensis* ("Brisson") Kuhl, Buff. et Daub. Fig. Av. Nom. Syst., p. 3, 1820—based on "Tangara bleu, de Cayenne" Daubenton, Pl. Enl., pl. 155, fig. 1; Cayenne (errore).

*Calliste brasiliensis* Bonaparte, Consp. Gen. Av., 1, (1), p. 234, 1850—Brazil; Sclater, Contrib. Orn., 1851, p. 68—Brazil; idem, Proc. Zool. Soc. Lond., 24, p. 256, 1856—southeastern Brazil (descr.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 180, 1856—Nova Friburgo, Rio; Sclater, Monog. Gen. Calliste, p. 61, pl. 28, 1857—eastern coast of Brazil (monog.); idem, Cat. Coll. Amer. Bds., p. 68, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 207, 1870—Sapitiba, Rio; Sclater, Cat. Bds. Brit. Mus., 11, p. 119, 1886—Bahia and (?)Cayenne; Ihering, Rev. Mus. Paul., 4, p. 153, 1900—Nova Friburgo.

*Calliste albiventris* G. R. Gray, Genera Bds., 2, p. 366, 1844—based on "Tangara bleu, de Cayenne" Daubenton, Pl. Enl., pl. 155, fig. 1, "Cayenne," errore; Sclater, Cat. Coll. Amer. Bds., p. 68, 1862—"Cayenne."

*Callospiza brasiliensis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 168, 1851—Brazil (crit.).

*Calospiza brasiliensis* Ihering, Cat. Faun. Braz., 1, p. 354, 1907—Bahia and Espirito Santo (Rio Doce); Berlepsch, Nov. Zool., 15, p. 114, 1908—"Cayenne"; idem, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1037, 1133, 1912—Bahia to Rio de Janeiro (crit.).

grayish violet blue) humeral patch is subject to much individual variation, though it appears that such specimens are less common in Upper Amazonia (Colombia to Peru) than they are in Lower Amazonia and on the Rio Madeira. Three adults from Manáos, however, have the smaller upper wing coverts strongly suffused with squill blue, much more so than any specimen from south of the Amazon, and thereby form the passage to *C. m. mexicana*, while in other respects (such as deep yellow belly and bright blue face and throat) they do not differ from the general "run" of *boliviana*.

*Additional material examined.*—Colombia: Cuembí, Rio Putumayo, 1; "Bogotá," 6.—Ecuador: Sarayacu, 2; Rio Siputini (Napo), 2; unspecified, 1.—Peru: Iquitos, 2; Loretoyacu, 1; lower Ucayali, 1; upper Ucayali, 5; Yahuar mayo, Carabaya, 2.—Bolivia: Guarayos, 1 (the type); Buenavista, Santa Cruz, 4; San Mateo, 4.—Brazil: Ponto do Rio Guaporé, Matto Grosso, 1; Calama, Rio Madeira, 2; Santa Izabel, Rio Preto, 2; Marmellos, Rio Madeira, 1; Humaytá, Rio Madeira, 1; Borba, Rio Madeira, 2; Teffé, Rio Solimões, 2; Manáos, 3; Cussary, 1; Itaituba, Rio Tapajóz, 1; Santarém, 2; Alcobaça, Rio Tocantins, 1; Pará, 5.

<sup>1</sup> Though probably conspecific with *C. mexicana*, as claimed by Dubois (Bull. Acad. Roy. Belg., 38, pp. 127, 129, 1874), I hesitate to reduce it to subspecific rank on account of the constancy of its characters and its widely separated range.

*Range*.—Wooded coast region of southeastern Brazil, from southern Bahia (Caravellas) to Rio de Janeiro (Sapitiba, Nova Friburgo).<sup>1</sup>

**Calospiza cabanisi** (Sclater).<sup>2</sup> CABANIS'S TANAGER.

*Calliste s. Callispiza sclateri* (not *Calliste sclateri* Lafresnaye) Cabanis, Journ. Orn., 14, p. 163, 1866—Costa Cuca, western Guatemala (type in Berlin Museum examined).

*Calliste cabanisi* Sclater, Ibis, (n.s.), 4, p. 71, pl. 3, 1868—new name for *Calliste sclateri* Cabanis (fig. of type); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 271, 1883—Costa Cuca; Sclater, Cat. Bds. Brit. Mus., 11, p. 123, 1886—Costa Cuca.

*Calospiza cabanisi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1037, 1912—Costa Cuca; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 42, 1902—Costa Cuca.

*Tangara cabanisi* Griscom, Bull. Amer. Mus. N. H., 64, p. 376, 1932—Costa Cuca.

*Range*.—Tropical zone of western Guatemala (Costa Cuca).

**\*Calospiza palmeri** Hellmayr.<sup>3</sup> PALMER'S TANAGER.

*Calospiza palmeri* Hellmayr, Rev. Franç. d'Orn., 1, p. 49, Aug., 1909—Sipi, Rio Sipi, Chocó, Colombia (type in Munich Museum); idem, Ibis, 1910,

<sup>1</sup> The occurrence of *C. brasiliensis* in French Guiana is altogether unlikely. A specimen in the British Museum (from the collection of the late P. L. Sclater) has all the appearance of the skins exported from "Cayenne," and differs from Bahia skins by decidedly smaller size (wing, 74½; tail, 55), but, as remarked by Berlepsch, it is extremely doubtful if it was really shot in French Guiana. An adult female obtained by Natterer at Sapitiba (near Rio de Janeiro) on March 26, 1818, presents the same small dimensions (wing, 75; tail, 53), suggesting the possible existence of a recognizable race in southern Brazil.

*Material examined*.—Brazil: Bahia, 18; Sapitiba, 1.

<sup>2</sup> *Calospiza cabanisi* (Sclater), known only from the type specimen secured by Bernoulli many years ago, is allied to *C. palmeri*, but differs in various important points. The black on the face is much less extended, being restricted to the lores and a narrow line across the forehead and round the base of the lower mandible; the pileum is of a dull dark blue with the bases of the feathers largely black; the interscapular region is metallic grass green; the lower back and rump are dull azure blue instead of light neutral gray; the sides of the head and the throat dingy bluish green instead of pure white; the remainder of the lower parts is bluish white, more whitish in the middle, decidedly tinged with bluish green on the flanks; the feathers of the chest are black with the slightly attenuated tips bluish white, but without trace of the (silvery or golden) yellowish color, so conspicuous a feature in *C. palmeri*; the smaller wing coverts and the edges to the greater series are azure blue instead of pallid neutral gray; the base of the lower mandible pale brownish. Wing, 86; tail, 58½; bill, 12.

<sup>3</sup> *Calospiza palmeri* Hellmayr, being well figured in the Ibis for 1910, pl. 5, need not be described here.

An adult from Darien (Mount Sapo) agrees perfectly with birds from Chocó, while a single example obtained by F. Spillmann in December, 1925, on the Rio Saloya, Ecuador, is somewhat less yellowish on the chest.

*Additional material examined*.—Colombia: Sipi, Rio Sipi, Chocó, 5.—Ecuador: Rio Saloya, Prov. Pichincha, 1 (Vienna Museum).

p. 330, pl. 5—Sipi, Colombia; idem, Proc. Zool. Soc. Lond., 1911, p. 1107—Sipi, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1037, 1912—Rio Sipi.

*Tangara palmeri* Chapman, Bull. Amer. Mus. N. H., 36, p. 597, 1917—San José, Colombia; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 226, 1922—Mount Sapó, eastern Panama.

*Range*.—Tropical zone of the Pacific coast of eastern Panama (Mount Sapó, Darien), western Colombia (Sipi, Rio Sipi; San José), and western Ecuador (Rio Saloya, Prov. Pichincha).

1: Panama (Mount Sapó, Darien, 1).

**Calospiza inornata inornata** (Gould). PLAIN-COLORED TANAGER.

*Calliste inornata* Gould, Proc. Zool. Soc. Lond., 23, p. 158 (footnote), Dec. 15, 1855—"Bogotá," Colombia (type in coll. of J. Gould, now in British Museum); Sclater, l.c., 24, p. 258, 1856—"Bogotá" (descr.); idem, Monog. Gen. Calliste, p. 103, pl. 45, 1857—"Bogotá" (fig. of type); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Nichi, Antioquia, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 273, 1883—part, Colombia (Nechi, Antioquia); Berlepsch, Journ. Orn., 32, p. 291, 1884—Bucaramanga (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 120, 1886—part, spec. h-m, Colombia ("Bogotá," Remedios, Nichi, Antioquia).

*Calospiza inornata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 51, 1902—part, Colombia ("Bogotá," Remedios, Nichi, Bucaramanga); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1037, 1912—part, Colombia (Bucaramanga, "Bogotá," Remedios, Nichi).

*Tangara inornata inornata* Chapman, Bull. Amer. Mus. N. H., 36, p. 598, 1917—Puerto Valdivia, lower Cauca, Colombia.

*Range*.—Tropical zone of Colombia (Magdalena Valley, west to the lower Cauca).<sup>1</sup>

**\*Calospiza inornata languens** (Bangs and Barbour).<sup>2</sup> PANAMA PLAIN-COLORED TANAGER.

*Tangara inornata languens* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 227, 1922—Loma del León and Mount Sapó, Panama (type, from Loma del León, in Museum of Comparative Zoology, Cambridge, Mass.); Griscom, l.c., 69, p. 188, 1929—Cana, Darien; idem, l.c., 72, p. 370, 1932—Permé and Obaldia, eastern Panama (crit.).

*Calliste inornata* (not of Gould) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 142—Turbo, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298,

<sup>1</sup> *Material examined*.—Colombia: "Bogotá," 3; "Bucaramanga," 3; Remedios, Antioquia, 1.

<sup>2</sup> *Calospiza inornata languens* (Bangs and Barbour): Similar to *C. i. inornata*, but coloration above decidedly paler, neutral gray rather than deep neutral gray, with the bluish tinge on forehead and rump much less pronounced; throat and sides of body much paler gray with hardly any bluish tone. Size about the same.

*Additional material examined*.—Panama: Paraiso Station, 1; Lion Hill, 2; Punta de Sabana, 2; Laguna Pita, 1; "Veragua," 2.

1861—Lion Hill, Panama Railroad; Sclater, Cat. Coll. Amer. Bds., p. 359, 1862—Panama; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Panama Railroad (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 273, 1883—part, Panama ("Veraguas," Panama City, Lion Hill Station, Turbo); Sclater, Cat. Bds. Brit. Mus., 11, p. 121, 1886—part, spec. a-g, "Veraguas" and Panama (Lion Hill, Paraiso Station); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Punta de Sabana and Laguna della Pita, Darien, Panama.

*Calospiza inornata* Bangs, Proc. New Engl. Zool. Cl., 2, p. 30, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 51, 1902—part, "Veragua" and Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1037, 1912—"Veragua," Panama (Lion Hill, Paraiso) and Turbo, Colombia.

*Calliste ornata* (lapsus) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332 (in text), 1861 (cf. Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 227, 1922).

*Tangara inornata* Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 278, 1918—Gatún, Panama; Hallinan, Auk, 41, p. 322, 1924—New Culebra, Canal Zone, Panama.

*Range.*—Tropical zone of eastern Panama (west to the Canal Zone) and the adjacent portion of extreme northwestern Colombia (Turbo, Gulf of Uraba).

4: Panama (Colón, 3; unspecified, 1).

\**Calospiza gyrola albertinae* (Pelzeln).<sup>1</sup> ALBERTINA'S TANAGER.

*Calliste albertinae* Pelzeln, Ibis, (4), 1, p. 337, 1877—Salto do Girão, Rio Madeira, Brazil (type in Vienna Museum examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 118, 1886 (ex Pelzeln).

*Calospiza albertinae* Hellmayr, Nov. Zool., 12, p. 273, 1905—Igarapé-Assú, Pará (crit.); idem, l.c., 13, p. 357, 1906—Santo Antonio do Prata, Pará; Ihering, Cat. Faun. Braz., 1, p. 354, 1907 (range); Sneath, Journ. Orn., 56, p. 522, 1908—Alcobaça, Rio Tocantins (descr. of female); Hellmayr, Nov. Zool., 17, p. 273, 1910—Maroins, Rio Machados, Matto Grosso (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1038, 1912—Pará to the Rio Madeira; Sneath, Bol. Mus. Goeldi, 8, p. 446, 1914—Peixe-Boi (Pará), Rio Tocantins (Alcobaça), and Rio Jamauchim (Santa Elena, Tucunaré).

<sup>1</sup>*Calospiza gyrola albertinae* (Pelzeln): Nearest to *C. g. caltharinae*, but top and sides of the head and the chin spot decidedly lighter (burnt sienna rather than chestnut); no bright yellow posterior border to the rufous hood; hind neck and upper back much more yellowish, javel green instead of shining grass green; lesser upper wing coverts rufous (Sanford's brown) instead of lemon chrome; remainder of wing coverts, tertials, and outer webs of remiges shining yellowish oil green instead of grass green, etc. Wing, 70–73, (female) 69; tail, 45–49; bill, 10–11.

*Additional material examined.*—Santo Antonio do Prata, Pará, 1; Igarapé-Assú, Pará, 1; Santa Elena, Rio Jamauchim, 2; Salto do Girão, Rio Madeira, 1 (the type); Maroins, Rio Machados, 1.



*Tangara albertinae* Hellmayr, Abhandl. Bayr. Akad. Wiss., Math.-phys. Kl., 26, No. 2, p. 87, 1912—Pará region (Igarapé-Assú, Santo Antonio); Naumburg, Bull. Amer. Mus. N. H., 60, p. 372, 1930—Barão Melgaço, northern Matto Grosso.

*Calliste gyroloides* (not *Aglaiia gyroloides* Lafresnaye) Pelzeln, Orn. Bras., 3, p. 207, 1870—part, Salto do Girão, Rio Madeira.

*Range*.—Brazil, south of the Amazon, from the Pará region west to the Rio Madeira and south to northern Matto Grosso (Barão Melgaço).

1: Brazil (Utinga, Pará, 1).

\***Calospiza gyrola gyrola** (Linnaeus). BUFFON'S GREEN TANAGER.

*Fringilla gyrola* Linnaeus, Syst. Nat., 10th ed., 1, p. 181, 1758—based on "The Red-headed Finch" Edwards, Nat. Hist. Bds., 1, p. 23, pl. 23; Surinam (type in coll. of the Duke of Richmond).

*Aglaiia chrysoptera* Swainson, Anim. Menag., p. 356, Dec., 1837—Demerara, British Guiana (location of type not stated, probably in the University Museum, Cambridge, Engl.).

*Tangara gyrola* Desmarest, Hist. Nat. Tangaras, livr. 11, text to pls. 6, 7, 1807—Cayenne, Surinam, and "Brésil."

*Calliste gyrola* Bonaparte, Consp. Gen. Av., 1, (1), p. 234, 1850—"Brazil"; Selater, Contrib. Orn., 1851, p. 67—Guiana; idem, Proc. Zool. Soc. Lond., 24, p. 255, 1856—Cayenne and British Guiana (desc.); idem, Monog. Gen. Calliste, p. 55, pl. 25, 1857—same localities (monog.); idem, Cat. Coll. Amer. Bds., p. 67, 1862—Cayenne; Dubois, Bull. Acad. Roy. Belg., 38, p. 129, 1874—Guianas; Salvin, Ibis, 1885, p. 209—British Guiana (Bartica Grove, Merumé Mountains, Camacusa, Roraima); Selater, Cat. Bds. Brit. Mus., 11, p. 116, 1886—Cayenne and British Guiana; Penard, Vog. Guyana, 2, p. 437, 1910—Surinam.

*Callospiza gyrola* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, "1848," p. 669, 1849—British Guiana.

*Gyrola chrysoptera* Bonaparte, Rev. Mag. Zool., (2), 3, p. 139, 1851—"Brazil."

*Calospiza gyrola* Berlepsch, Nov. Zool., 15, p. 114, 1908—Ipousin, Rio Approague, French Guiana; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1037, 1912 (range).

*Tangara gyrola* Chubb, Bds. Brit. Guiana, 2, p. 510, 1921—British Guiana (many localities).

*Tangara gyrola gyrola* Chapman, Bull. Amer. Mus. N. H., 63, p. 131, 1931—Roraima (Paulo, Arabupu).

*Range*.—French, Dutch, and British Guiana.<sup>1</sup>

<sup>1</sup> Birds from the lowlands of British Guiana agree with others from Cayenne, while those from Roraima (alt. 3,000–3,500 feet) are slightly larger (wing of male, 76–77; of female, 73–74).

*Additional material examined*.—French Guiana: Cayenne, 2; Ipousin, 1.—Surinam: near Paramaribo, 1.—British Guiana: Bartica Grove, 9; Demerara, 3; Roraima, 4.

5: British Guiana (Caramang River, 1; Demerara River, 2; Mazaruni River, 1; unspecified, 1).

\**Calospiza gyrola catharinae* Hellmayr.<sup>1</sup> CATHARINA'S GREEN TANAGER.

*Calospiza gyroloides catharinae* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1106—Chaquimayo, Carabaya, southeastern Peru (type in Munich Museum); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1038, 1134, 1912—Upper Amazonia from eastern Colombia and northwestern Brazil to Bolivia (crit.); Sneath, Bol. Mus. Goeldi, 8, p. 446, 1914 (range).

*Tangara gyroloides catharinae* Chapman, Bull. Amer. Mus. N. H., 36, p. 597, 1917—Buena Vista, eastern Colombia; Bangs, Proc. New Engl. Zool. Cl., 6, p. 76, 1917 (range); idem and Noble, Auk, 35, p. 459, 1918—Charapi (east of Tabaconas), northern Peru; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 21, 1920—Yahuarmayo and Chaquimayo, southeastern Peru; idem, Nov. Zool., 30, p. 239, 1923—Yuracares, Bolivia; Chapman, Bull. Amer. Mus. N. H., 55, p. 659, 1926—eastern Ecuador (Zamora, Macas region, Rio Suno, below San José, and below Oyacachi); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 442, 1930—Huachipa and Vista Alegre, Dept. Huánuco, Peru.

*Aglaiia gyrola* (not *Fringilla gyrola* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Yuracares, Bolivia (spec. in Paris Museum examined).

*Tanagra gyrola* d'Orbigny, Voy. Amér. Mérid., Ois., p. 272, 1839—Yuracares.

*Calospiza gyrola* Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 202, 1846—wooded region of eastern Peru.

*Calliste gyroloides* (not *Aglaiia gyroloides* Lafresnaye<sup>2</sup>) Sclater, Proc. Zool.

<sup>1</sup>*Calospiza gyrola catharinae* Hellmayr: Similar to *C. g. gyrola* in size and in possessing a shining lemon chrome humeral patch, but yellow nuchal collar much wider, the head much darker (chestnut rather than burnt sienna), a light cerulean blue patch on the rump, and the under parts much more extensively blue. Differs from the other blue-rumped races by smaller size with a weaker, slenderer bill; by having the rufous cap bordered posteriorly by a broad, bright lemon chrome nuchal band; the upper throat dark sulphate green, separating the rufous chin spot from the blue foreneck; and the lesser as well as the adjoining median upper wing coverts bright lemon chrome, forming an extensive humeral patch about twice as large and much deeper yellow than in *C. g. nupera* and *C. g. bangsi*. Wing (male), 70–77; tail, 49–54; bill, 10–11.

Three birds from the upper Rio Negro have the cap very dark, chestnut rather than mahogany red, but they are matched by one (out of two) from the Rio Putumayo, Colombia, while others from eastern Colombia are not different from other Amazonian skins.

*Additional material examined*.—Colombia: Cuembí, Rio Putumayo, 2; "Bogotá," 5.—Ecuador: Sarayacu, 2; San José, 2.—Brazil: Marabitanas, Rio Negro, 1; Rio Xié, 2.—Peru: Huambo, 2; Huayabamba, 1; La Merced, Chanchamayo, 1; Chanchamayo Valley, 4; Marcapata, Dept. Cuzco, 3; Chaquimayo, Carabaya, 2; Yahuarmayo, Carabaya, Dept. Puno, 2.—Bolivia: San Mateo, Cochabamba, 2; Yuracares, 2.

<sup>2</sup>*Aglaiia gyroloides* Lafresnaye (Rev. Zool., 10, p. 277, 1847) is a new name for *Aglaiia peruviana* Swainson (Anim. Menag., p. 356, Dec., 1837), preoccupied by *Tanagra peruviana* Desmarest, 1805, a species (of the genus *Calospiza*) peculiar

Soc. Lond., 22, p. 115, 1854—Quijos, eastern Ecuador; idem, l.c., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 255, 1856—part, New Granada ("Bogotá"), Ecuador (Quixos), eastern Peru, and Bolivia (Yuracares); idem, l.c., 25, p. 264, 1857—Rio Javarri, Brazil; idem, l.c., 26, pp. 74, 453, 1858—Rio Napo and Zamora, eastern Ecuador; idem, Monog. Gen. Caliste, p. 57, pl. 26, 1857—part, Colombia ("Bogotá"), Ecuador (Rio Napo), eastern Peru, and Bolivia (Yuracares); idem, Cat. Coll. Amer. Bds., p. 67, 1862—"Bogotá" and eastern Peru; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 749—Chyavetas, Peru; Pelzeln, Orn. Bras., 3, p. 207, 1870—part, Marabitanas (Rio Negro) and Rio Xié, Brazil (spec. in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata, Peru; idem, l.c., 1873, p. 261—Chyavetas and Rio Javarri, Peru; Taczanowski, l.c., 1874, p. 514—Monterico, Ayacucho, Peru; Sclater and Salvin, l.c., 1879, p. 599—Yuracares, Bolivia; Taczanowski, l.c., 1882, p. 11—Huambo, Peru; idem, Orn. Pér., 2, p. 465, 1884—Peru (Chyavetas, Rio Javarri, Monterico, Cosnipata, Huambo, Chanchamayo); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 78—Mapoto, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 117, 1886—part, spec. q, r, u-a', Colombia ("Bogotá"), Ecuador (San José, Sarayacu, Rio Napo), Brazil (Ega), and Peru; Allen, Bull. Amer. Mus. N. H., 2, pp. 71, 81, 1889—Rio Napo, Ecuador, and Mapiri, Bolivia; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 340—Peru (La Merced and La Gloria, Chanchamayo, and Garita del Sol, Vitoc); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—part, spec. a-e, eastern Ecuador (San José and Rio Zamora; crit.).

*Calospiza gyroloides* Berlepsch and Stolzmann, Ornith., 13, pp. 78, 110, 1906—Idma, Urubamba, and Marcapata (Huaynapata, Saniaca), Dept. Cuzco, Peru; Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Équat., 9, p. B. 95, 1911—part, Gualaquiza, eastern Ecuador; idem, Rev. Franç. d'Orn., 2, p. 9, 1911—Nuevo Loreto, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Canelos, Ecuador.

*Calliste gyrola* var. *a. gyroloides* Dubois, Bull. Acad. Roy. Belg., 38, p. 129, 1874—part, Peru and Bolivia.

*Gyrola cyanoventris* (not *Tanagra cyanoventris* Vieillot, 1819) Bonaparte, Rev. Mag. Zool., (2), 3, p. 139, 1851—Peru (diag.).

*Range*.—Upper Amazonia, from the eastern slope of the eastern Andes in Colombia (Buena Vista, above Villavicencio; Cuembí, Rio Putumayo) and from northwestern Brazil (Marabitanas, Rio Negro;

to southeastern Brazil. Swainson based his description on a specimen from "Peru" in "Mr. W. Hooker's Collection," and it may be presumed that, like the types of other species named by him in the same work from the same collection, it was secured by the orchid hunter Andrew Mathews somewhere in northern Peru, viz., in the range of *C. g. catharinae*. However, the describer, in comparing his new bird with *A. chrysoptera* [= *C. g. gyrola*] of the Guianas, expressly insists on the "shoulder covers being green, instead of golden yellow," a statement that forbids the use of the name for the Upper Amazonian form I have called *C. g. catharinae*. Until the type comes to light, I am afraid the term *A. gyroloides* will remain indeterminate. Unfortunately, Mr. Kinnear's efforts to locate it have been unsuccessful; it is apparently neither at Liverpool nor at Cambridge.



Ega [= Teffé] south through eastern Ecuador and Peru to northern Bolivia (Mapiri; San Mateo, Dept. Cochabamba; Yuracares).

14: Peru (Huachipa, 8; Vista Alegre, 6).

\**Calospiza gyrola nupera* (Bangs).<sup>1</sup> WEST ECUADORIAN GREEN TANAGER.

*Tangara gyroloides nupera* Bangs, Proc. New Engl. Zool. Cl., 6, p. 76, Dec., 1917—Nanegal, western Ecuador (type in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 401, 1930).

*Calliste gyroloides* (not *Aglaia gyroloides* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 27, p. 139, 1859—Pallatanga; idem, l.c., 28, pp. 87, 292, 1860—Nanegal and Esmeraldas; Dubois, Bull. Acad. Roy. Belg., 38, p. 127, 1874 (crit.); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 545—Chimbo; Sclater, Cat. Bds. Brit. Mus., 11, p. 117, 1886—part, western Ecuador; Hartert, Nov. Zool., 5, p. 482, 1898—Chimbo; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—part, spec. f-k, Gualea, western Ecuador; Goodfellow, Ibis, 1901, p. 461—Canzacota, San Nicolas, and Gualea (seasonal migration).

*Calliste gyrola* var. *a. gyroloides* Dubois, Bull. Acad. Roy. Belg., 38, p. 129, 1874—part, Ecuador.

*Calospiza gyroloides* Ménégau, Miss. Serv. Géog. Armée Mes. Arc Mérid. Équat., 9, p. B. 95, 1911—part, western Ecuador (Santo Domingo, San Nicolas, Gualea).

*Calospiza gyroloides bangsi* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1105—part, western Ecuador (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1038, 1133, 1912—part, western Ecuador (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Gualea and below Mindo.

*Tangara gyroloides bangsi* Chapman, Bull. Amer. Mus. N. H., 36, p. 597, 1917—Ricaurte, Colombia; idem, l.c., 55, p. 659, 1926—western Ecuador (Esmeraldas, Rio de Oro, Naranjo, Bucay, Chimbo, La Chonta, Portovel, Punta Santa Ana, Rio Pindo, Salvias, Las Piñas, Guainche, Alamor, and Cebollal; crit.).

*Range*.—Tropical and Subtropical zones of western Ecuador and extreme southwestern Colombia (Ricaurte and San Pablo, State of Nariño).

1: Ecuador (Chimbo, 1).

<sup>1</sup>*Calospiza gyrola nupera* (Bangs): Immediately distinguished from *C. g. catharinae* by much larger, stouter bill; paler rufous (Sanford's brown) cap with the yellow posterior border much narrower and less conspicuous; absence of the dark green gular area, the paler blue of the under parts extending to the rufous chin spot; and especially by having the yellow humeral patch much less extensive as well as of a much lighter tone (lemon yellow instead of deep lemon chrome). In fact, this form is much nearer to *C. g. bangsi* and differs merely by somewhat paler (Sanford's brown instead of burnt sienna to mahogany red) head and slightly lighter, more greenish blue of the under parts. Wing (male), 78-81; tail, 51-55, once 58; bill, 12-13.

*Additional material examined*.—Western Ecuador: Paramba, 5; San Nicolas, 2; Gualea, 8; Chimbo, 1.—Colombia: San Pablo, Prov. Tuqueres, 1.



\**Calospiza gyrola deleticia* Bangs.<sup>1</sup> GREEN-SHOULDERED Tanager.

*Calospiza gyroloides deleticia* Bangs, Proc. Biol. Soc. Wash., 21, p. 160, 1908—San Antonio, western Andes of Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 400, 1930).

*Calliste gyroloides* (not *Aglaia gyroloides* Lafresnaye?)<sup>2</sup> Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 332, 1861—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Isthmus of Panama; Wyatt, Ibis, 1871, p. 325—mountain chain between Bucaramanga and the Magdalena, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Concordia (western Andes) and Remedios, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 270, 1883—part, Panama Railroad and Colombia; Berlepsch, Journ. Orn., 32, p. 289, 1884—Bucaramanga, Colombia (spec. examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 117, 1886—part, spec. k, l, s, t, Panama (Lion Hill) and Colombia (Remedios, Concordia).

*Calospiza gyroloides* Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Ibagüé, Colombia; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 43, 1902—part, Panama and Colombia.

*Calospiza gyroloides gyroloides* Hellmayr, Proc. Zool. Soc. Lond., 1911, pp. 1104, 1005—western Andes of Colombia (Jiménez, Pueblo Rico, Siató, Rio Lima, etc.; crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1038, 1131, 1912—Colombia (crit.).

*Tangara gyroloides gyroloides* Chapman, Bull. Amer. Mus. N. H., 36, p. 596, 1917—western Andes (San Antonio, Las Lomitas, Cocal, Gallera), La Frijolera (lower Cauca), and west slope of eastern Andes (Andalucia; Aguadita; El Consuelo, above Honda), Colombia; Bangs, Proc. New Engl. Zool. Cl., 6, p. 76, 1917—Colombia to line of Panama Railroad; idem and Barbour, Bull. Mus. Comp. Zool., 65, p. 226, 1922—Mount Sapo, Darien; Griscom, l.c., 69, p. 188, 1929—Cana, Darien (crit.); idem, l.c., 72, p. 370, 1932—Obaldia, Panama.

*Range*.—Tropical and Subtropical zones of Colombia, including the west slope of the eastern Andes, but excluding the Santa Marta

<sup>1</sup> *Calospiza gyrola deleticia* Bangs: Nearest to *C. g. nupera* and *C. g. bangsi*, but yellow border to rufous cap absent or merely suggested, and lesser upper wing coverts bright green like the larger ones or very slightly more yellowish than the latter. The color of the rufous cap varies from the Sanford's brown of *C. g. nupera* to the mahogany red of *C. g. bangsi*. Wing (male), 75–82; tail, 52–57; bill, 12–13.

Birds from the Canal Zone are intermediate to *C. g. bangsi*.

*Additional material examined*.—Colombia: Pueblo Rico, San Juan slopes, western Andes, 3; Siató, Rio Siató, near Pueblo Rico, 2; Jiménez, western Andes, 1; Rio Lima, Cauca, 2; Bucaramanga, 1; "Bogotá," 7.—Panama: Panama Railroad, 2.

<sup>2</sup> Though I had formerly applied the name *Aglaia gyroloides* Lafr. to the present form, I now prefer, for reasons given on page 143 (footnote 2), to revert to Bangs's term *deleticia*, whose pertinence is beyond question, whereas Swainson's statement that "the rufous on the head is terminated on the nape by a yellow margin" (as in *C. g. gyrola*) is not in agreement with the west Colombian race.

region and the extreme southwestern section south of the Rio Patia, and extending north through eastern Panama to the Canal Zone.

13: Colombia (Rio Lima, 4; Andalucia, Huila, 2; "Bogotá," 7).

\**Calospiza gyrola bangsi* Hellmayr.<sup>1</sup> BANGS'S GREEN TANAGER.

*Calospiza gyroloides bangsi* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1105—Boquete, Chiriquí, Panama (type in Munich Museum); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1038, 1133, 1912—part, Costa Rica, Chiriquí, and Veraguas.

*Tangara gyroloides bangsi* Bangs, Proc. New Engl. Zool. Cl., 6, p. 76, 1917—Costa Rica to Veragua; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 462, 1928—Boquete Trail, Panama.

*Calliste gyroloides* (not *Aglaiia gyroloides* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 142, 1856—David, Chiriquí; idem, l.c., p. 255, 1856—part, David, Chiriquí; idem, Monog. Gen. Calliste, p. 57, 1857—part, David; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Santa Fé (Veraguas) and David (Chiriquí); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica (Barránca, Guatíl, Dota); Frantzius, Journ. Orn., 17, p. 298, 1869—Costa Rica (Sabanilla de Pirris, Guatíl, Dota, Barránca); Salvin, Proc. Zool. Soc. Lond., 1870, p. 186—Veraguas (Calovévora, Boquete de Chitrá, Cordillera del Chucú) and Chiriquí (Bugaba, Volcan de Chiriquí); Boucard, l.c., 1878, p. 54—Navárro, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 270, 1883—part, Costa Rica, Chiriquí, and Veragua; Sclater, Cat. Bds. Brit. Mus., 11, p. 117, 1886—part, spec. a-j, Costa Rica (Guatíl, Turrialba), Veragua (Santa Fé, Calovévora), and Chiriquí (Bugaba); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (Cartago, Naránjo de Cartago, Pózo Azúl de Pirris, Sarchí de Alajuéla, Los Anonos de San José); Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 136, 1893—Boruca, Térraba, and Buenos Aires, Costa Rica; idem, l.c., 6, p. 13, 1895—Pózo Pital and San Marcos, Costa Rica; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 3, 1899—Chiriquí.

*Callispiza gyroloides* Salvadori, Atti. Accad. Sci. Torino, 4, p. 174, 1868—Costa Rica.

*Calospiza gyroloides* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 43, 1902—part, Costa Rica to Veragua; Bangs, Proc. New Engl. Zool. Cl., 3, p. 65, 1902—Boquete, Chiriquí; idem, Auk, 24, p. 308, 1907—Costa Rica (Boruca, Barránca de Térraba); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 278, 1910—Guayábo, Costa Rica.

*Tangara gyroloides gyroloides* Carriker, Ann. Carnegie Mus., 6, p. 861, 1910—Costa Rica (range).

<sup>1</sup> *Calospiza gyrola bangsi* Hellmayr: Similar to *C. g. delecticia*, but lesser upper wing coverts lemon yellow and yellow nuchal collar more conspicuous. Wing (male), 75-81; tail, 52-56; bill, 12-13.

*Additional material examined*.—Costa Rica: Naránjo, 1; Boruca, 30; Buenos Aires, 2.—Panama: Boquete, Chiriquí, 5; Calovévora, Veraguas, 1.

*Range*.—Tropical and Subtropical zones of Costa Rica and western Panama, east to Veraguas.

10: Costa Rica (Boruca, 4; Guayábo, 2; Santa Cruz de Turrialba, 2; Peralta, 2).

**Calospiza gyrola viridissima (Lafresnaye).<sup>1</sup> DESMAREST'S GREEN Tanager.**

*Calliste desmaresti(i)* (not *Tanagra desmaresti* Vieillot, 1819) G. R. Gray, *Genera Bds.*, 2, p. 366, 1844—based on *Tanagra gyrola* Swainson, *Zool. Illust.*, (n.s.), 1, No. 6, pl. 28, 1829; locality not indicated, Trinidad suggested by Hellmayr (*Nov. Zool.*, 13, p. 14, 1906); Sclater, *Contrib. Orn.*, 1851, p. 67 (crit.); Cassin, in Gilliss, *U. S. Astron. Exp.*, 2, p. 182, pl. 19, fig. 2, 1855—"the more southern of the West Indies"; Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 256, 1856—Venezuela and Trinidad (descr.); idem, *Monog. Gen. Calliste*, p. 59, pl. 27, 1857—part, Trinidad (monog.); idem, *Cat. Coll. Amer. Bds.*, p. 68, 1862—Trinidad and Venezuela; Taylor, *Ibis*, 1864, p. 82—Trinidad; Léotaud, *Ois. Trinidad*, p. 302, 1866—Trinidad; Finsch, *Proc. Zool. Soc. Lond.*, 1870, p. 579—Trinidad; Dubois, *Bull. Acad. Roy. Belg.*, 38, p. 127, 1874 (crit.); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 118, 1886—part, spec. d, f-i, "Venezuela" and Trinidad; Chapman, *Bull. Amer. Mus. N. H.*, 7, p. 322, 1895—Caura Valley, Trinidad; Phelps, *Auk*, 14, p. 364, 1897—San Antonio [Sucre], Venezuela; Williams, *Bull. Dept. Agric. Trin. Tob.*, 20, p. 129, 1922—Maracas Valley, Trinidad.

*Aglaiia viridissima* Lafresnaye, *Rev. Zool.*, 10, p. 277, 1847—based on *Tanagra gyrola* Swainson, *Zool. Illust.*, (n.s.), 1, No. 6, pl. 28, 1829.

*Gyrola viridissima* Bonaparte, *Rev. Mag. Zool.*, (2), 3, p. 139, 1851—"Antilles" = Trinidad (diag.).

*Calospiza desmaresti* Hellmayr, *Nov. Zool.*, 13, p. 14, 1906—part, Trinidad (Caparo and Chaguaramas) and northeastern Venezuela (near Cumaná); Cherrie, *Sci. Bull., Mus. Brookl. Inst.*, 1, p. 188, 1906—Aripo, Trinidad; idem, l.c., p. 357, 1908—Carenage and Aripo, Trinidad; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1039, 1912—part, Trinidad and "Cumaná," Venezuela.

*Tangara desmaresti* Stone, *Proc. Acad. Nat. Sci. Phila.*, 65, p. 210, 1913—Cariquito, Sucre, Venezuela.

*Calliste gyrola* var. *β. desmaresti* Dubois, *Bull. Acad. Roy. Belg.*, 38, p. 129, 1874—Trinidad and Venezuela.

*Tangara viridissima viridissima* Chapman, *Amer. Mus. Nov.*, 191, p. 12, 1925—Neverí, Sucre, Venezuela.

<sup>1</sup>*Calospiza gyrola viridissima* (Lafresnaye) and the closely allied *C. g. toddi* differ from *C. g. gyrola* principally by lacking the well-defined bright blue area along the median portion of the under parts and the shining lemon chrome humeral patch. In the latter respect, they closely resemble the otherwise very different (blue-bellied and blue-rumped) *C. g. delecticia*, of Colombia. Although no intermediates to the neighboring "species" are known, both are clearly derivatives of a common ancestral stock, from which *C. gyrola* and the blue-rumped group ("*gyroloides*" auct.) have developed.



*Range*.—Tropical zone of Trinidad and northeastern Venezuela (State of Sucre).<sup>1</sup>

\**Calospiza gyrola toddi* (Bangs and Penard).<sup>2</sup> TODD'S GREEN TANAGER.

*Tanagra viridissima toddi* Bangs and Penard, Proc. Biol. Soc. Wash., **34**, p. 92, 1921—San Francisco, Santa Marta region, Colombia (type in Museum of Comparative Zoology, Cambridge, Mass.); Todd and Carriker, Ann. Carnegie Mus., **14**, p. 494, 1921—Santa Marta region of Colombia (La Concepción, San Antonio, San Francisco, San Miguel, Las Taguas, Las Nubes, Jordan, Onaca, Cincinnati, Don Diego, Las Vegas; crit., habits); Hellmayr, Arch. Naturg., **90**, A, Heft 2, p. 178, 1924—Loma Redonda and Galipán, Venezuela (crit.).

*Calliste desmaresti* (not of Gray) Sclater, Monog. Gen. Calliste, p. 59, 1857—part, Caracas, Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—San Esteban, Carabobo; Salvin and Godman, Ibis, 1880, p. 120—Guallabal and Minca, Colombia; Sclater, Cat. Bds. Brit. Mus., **11**, p. 118, 1886—part, spec. b, e, j, San Esteban, Venezuela, and Minca.

*Calospiza desmaresti* Bangs, Proc. Biol. Soc. Wash., **12**, p. 141, 1898—"Santa Marta"; idem, l.c., pp. 159, 179, 1898—Pueblo Viejo and Palomina, Colombia; Allen, Bull. Amer. Mus. N. H., **13**, p. 169, 1900—Bonda, Agua Dulce, Onaca, Cacagualito, and Valparaiso, Colombia; Hellmayr, Nov. Zool., **13**, p. 14, 1906—part, Las Estanques, near Mérida; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1039, 1912—part, Venezuela ("Puerto Cabello," Las Estanques) and Colombia (Onaca, Valparaiso, Las Nubes, "Santa Marta").

*Tanagra desmaresti* Hellmayr and Seilern, Arch. Naturg., **78**, A, Heft 5, p. 58, 1912—San Esteban, Las Quiguas, Cumbre Chiquita, and Cumbre de Valencia, Carabobo, Venezuela (descr. of female).

<sup>1</sup> Birds from northeastern Venezuela (San Antonio, Quebrada Secca, etc.) are identical with those from Trinidad.

*Material examined*.—Trinidad: Caparo, 13; Santa Cruz, 3; Aripo (alt. 1,200 feet), 3.—Venezuela: Sucre (San Antonio, Quebrada Secca, etc.), 9.

<sup>2</sup> *Calospiza gyrola toddi* (Bangs and Penard): Similar to *C. g. viridissima*, but rufous of head paler; under parts brighter, less bluish green (near Scheele's green); bill slightly longer. Wing, 73–77, (female) 71–73; tail, 49–53, (female) 45–50; bill, 10½–12.

While the differences are quite noticeable in series, single specimens cannot always be distinguished. Birds from the Santa Marta region are fairly uniform in their characters, not one of the ten specimens examined having the head so dark maroon or the body plumage so bluish green as typical *viridissima*. Specimens from the Venezuelan coast ranges (Caracas district and Carabobo) show more variation. The majority agree more or less with Colombian birds, but a few are just as dark-headed and bluish-bellied as any from Trinidad. Two adults from Las Estanques (Mérida) and one from Táchira (San Cristobal) I am unable to separate from those of Santa Marta.

*Additional material examined*.—Colombia: Don Amo, 2; Onaca, 3; Valparaiso, 2; Las Nubes, 3.—Venezuela: San Cristobal, Táchira, 1; Las Estanques, Mérida, 2; San Esteban Valley, Carabobo, 10; Cumbre Chiquita, Carabobo, 1; Cumbre de Valencia, Carabobo, 2; Galipán, Cerro del Avila, 8; Loma Redonda, north of Caracas, 3.



*Range*.—Tropical and lower Subtropical zones of northern Colombia (Santa Marta region) and northwestern Venezuela (from Táchira to the Caracas region).

3: Venezuela (Maracay, Aragua, 3).

\**Calospiza lavinia lavinia* (Cassin).<sup>1</sup> LAVINIA'S TANAGER.

*Calliste lavinia* Cassin, Proc. Acad. Nat. Sci. Phila., 10, p. 178, 1858—"Isthmus of Darien, New Grenada" (type apparently lost, formerly in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 35, 1899); Sclater, Ibis, 1863, p. 451—Isthmus of Darien (ex Cassin).

*Calliste laviniae* Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 142—Rio Truando, Colombia; idem, l.c., 1864, p. 286, pl. 1, fig. 1 (fig. of type); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 271, 1883—part, Rio Truando.

*Calliste emiliae* Dalmas, Bull. Brit. Orn. Cl., 11, p. 35, 1900—San José and El Paillon, near Buenaventura, Chocó, western Colombia (type in coll. of R. de Dalmas, subsequently in Tring Collection, now in the American Museum of Natural History, New York); Sclater, Ibis, 1901, p. 596, pl. 12, fig. 1—San Javier, Rio Cachabí, Prov. Esmeraldas, Ecuador.

*Calospiza lavinia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 46, 1902—part, Isthmus of Darien (Rio Truando); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1039, 1912 (range).

*Calospiza lavinia lavinia* Hellmayr, Rev. Franç. d'Orn., 1, p. 162, 1910—western Colombia, from Darien to Chocó, and northwestern Ecuador (crit.); idem, Proc. Zool. Soc. Lond., 1911, p. 1103—Sipí, Rio Sipí, Colombia.

*Tangara lavinia lavinia* Chapman, Bull. Amer. Mus. N. H., 36, p. 596, 1917—western Colombia (Juntas de Tamaná, Nóvita, Noanamá, Buenaventura, San José, and Buenavista, Nariño); idem, l.c., 55, p. 658, 1926—Ecuador (San Javier).

*Tangara lavinia* Hallinan, Auk, 41, p. 322, 1924—New Culebra, Panama, Canal Zone.

<sup>1</sup> *Calospiza lavinia* appears to be specifically distinct from *C. gyrola*. Races of both groups occur in Costa Rica, Panama, western Colombia, and western Ecuador, though not in exactly the same life-zones. *C. lavinia* and allies are strictly confined to the lower Tropical zone, whereas *C. g. deleticia* and *C. g. bangsi* chiefly inhabit the Subtropics, but, according to Griscom, descend to the Tropical zone after the breeding season.

As pointed out by us in another connection (Rev. Franç. d'Orn., 1, p. 162, 1910), *C. emiliae* is merely *C. l. lavinia* redescribed. This form is characterized by having the upper wing coverts uniform chestnut and a broad light blue stripe along the middle of throat and foreneck, this feature being plainly shown in Cassin's figure of the type of *C. lavinia*.

*Additional material examined*.—Ecuador: San Javier, Prov. Esmeraldas, 1.—Colombia: San José, Chocó, 4; Sipí, Rio Sipí, Chocó, 5; Condoto, Rio Condoto, 2; Juntas, Rio Dagua, 1.

*Range*.—Tropical zone of northwestern Ecuador (San Javier, Prov. Esmeraldas), western Colombia, and eastern Panama (west to the Canal Zone).

1: Colombia (Condoto, Rio Condoto, Chocó, 1).

***Calospiza lavinia dalmasi* Hellmayr.<sup>1</sup> DALMAS'S TANAGER.**

*Calospiza lavinia dalmasi* Hellmayr, Rev. Franç. d'Orn., 1, p. 162, 1910—"Veraguas," western Panama (type in Munich Museum).

*Calospiza cara dalmasi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1039, 1134, 1912—part, "Veragua."

*Tangara lavinia dalmasi* Peters, Bull. Mus. Comp. Zool., 71, p. 341, 1931—Boquete trail, Almirante, western Panama.

*Calliste lavinia* (not of Cassin) Sclater, Ibis, 1876, p. 409—part, "Veragua" (descr. of female); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 271, 1883—part, "Veraguas"; Sclater, Cat. Bds. Brit. Mus., 11, p. 116, 1886—part, spec. g-i, "Veragua."

*Calospiza lavinia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 46, 1902—part, "Veragua."

*Range*.—Tropical zone of western Panama (Chiriquí and Veraguas).

**\**Calospiza lavinia cara* Bangs.<sup>2</sup> CEIBA TANAGER.**

*Calospiza lavinia cara* Bangs, Proc. Biol. Soc. Wash., 18, p. 155, 1905—Ceiba, Honduras (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 400, 1930).

*Calospiza cara* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1039, 1912—Honduras (Ceiba) and Nicaragua (Chontales).

*Tangara lavinia cara* Bangs and Griscom, Proc. New Engl. Zool. Cl., 13, p. 52, 1932—Volcan Miravalles, Costa Rica (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 375, 1932—Santo Tomás, Guatemala.

*Calliste lavinia* (not of Cassin) Sclater, Ibis, 1876, p. 409—part, Costa Rica and Chontales, Nicaragua; Lantz, Trans. Kansas Acad. Sci., 16, p. 223, 1899—Santo Tomás, Guatemala.

*Calliste laviniae* Salvin, Ibis, 1872, p. 315—Chontales, Nicaragua, and Costa Rica; idem and Godman, Biol. Centr.-Amer., Aves, 1, p. 271, 1883—part, Nicaragua (Chontales) and Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 116, 1886—part, spec. a-f, Nicaragua (Chontales) and Costa Rica; Salvin and Godman, Ibis, 1892, p. 326—Matagalpa, Nicaragua.

<sup>1</sup> *Calospiza lavinia dalmasi* Hellmayr: Similar to *C. l. lavinia*, but without any blue on throat and foreneck except a small spot on the chin; upper wing coverts partly olive-green. Wing (male), 69-72; tail, 45-48; bill, 11.

*Material examined*.—Panama: "Veragua" (all collected by E. Arcé), 9.

<sup>2</sup> *Calospiza lavinia cara* Bangs: Similar to *C. l. dalmasi*, but larger, with considerably larger, stouter bill. Wing (male), 72-75; tail, 50-53; bill, 12-13.

*Additional material examined*.—Costa Rica: Carrillo, 2.

*Calospiza lavinia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 46, 1902—part, Nicaragua and Costa Rica; Bangs, Bull. Mus. Comp. Zool., 39, p. 155, 1903—Ceiba, Honduras.

*Tangara lavinia lavinia* Carriker, Ann. Carnegie Mus., 6, p. 860, 1910—eastern Costa Rica (Reventazón, Jiménez, La Vijagua, Carrillo, and Guápiles; habits).

*Tangara lavinia dalmasi* (not of Hellmayr) Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 244, 1932—Eden, Nicaragua.

*Range*.—Tropical zone of eastern Guatemala (Santo Tomás), Honduras (Ceiba), and Nicaragua, and Costa Rica (chiefly on the Caribbean side; one record from Miravalles).

2: Nicaragua (Matagalpa, 2).

\**Calospiza ruficapilla* (Sclater).<sup>1</sup> RUFIOUS-HEADED TANAGER.

*Calliste ruficapilla* Sclater, Contrib. Orn., 1851, Part 2, p. 61, end of April, 1851—"Bogotá," Colombia (type in coll. of P. L. Sclater, now in British Museum); idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 19, 1856—"New Granada."

*Callispiza vitriolina* Cabanis, Mus. Hein., 1, p. 28, Oct., 1851—Colombia (type in Heine Collection, now in Municipal Museum, Halberstadt).

*Calliste vitriolina* Bonaparte, Rev. Mag. Zool., (2), 3, p. 139, 1851—Santa-Fé-de-Bogotá (diag.); Sclater, Proc. Zool. Soc. Lond., 24, p. 252, 1856—"Bogotá" (descr.); idem, Monog. Gen. Calliste, p. 39, pl. 18, 1857—"Bogotá" (monog.); idem, Proc. Zool. Soc. Lond., 28, p. 86, 1860—Perucho and Puellaro, Ecuador; idem, Cat. Coll. Amer. Bds., p. 66, 1862—Perucho (Ecuador) and "Bogotá"; Wyatt, Ibis, 1871, p. 325—Ocaña and Bucaramanga, Santander, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 498—Medellin and Concordia, Antioquia, Colombia; Berlepsch, Journ. Orn., 32, p. 289, 1884—Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 111, 1886—Colombia ("Bogotá," Medellin, Pasto) and Ecuador ("Baisa," Perucho); Hartert, Nov. Zool., 5, p. 481, 1898—Ibarra, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 15, 1899—La Concepción, Chota Valley, Ecuador; Goodfellow, Ibis, 1901, p. 461—around Popayán, Colombia, and western Ecuador (Gualea, Nono, Intag, Chota Valley).

*Calospiza vitriolina* Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 307, 1899—Ibagüé, Colombia; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1042, 1912—Colombia ("Bogotá," Ocaña, Bucaramanga, Antioquia, Pasto) and Ecuador ("Baisa," Perucho, Puellaro); Pigué, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Cafetal La Camelia, near Angelópolis, Colombia; Lönnerberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—road to Nanegal, Ecuador.

*Tangara vitriolina* Chapman, Bull. Amer. Mus. N. H., 36, p. 595, 1917—part, Colombia (Peque, Caldas, Cali, San Antonio, Gallera, Popayán, La

<sup>1</sup> Apparently a distinct species, occurring side by side with a form of *C. cayana* (*fulvescens*) on the west slope of the east Colombian Andes (Ocaña, Bucaramanga). Sclater's name *ruficapilla* obviously has priority.

Sierra, La Manuelita, Rio Frio, Salento, Barro Blanco, La Frijolera, Honda, Chicoral, La Candela, La Palma, San Agustín, Andalucía, Aguadita, Fusugasugá, Subia, Tenasuca, El Carmen, and El Alto de la Paz);<sup>1</sup> idem, l.c., 55, p. 658, 1926—Ibarra and Quito region, Ecuador.

*Range*.—Arid and semi-arid regions (from the Tropical to the Temperate zone) of Colombia (west to the eastern Andes) and northwestern Ecuador (south to the Quito region).<sup>2</sup>

15: Colombia (Aguadita, 1; Andalucía, Huila, 1; Los Jambos, 1; Rio Lima, 1; near San Agustín, Huila, 1; "Bogotá," 10).

\**Calospiza cucullata cucullata* (Swainson).<sup>3</sup> HOODED TANAGER.

*Aglaia cucullata* Swainson, Orn. Draw., Part 1, pl. 7, 1834—no locality given, supposedly "Brazil" (type probably in Swainson Collection, now in University Museum, Cambridge, Engl.).

*Calliste cucullata* Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1851—"Brazil" (crit.); Sclater, Contrib. Orn., 1851, p. 63—"Brazil"; idem, Tanag. Cat. Spec., p. 12, 1854—"St. Thomas"; idem, Proc. Zool. Soc. Lond., 24, p. 253, 1856—"Angostura, Venezuela" (descr.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 183, 1856—"Pernambuco" (ex Swainson!) or "St. Thomas" (ex Sclater); Sclater, Monog. Gen. Calliste, p. 45, pl. 20, 1857—"Santo Thomas [=Angostura], Venezuela" (monog.); idem, Cat. Bds. Brit. Mus., 11, p. 113, 1886—"Venezuela"; Cory, Auk, 5, p. 157, 1888—Grenada; idem, Bds. W. Ind., p. 289, 1889—Grenada; idem, Cat. Bds. W. Ind., pp. 114, 151, 1892—Grenada; Nicoll, Ibis, 1904, p. 566—Grand Étang, Grenada.

*Calospiza cucullata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 52, 1902—"Venezuela (Angostura)" and Grenada (monog.); Clark, Proc. Bost. Soc. N. H., 32, pp. 289, 306, 1905—Grenada (habits, nest, and eggs); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1041, 1912—Grenada.

*Calliste versicolor* (not of Lawrence, 1878) Lawrence, Proc. U. S. Nat. Mus., 1, p. 269, 1878—Grenada; idem, l.c., 1, p. 487, 1879—part, Grenada; Wells, l.c., 9, p. 613, 1886—Grenada (habits, nest, and eggs); Sclater, Cat. Bds. Brit. Mus., 11, p. 113, 1886—part, spec. b-e, Grenada and "Venezuela."

*Range*.—Island of Grenada, Lesser Antilles.<sup>4</sup>

7: Lesser Antilles (Grenada, 7).

<sup>1</sup> I suspect that the two specimens from east of the Andes (Villavicencio and Barrigon) stated to have "the crown paler and to be browner both above and below" will prove to be females of *C. cayana fulvescens*.

<sup>2</sup> Birds from Colombia and Ecuador agree. The locality "Baisa" [= Baeza] resting on one of Buckley's skins is unquestionably erroneous.

*Additional material examined*.—Colombia: "Bogotá," 10; Bucaramanga, 8; Concordia, Antioquia, 1.—Ecuador: Ibarra, 5; Chota Valley, near Quito, 8; Nanegal, 4; unspecified, 3.

<sup>3</sup> Nearly related to *C. cayana* and possibly conspecific.

<sup>4</sup> The presumed occurrence in Venezuela (Angostura) was clearly a mistake.



\**Calospiza cucullata versicolor* (Lawrence).<sup>1</sup> ST. VINCENT Tanager.

*Calliste versicolor* Lawrence, Ann. N. Y. Acad. Sci., 1, p. 153, June, 1878—St. Vincent (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 1, p. 190, 1878—St. Vincent; idem, l.c., 1, p. 269, 1878—part, St. Vincent; idem, l.c., 1, p. 487, 1879—part, St. Vincent; Cory, Ibis, 1886, p. 473—St. Vincent (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 113, 1886—part, spec. a, St. Vincent; Cory, Bds. W. Ind., p. 82, 1889—St. Vincent; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 53, 1902—St. Vincent (monog.); Clark, Proc. Bost. Soc. N. H., 32, p. 288, 1905—St. Vincent (habits, song).

*Tangara versicolor* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 543, 1928—St. Vincent (nest).

*Calliste cucullata* (not *Aglaiacucullata* Swainson) Cory, Auk, 3, p. 195, 1886—St. Vincent (descr.).

Range.—Island of St. Vincent, Lesser Antilles.

7: Lesser Antilles (St. Vincent, 7).

*Calospiza arnaulti* (Berlioz).<sup>2</sup> ARNAULT'S Tanager.

<sup>1</sup> *Calospiza cucullata versicolor* (Lawrence) differs from its ally by greater dimensions, much larger bill, less bluish under parts, and much lighter rufous (Sanford's brown to Burnt Sienna instead of deep chestnut brown) pileum. It is a very well-marked race.

Eleven additional specimens from St. Vincent have been compared with twenty from Grenada.

<sup>2</sup> *Calospiza arnaulti* (Berlioz): Not unlike *C. castanonota* on the upper parts, but hind neck and mantle decidedly paler than the crown, about ochraceous tawny, with broad, brass green apical margins to the feathers (instead of shining amber brown like the crown without any or but slightly suggested greenish edges); rump and tail coverts ochraceous buff as in *C. cayana flava*, but with long silvery bluish tips (in *castanonota* paler ochraceous buff tipped with silvery green); smaller wing coverts, instead of buff with silvery green tips, decidedly bluish, paler and more glossy than in *C. c. flava*; greater wing coverts deep greenish blue on the outer webs (like *flava*); sides of head black, the lower and posterior auriculars tipped with amber brown, the coloration being thus intermediate between *castanonota* and *flava*; throat, foreneck, and median portion of the abdomen down to the anal region sooty black, the feathers terminally broadly edged with "dusky green blue," these edges laterally as well as on the throat brighter, nearer "dark gobelin blue"; middle of lower abdomen suffused with dingy gray; sides of breast and abdomen ochraceous buff as in *C. c. flava*, but the ground color partly concealed by shining greenish tips; under tail coverts and tibial feathers ochraceous tawny; axillaries and under wing coverts sooty gray with dingy whitish edges (like *castanonota*, but darker); bill short and stout. Wing (adult male), 80; tail, 60; bill, 10.

While similar to *C. castanonota* in size and form, *C. arnaulti* differs from that species by partly black auriculars; paler back with silvery green tips; bluish smaller upper wing coverts; the broad blackish, bluish green-edged median zone of the under parts; deep ochraceous tawny, greenish-tipped sides of the body, etc. By the dark-colored stripe underneath *C. arnaulti* approaches *C. c. huberi*, but this area is more extensive with the blue tips wider and more intense. Otherwise, it is, however, very different, *huberi* resembling *C. c. cayana* on the upper parts and having uniform black sides of the head.

*C. arnaulti* is known from a single cage-bird of uncertain origin. The type is in perfect plumage and is said to have undergone no change while kept in con-

*Tangara arnaulti* Berlioz, L'Oiseau, 8, No. 3, p. 95, March, 1927—South America, precise locality unknown (type in Paris Museum examined).

*Range*.—South America (locality unknown).

\**Calospiza castanonota* (Sclater). CHESTNUT-BACKED TANAGER.

*Calliste castanonota* Sclater, Contrib. Orn., 1851, Part 2, p. 63, end of April, 1851—Brazil (part, descr. of adult male in coll. of H. E. Strickland; type now in University Museum, Cambridge, Engl.); idem, Tan. Cat. Spec., p. 12, 1854—southern Brazil; Salvin, Cat. Strickl. Coll., p. 185, 1882.<sup>1</sup>

*Callispiza preciosa* Cabanis, Mus. Hein., 1, p. 27, Oct., 1851—Rio Grande [do Sul], Brazil (types in Heine Collection, now in Municipal Museum, Halberstadt).

*Tanagra gyrola* (not *Fringilla gyrola* Linnaeus) Wied, Beitr. Naturg. Bras., 3, (1), p. 471, 1830—part, descr. of male, Rio Grande do Sul.

*Aglaia cayana* (not *Tanagra cayana* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Corrientes, Argentina.

*Tanagra cayana* d'Orbigny, Voy. Amér. Mérid., Ois., p. 272, 1839—Corrientes City (descr. mala).

*Calliste preciosa* Burmeister, Syst. Uebers. Th. Bras., 3, p. 182, 1856 (range imaginary).

*Calliste pretiosa* Sclater, Proc. Zool. Soc. Lond., 24, p. 254, 1856—southern Brazil (Rio Grande do Sul and Curytiba), Paraguay, Uruguay (Montevideo), and Corrientes; idem, Monog. Gen. Calliste, p. 49, pl. 22, 1857 (monog.); idem, Cat. Coll. Amer. Bds., p. 66, 1862—Rio Grande do Sul; Pelzeln, Orn. Bras., 3, p. 207, 1870—São Paulo (Capivari, Parnapitanga) and Paraná (Curytiba) (spec. in Vienna Museum examined); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 118, 1885—Rio Grande do Sul (Taquara, Arroio Grande); Sclater, Cat. Bds. Brit. Mus., 11, p. 114, 1886—southern Brazil (Rio Grande do Sul, Curytiba) and Paraguay; Holland, Ibis, 1896, p. 315—Est. Santa Elena, Entre Ríos; Sclater, Bull. Brit. Orn. Cl., 8, p. xxiv, 1898—Santa Elena; Ihering, Rev. Mus. Paul., 3, p. 148, 1898—São Paulo; idem, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Rio Grande do Sul (Mundo Novo, Pelotas).

*Calospiza pretiosa* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—Rio Grande do Sul (São João do Monte Negro and Pelotas) (range); Chubb, Ibis, 1910, p. 624—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 375, 1910—Santa Elena, Entre Ríos; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 486, 499, 1912—Vera Guarany, Paraná; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1042, 1912—southern Brazil (Paraná, Rio Grande do Sul, "Matto Grosso") and Paraguay; Bertoni, Faun. Parag., p. 62, 1914—Alto Paraná, Paraguay.

finement. Whether it represents a distinct species or is merely the result of hybridization, as is suggested by the intermediacy of its characters, remains to be determined by further material.

<sup>1</sup> Though not designated as such, the specimen in the Strickland Collection is doubtless the type of Sclater's *C. castanonota*, based on the adult male. Sclater's name has unquestionable priority, unless we regard the issue of the advance sheets of the "Museum Heineanum" as signifying actual publication.

*Tangara pretiosa* Dabbene, Bol. Soc. Physis, 1, p. 250, 1913—Misiones, Argentina; Bertoni, El Hornero, 1, p. 189, 1918—Alto Paraná, Paraguay; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Rocha, Cerro Largo); Hellmayr, Nov. Zool., 30, p. 238, 1923—Corrientes (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 192, 1926—Paraná (Guarapuava, Invernadinha, Cará Pintada, Vermelho); Pereyra, El Hornero, 4, p. 33, 1927—Misiones.

*Range*.—Southeastern Brazil, from southwestern São Paulo (Capivari, Parnapitanga) to Rio Grande do Sul; Uruguay; Paraguay; northeastern Argentina (Corrientes, Entre Ríos, and Misiones).<sup>1</sup>

2: Brazil (Joinville, Santa Catharina, 1); Paraguay (Villa Rica, 1).

\**Calospiza peruviana* (Desmarest). BLACK-BACKED TANAGER.

*Tanagra peruviana* Desmarest, Hist. Nat. Tangaras, livr. 9, text to pl. 11, 1806—"rapporté du Pérou par Dombey"<sup>2</sup> (type in Paris Museum); Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 419, 1819 (ex Desmarest).

*A[glai]a melanotus* Swainson, Orn. Draw., Part 3, pl. 31, 1836 (=adult male).

*A[glai]a melanotis* Swainson, Orn. Draw., Part 4, pl. 43, circa 1837 (=adult female).

*Tanagra gyrola* (not *Fringilla gyrola* Linnaeus) Wied, Beitr. Naturg. Bras., 3, (1), p. 471, 1830—part, descr. of female, southern Brazil.

*Calliste castanonota* Sclater, Contrib. Orn., 1851, Part 2, p. 63—part, descr. of female (ex Wied).

*Calliste peruviana* Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1851—"Peru" (diag.).

*Calliste melanota* Burmeister, Syst. Uebers. Th. Bras., 3, p. 182, 1856—"in middle Brazil, particularly north of Bahia and in the interior on the Amazon"(!).

*Calliste melanonota* Sclater, Proc. Zool. Soc. Lond., 24, p. 254, 1856—southeastern Brazil (descr.); idem, Monog. Gen. Calliste, p. 51, pl. 23 (male, female), 1857 (monog.); idem, Cat. Coll. Amer. Bds., p. 67, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 207, 1870—Rio de Janeiro (Sapitiba) and São Paulo (Mattodentro and Rio Paraná) (spec. in Vienna Museum examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 115, 1886—southern Brazil (São

<sup>1</sup> Birds from southwestern São Paulo (Capivari), Paraná, and Rio Grande do Sul agree well together. A single apparently not quite mature male from Paraguay has a decidedly shorter tail (56 mm.) and much more bluish under parts than any from Brazil.

There is no reliable record from "Matto Grosso," included in the range of this tanager by Berlepsch.

*Additional material examined*.—Paraguay: Bernalcué (near Asunción), 1.—Brazil: Capivari, São Paulo, 2; Fazenda Monte Alegre, Paraná, 1; Curytiba, Paraná, 6; Jaguaraiaba, Paraná, 2; São Lourenço, Rio Grande do Sul, 3; Taquara do Mundo Novo, Rio Grande do Sul, 1; Rio Grande do Sul, 6.

<sup>2</sup> From a remark by A. de Saint-Hilaire (Voyage dans le district des Diamans, 1, p. 255, note 1, 1833) it would appear that Dombey traveled in southeastern Brazil, near Rio de Janeiro, which may thus be designated as an appropriate type locality in place of the obviously erroneous habitat "Peru" given by Desmarest.



Paulo; "Rio Claro, Goyáz;" Santa Catharina; "Pelotas, Rio Grande do Sul"); Ihering, *Rev. Mus. Paul.*, 3, p. 148, 1899—Iguapé, São Paulo.

*Calospiza melanonota* Ihering, *Cat. Faun. Braz.*, 1, p. 354, 1907—São Paulo (Ypiranga, Iguapé, Itararé).

*Calospiza peruviana* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1042, 1134, 1912—southeastern Brazil in states of Rio (Sapitiba), São Paulo (Mattodentro, Iguapé, Ypiranga, Santos, Itararé), Santa Catharina, and "Goyáz (Rio Claro)."

*Tangara peruviana* Dabbene, *Bol. Soc. Physis*, 1, p. 362, 1914—Misiones and Buenos Aires (accidental).

*Range*.—Southeastern Brazil, from Rio de Janeiro to Santa Catharina; accidental in northeastern Argentina (Misiones and Buenos Aires, fide R. Dabbene).<sup>1</sup>

8: Brazil (Joinville, Santa Catharina, 8).

\**Calospiza cayana cayana* (Linnaeus). RUFIOUS-CROWNED TANAGER.

*Tanagra cayana* Linnaeus, *Syst. Nat.*, 12th ed., 1, p. 315, 1766—based on "Le Tangara verd, de Cayenne" Brisson, *Orn.*, 3, p. 21, pl. 4, fig. 3, 1760; Cayenne (type in coll. of M. Réaumur).

<sup>1</sup> Birds from Santa Catharina agree with those from Rio de Janeiro and São Paulo in coloration, but are slightly larger (wing of males, 76–82 against 74–79; of females, 75–77 against 72–76), the dimensions being about the same as in *C. castanonota*. The occurrence of *C. peruviana* in Rio Grande do Sul is denied by Ihering (*Ann. Est. Rio Grande do Sul*, 16, p. 119, 1899), the female so identified in the British Museum being doubtless referable to *C. castanonota*. The locality "Rio Claro" refers, of course, to the place of that name in São Paulo, and not to the river in Goyáz, where no representative of this group is found.

The interrelationship of *C. peruviana* and *C. castanonota* appears to require careful investigation. As is well known, the only difference separating the males of the two "species" lies in the coloration of the mantle, which is black in the former, shining amber brown like the pileum in the latter. Between the females I have not succeeded in finding any constant character of distinction. The rufous-backed form (*castanonota*) is generally slightly larger, but, as stated above, individuals of the black-mantled type from Santa Catharina are fully as long-winged. Now as to the range: *C. peruviana* is the only form found in Rio de Janeiro, while *C. castanonota* is the sole representative in Rio Grande do Sul, Uruguay, and Paraguay. Santa Catharina is almost exclusively occupied by the black-backed variety (*peruviana*); from Paraná only the rufous-backed form has been recorded; in São Paulo the first-named (*peruviana*) is widely distributed, whereas the other one with rufous mantle has been met with only in the extreme southwestern corner of the state. Considering the close resemblance of the birds, I cannot believe that two species are involved, and would suggest that it might be a case of dimorphism in the male sex, which to a certain extent is geographical, in so far as one of the two color-types alone occurs at the extremities of the distributional area, the black-backed in the north, the rufous-backed in the south, while the intervening territory is tenanted by mixed populations. Comprehensive material as well as studies in the field are needed to bring the problem to satisfactory solution.

*Additional material examined*.—Rio de Janeiro: Sapitiba, 5.—São Paulo: Itatiba, 1; Ypiranga, 1; Mattodentro, 1; Santos, 1; Rio Paraná, 1.—Santa Catharina: Joinville, 1; Blumenau, 2; Ararangua, 10.



- Fringilla autumnalis* Linnaeus, Syst. Nat., 12th ed., 1, p. 320, 1766—Surinam (location of type not stated).
- Tanagra mitrata* P. L. S. Müller, Natursyst., Suppl., p. 159, 1776—based on "Tangara à tête rousse, de Cayenne"; Daubenton, Pl. Enl., pl. 290, fig. 7.
- Calospiza cayana* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 670, "1848" [=1849]—British Guiana.
- Calliste chrysonota* Sclater, Contrib. Orn., 1850, pp. 50–58,<sup>1</sup> pl. 51—Cayenne (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 1851, p. 62—Cayenne.
- Calliste cayana* Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1850—Cayenne (diag.); Sclater, Proc. Zool. Soc. Lond., 24, p. 19, 1856—Cayenne and British Guiana; idem, l.c., p. 252, 1856—Cayenne (monog.); Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Sclater, Monog. Gen. Calliste, p. 41, pl. 19, 1857—part, British and French Guiana, and "Trinidad" (monog.); idem, Cat. Coll. Amer. Bds., p. 66, 1862—"Trinidad" and Cayenne; Pelzeln, Orn. Bras., 3, p. 206, 1870—Forte do São Joaquim (Rio Branco) and Santarém, Brazil (spec. examined); (?) Salvin, Ibis, 1885, p. 209—British Guiana (Merumé Mountains and Roraima); Sclater, Cat. Bds. Brit. Mus., 11, p. 111, 1886—part, spec. a–q, (?)z–c', Cayenne, (?)British Guiana (Merumé Mountains, Roraima), "Rio Negro," "Trinidad," and eastern Peru; Riker and Chapman, Auk, 7, p. 267, 1890—Diamantina, near Santarém, Brazil; Berlepsch and Hartert, Nov. Zool., 9, p. 19, 1902—Altagracia, Ciudad Bolívar, and Quiribana de Caicara, Orinoco River, Venezuela (nest and eggs); Sneath, Journ. Orn., 55, p. 293, 1907—part, Monte Alegre, Brazil (spec. examined); (?)Delacour, Ibis, 1923, p. 149—Calabozo and Camaguan, Venezuela.
- Callispiza cayana* Cabanis, Mus. Hein., 1, p. 27, 1851—Cayenne and "Venezuela."
- Calospiza cayana* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—part, Santarém; Berlepsch, Nov. Zool., 15, p. 414, 1908—French Guiana (Cayenne, Ile le Père); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1041, 1912—part, Cayenne, Surinam, (?)British Guiana (Merumé Mountains, Roraima), Venezuela (Altagracia, Ciudad Bolívar, Quiribana de Caicara, Rio Orinoco), (?)Peru (Moyobamba), and Brazil (Rio Negro; Rio Branco; Santarém; Humaytá, Rio Madeira); Sneath, Bol. Mus. Goeldi, 8, p. 446, 1914—Monte Alegre, Brazil (spec. examined).
- Calospiza cayana cayana* Hellmayr, Nov. Zool., 14, p. 347, 1907—Humaytá, Rio Madeira (females); idem, l.c., 17, p. 273, 1910—Humaytá.
- Tangara cayana cayana* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 126, 1912—part, Guianas, Orinoco Valley, and northern

<sup>1</sup> The copy of Jardine's "Contributions to Ornithology" in the Bavarian State Library at Munich contains two sets of pages 50–58. Both have the description of a *Calliste* which reads the same except that in the second set of pages 50–58 the last three paragraphs are omitted. The Latin name is *chrysonota* on the first, *luteola* on the second set of pages 50–58. Whether the "*luteola*" page was originally issued and subsequently replaced by the more complete account of the species bearing *C. chrysonota* as head-line, or whether they came out simultaneously, I have no means of ascertaining. The plate, being inscribed "*C. chrysonota*," seems to indicate that this was the specific name finally chosen by Sclater.

Brazil; Cherríe, Sci. Bull., Mus. Brookl. Inst., 2, p. 172, 1916—Orinoco River (from Ciudad Bolívar to above the falls of Maipures) and Maripa, Caura Valley, Venezuela.

*Tangara cayana* Chubb, Bds. Brit. Guiana, 2, p. 508, 1921—British Guiana (Ituribisci River, Abary River, Ireng River, (?)Roraima, (?)Upper Takutú Mountains, (?)Merumé Mountains); (?)Chapman, Bull. Amer. Mus. N. H., 63, p. 131, 1931—Mount Roraima (Rio Weiling, Paulo, Arabupu, and Philipp Camp).

(?)*Calliste cyanolaima* Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1851—"Peru" (location of type not stated).

(?)*Calliste cyanolaema* Sclater, Proc. Zool. Soc. Lond., 24, pp. 19, 252, 1856—Rio Negro and "Trinidad" (monog.); idem, Monog. Gen. Calliste, p. 43, 1857—Rio Negro (monog.); idem, Cat. Coll. Amer. Bds., p. 66, 1862—Rio Negro; Taczanowski, Orn. Pér., 2, p. 463, 1884—Moyobamba, Peru.

*Range*.—French, Dutch, and British Guiana; southern Venezuela (Orinoco and Caura valleys); northern Brazil (Monte Alegre; Rio Branco; Santarém; Humaytá, Rio Madeira); (?)eastern Peru.<sup>1</sup>

11: French Guiana (Cayenne, 3); British Guiana (Georgetown, 2); Brazil (Bõa Vista, Rio Branco, 5; Serra da Lua, Rio Branco, 1).

<sup>1</sup>Birds from Monte Alegre (north bank of lower Amazon) and Santarém (south bank) agree with a series from French Guiana, and others from the lowlands of British Guiana (Georgetown; Annai) as well as those from the Orinoco basin are not separable either, being the same size and of identical coloration. There is considerable doubt as to the applicability of the name *cyanolaima* Bonaparte. Though the describer speaks of Peruvian specimens, Sclater claims that the birds, one of which he obtained from Parzudaki for his own collection, came from the "Rio Negro." If this statement is correct, *cyanolaima* can hardly be different from *cayana*, since series from the Rio Branco (an affluent of the Rio Negro) and the middle stretches of the Orinoco are precisely like topotypical Cayenne skins. The bluish tinge on throat and foreneck, in extent and intensity, is extremely variable in specimens from the same locality, but according to Sclater it is brighter in Peruvian birds, which are, furthermore, stated to differ by larger size. Taczanowski's measurements for a male from Moyobamba (wing, 75; tail, 56) suggest, indeed, the existence of a slightly larger race, and, considering the variability of the bluish tinge on the throat, *cyanolaima* may yet turn out to be an earlier name for *C. c. fulvescens*, a question that can only be determined by the examination of an adequate series of Peruvian skins. We have not seen any material from the mountains of British Guiana. The late Count Berlepsch (in MS.), however, quotes unusually large dimensions for three males from Roraima and the Merumé Mountains: wing, 78–80; tail, 57–59. Although these figures correspond to the maximum of *C. c. fulvescens*, I can hardly believe that the birds of Roraima really pertain to this form, and careful comparison might disclose certain differences in coloration.

As to the locality "Trinidad"—based on trade-skins—there is no authentic record of this species from that island.

*Additional material examined*.—French Guiana: Cayenne, 8; Ile le Père, 2.—Dutch Guiana: Paramaribo, 2.—British Guiana: Annai, 1 (adult male: wing, 72; tail, 53).—Venezuela: Caura Valley, 2 (wing, 72; tail, 50½); Ciudad Bolívar, Orinoco, 3; Altigracia, 1; Caicara, 1; Maipures, 1.—Brazil: Forte do São Joaquim, 8; Monte Alegre, 4; Santarém, 1 (adult male: wing, 72; tail, 52).

\**Calospiza cayana fulvescens* (Todd).<sup>1</sup> GREATER RUFOUS-CROWNED TANAGER.

*Tangara cayana fulvescens* Todd, Proc. Biol. Soc. Wash., 35, p. 92, July, 1922—Palmar, Boyacá, eastern Andes of Colombia (type in Carnegie Museum).

*Calliste cayana* (not *Tanagra cayana* Linnaeus) Sclater, Monog. Gen. Calliste, p. 41, 1857—part, Venezuela (Caracas); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida, Venezuela; Wyatt, Ibis, 1871, p. 325—Ocaña and Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 111, 1886—part, spec. r, s, u-y, Colombia ("Bogotá," Ocaña) and Venezuela (Puerto Cabello); Phelps, Auk, 14, p. 364, 1897—San Antonio, Bermúdez, Venezuela.

*Calospiza cayana* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—part, Mérida, Venezuela; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1041, 1912—part, Venezuela (Puerto Cabello, Mérida) and Colombia ("Bogotá," Ocaña).

*Tangara cayana cayana* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 126, 1912—part, Venezuela (coast mountains from Cumaná to Puerto Cabello) and Colombia ("Bogotá").

*Range*.—Tropical zone of eastern Colombia (west and east slope of eastern Andes) and northern Venezuela (from Táchira and Mérida along the coast ranges east to the vicinity of Cumaná).

14: Venezuela (Colón, Táchira, 5; Valle, Mérida, 1; Rio Chamá, Mérida, 2; Valera, Zulia, 1; Maracay, Aragua, 5).

*Calospiza cayana huberi* Hellmayr.<sup>2</sup> HUBER'S TANAGER.

<sup>1</sup> *Calospiza cayana fulvescens* (Todd): Similar to *C. c. cayana*, but somewhat larger and paler, the coloration throughout, especially above, being more silvery and less buffy. Wing (males), 74-78; tail, 54-58.

Birds from western Venezuela (Táchira to Zulia) are absolutely identical with "Bogotá" skins, which may reasonably be taken as representing *fulvescens*. The inhabitants of the north coast districts (Aragua and Cumaná region), while on average smaller, seem likewise referable to this form.

*Additional material examined*.—Colombia: "Bogotá," 4.—Venezuela, Mérida: El Valle, 3; Mérida, 12; Bermúdez (Quebrada Secca and Campos Alegre, inland of Cumaná), 9.

<sup>2</sup> *Calospiza cayana huberi* Hellmayr: Nearest to *C. c. flava*, but adult male with the median stripe of the under parts much duller, slaty blackish, the feathers of the foreneck conspicuously, those in the middle of the breast and abdomen rather indistinctly tipped with indigo-blue; sides, flanks, and under tail coverts much lighter, pale tawny olive rather than ochraceous buff (exactly as in *C. c. cayana*); axillaries and under wing coverts smoke gray edged with bluish green (buffy white in *cayana*, deep black in *flava*); back paler, more like *cayana*; the upper tail coverts more bluish. Female similar to that of *C. c. flava*, but wings and upper tail coverts much more bluish. Wing, 71-72; tail, 50-53; bill, 11-12.

This form is more or less intermediate between *C. c. cayana* and *C. c. flava*. The male differs from the former chiefly in lacking the tawny cap, and in having the throat as well as the middle of the under parts blackish, but resembles it in the general coloration of the dorsal surface and the lateral portions of the lower parts. The pale gray, bluish green-edged under wing coverts serve to distinguish *C. c. huberi* from both of its allies.

*Material examined*.—Brazil, Marajó: Rio Arary, 3.

*Calospiza huberi* Hellmayr, Bull. Brit. Orn. Cl., 27, p. 34, Dec. 31, 1910—Cachoeira, Rio Arary, Marajó Island, Brazil (type in Munich Museum); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1041, 1134, 1912—Marajó; Sneath, Bol. Mus. Goeldi, 8, p. 446, 1914—Rio Arary, Marajó.

*Tangara cayana huberi* Hellmayr, Abhandl. Bayr. Akad. Wiss., Math.-phys. Kl., 26, No. 2, p. 125, 1912—Cachoeira, Marajó (crit.).

*Calliste cayana* (not *Tanagra cayana* Linnaeus) Sneath, Journ. Orn., 55, p. 293, 1907—part, Marajó.

*Range*.—Island of Marajó, in State of Pará, northeastern Brazil.

\**Calospiza cayana flava* (Gmelin). YELLOW TANAGER.

*Tanagra flava* Gmelin, Syst. Nat., 1, (2), p. 896, 1789—based on "Le Tangara jaune du Brésil" Brisson (Orn., 3, p. 39), which in its turn rests exclusively on "Guira-pera" Marcgrave, Hist. Nat. Bras., p. 212, northeastern Brazil; Ceará suggested as type locality by Hellmayr (Field Mus. Nat. Hist., Zool. Ser., 12, p. 279, 1929); Wied, Beitr. Naturg. Bras., 3, (1), p. 467, 1830—Rio Mucuri, southern Bahia.

*Aglaja flava* Swainson, Zool. Illust., (n.s.), 1, Part 7, pl. 31, 1830—"in several parts of Brazil, particularly round Pernambuco."

*Calliste flava* Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1851—part; Sclater, Contrib. Orn., 1851, p. 61—part; idem, Proc. Zool. Soc. Lond., 24, p. 253, 1856—part, Brazil (Pernambuco); Burmeister, Syst. Uebers. Th. Bras., 3, p. 181, 1856—part, Bahia; Sclater, Monog. Gen. Calliste, p. 47, pl. 21, 1857—part, Brazil (Rio Murucú, Bahia); Forbes, Ibis, 1881, p. 332—Recife to Garanhuns, Pernambuco; Sclater, Cat. Bds. Brit. Mus., 11, p. 113, 1886—part, spec. a-h, Pernambuco and Bahia; Nicoll, Ibis, 1904, p. 40—Bahia and Itaparica, Bahia; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—Pernambuco (Recife) and Bahia (Bellevue near Bahia; Barra; above Barroão, Rio Preto).

*Calospiza flava* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—part, Pernambuco and Bahia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1040, 1912—Pernambuco to Bahia; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 41, 1926—Ceará.

*Calospiza flava flava* Hellmayr, Nov. Zool., 15, p. 27, 1908—Bahia to Pernambuco (crit.); Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia.

*Calospiza* (*Calliste*) *flava* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 186, 1925—northeastern Brazil.

*Tangara cayana flava* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 279, 1929—Maranhão (Codó, Cocos; Barra do Corda, Ponto; Grajahú; São Francisco; Fazenda Inhuma, Alto Parnahyba; Tranqueira), Goyás (Philadelphia), and Ceará (Varzea Formosa and Serra de Baturité) (crit.).

*Range*.—Northeastern Brazil, from the southern boundary of the State of Bahia (Rio Mucuri) north through Pernambuco to Ceará



and west to Maranhão and the adjacent districts of extreme northern Goyáz (Philadelphia, Rio Tocantins).<sup>1</sup>

30: Brazil, Bahia (Bahia, 1; Santo Amaro, 2; São Marcello, Rio Preto, 2); Ceará (Serra de Baturité, 7; Varzea Formosa, 2); Maranhão (Codó, Cocos, 1; Barra do Corda, Ponto, 1; Grajahú, 4; São Francisco, 1; Fazenda Inhuma, Alto Parnahyba, 1; Tranqueira, 4); Goyáz (Philadelphia, 4).

**\**Calospiza cayana chloroptera* (Vieillot).<sup>2</sup> SOUTHERN YELLOW Tanager.**

*Tanagra chloroptera* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 407, 1819—“Brésil” (type, collected by A. de Saint-Hilaire in southern Brazil, São Paulo or Paraná, examined in Paris Museum).

*Tanagra formosa* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 407, 1819—based on “Lindo bello” Azara, No. 96; Paraguay.

*Calliste flava* (not *Tanagra flava* Gmelin) Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1851—part, Paraguay; Sclater, Contrib. Orn., 1851, p. 61—part; idem, Proc. Zool. Soc. Lond., 24, p. 253, 1856—part, Paraguay; Burmeister, Syst. Uebers. Th. Bras., 3, p. 181, 1856—part, Paraguay and “Novo Friburgo”; Sclater, Monog. Gen. Calliste, p. 47, 1857—part, Paraguay, “Rio,” and “Novo Friburgo”; Pelzeln, Orn. Bras., 3, p. 207, 1870—part, São Paulo (Ypanema, Itararé, Porto do Piahy, Paciencia, Rio Paraná); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 432—Minas Geraes (Lagõa Santa, Sete Lagõas, Curvelo, Uberaba) and São Paulo (Hytú, São Bento de Araraquara); Sclater, Cat. Bds. Brit. Mus., 11, p. 113, 1886—part, spec. i-m, “Novo Friburgo,” Rio Claro (“Goyáz”), Ypanema, São Paulo, and “Pelotas, Rio Grande do Sul”; Ihering, Rev.

<sup>1</sup> There is some variation in size observable in series from various parts of the range, birds from Ceará being on average larger (wing of males, 75–80 against 70–76; tail, 56–60 against 50–57). In coloration, specimens from the area outlined above agree well together, even those from the lower Tocantins (Philadelphia).

*Additional material examined.*—Bahia: trade-skins, 20; Bellevue (near Bahia City), 2; Barra, 1; above Barrocoão, Rio Preto, 1.—Pernambuco: Beberibé (near Recife), 1; São Lourenço, 2.

<sup>2</sup> *Calospiza cayana chloroptera* (Vieillot): Very similar to *C. c. flava*, but perhaps separable by slightly paler coloration with the ochraceous tinge on the pileum, particularly anteriorly, more pronounced in the male sex. Wing (adult male), 74–78; tail, 52–59.

When compared with others from Bahia and Pernambuco, specimens from São Paulo and Minas Geraes average slightly larger, but this seems of little consequence in view of the fact that those from Ceará are even larger. The type of *C. chloroptera* and an adult male from Paraguay (Sapucay) are absolutely identical with São Paulo birds. Specimens from Minas Geraes somewhat tend toward *C. c. sincipitalis* by slightly paler upper parts and deeper ochraceous forehead. The advisability of maintaining *chloroptera* is open to doubt.

*Additional material examined.*—Paraguay: Sapucay, 1.—São Paulo: Campinas, 1; Victoria, 3; Ypanema, 5; Itararé, 1; Faxinas, 2; Paciencia, 1; Porto do Piahy, 1; Rio Paraná, 1.—Minas Geraes: Agua Suja, near Bagagem, 3.

<sup>3</sup> Probably error for Lagõa Santa, Minas Geraes (cf. Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 432).

Mus. Paul., 3, p. 148, 1899—São Paulo; idem, l.c., 4, p. 153, 1900—"Nova Friburgo," Rio.

*Calospiza flava* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—part, São Paulo (Jundiáhy, Itatiba, Itararé, Jaboticabal); Bertoni, Faun. Parag., p. 62, 1914—Paraguay.

*Calospiza flava chloroptera* Hellmayr, Nov. Zool., 15, p. 27, 1908—southeastern Brazil (State of São Paulo) and Paraguay (crit.); Chubb, Ibis, 1910, p. 625—Sapucay, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1040, 1912—southeastern Brazil (states of "Rio de Janeiro" and São Paulo) and Paraguay.

*Tangara flava chloroptera* Holt, Bull. Amer. Mus. N. H., 57, p. 320, 1928—Serra do Itatiaya, São Paulo, Brazil.

*Calospiza formosa* Ihering, Cat. Faun. Braz., 1, p. 355, 1907—part, Paraguay; Bertoni, Faun. Parag., p. 62, 1914—part, Paraguay.

*Range*.—Southeastern Brazil, in states of Minas Geraes, São Paulo, and Paraná, and Paraguay (Sapucay).<sup>1</sup>

3: Brazil, Minas Geraes (Rio das Velhas, near Lagõa Santa, 3).

\**Calospiza cayana sincipitalis* Berlepsch.<sup>2</sup> TAWNY-FRONTED TANAGER.

*Calospiza formosa sincipitalis* Berlepsch, Ornith., 14, p. 348, Feb., 1907—Leopoldina, Rio Araguaya, Goyáz, Brazil (type in Berlepsch Collection, now in Frankfort Museum, examined); Ihering, Cat. Faun. Braz., 1, p. 355, 1907—Goyáz.

*Calospiza flava sincipitalis* Hellmayr, Nov. Zool., 15, pp. 26, 28, 1908—Goyáz (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1042, 1912 (range).

*Calliste flava* (not *Tanagra flava* Gmelin) Pelzeln, Orn. Bras., 3, p. 207, 1870—part, Goyáz City and José Dias, Goyáz (spec. examined).

*Calospiza flava* Ihering, Cat. Faun. Braz., 1, p. 353, 1907—part, Goyáz.

*Range*.—Central Brazil, in State of Goyáz (José Dias; Veadeiros; Goyáz City; Leopoldina, Rio Araguaya).

1: Brazil (Goyáz, Veadeiros, 1).

\**Calospiza cayana margaritae* (Allen).<sup>3</sup> MARGARITA'S TANAGER.

<sup>1</sup> There is no reliable record from anywhere in the State of Rio de Janeiro, and the locality "Pelotas, Rio Grande do Sul," is unquestionably erroneous.

<sup>2</sup> *Calospiza cayana sincipitalis* Berlepsch: Adult male approaching *C. c. margaritae* in having the feathers of the back and rump slightly tipped with silvery greenish, but with only the forehead (instead of the whole crown) light tawny, this color passing gradually into the buff of the dorsal plumage; female apparently not distinguishable from that of *margaritae*. Wing, 71-76, (female) 73; tail, 50-55; bill, 11-12.

*Material examined*.—Brazil, Goyáz: Leopoldina, Rio Araguaya, 1 (the type); Goyáz City, 5; José Dias, 1.

<sup>3</sup> *Calospiza cayana margaritae* (Allen): Differs in the male sex from *C. c. flava* and *C. c. chloroptera* by having the pileum light tawny, decidedly contrasting with the color of the back; the dorsal feathers cream-buff or chamois tipped with

- Calliste margaritae* Allen, Bull. Amer. Mus. N. H., 3, p. 351, 1891—Chapada, Matto Grosso, Brazil (type in the American Museum of Natural History, New York).
- Calospiza margaritae* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1041, 1134, 1912—Matto Grosso (Chapada).
- Calospiza flava margaritae* Hellmayr, Nov. Zool., 15, p. 28, 1908—Chapada (crit.).
- Tangara flava margaritae* Naumburg, Bull. Amer. Mus. N. H., 60, p. 371, 1930—Utiarity, Matto Grosso.
- Calospiza formosa* (not *Tanagra formosa* Vieillot) Ihering, Cat. Faun. Braz., 1, p. 355, 1907—part, Matto Grosso; Bertoni, Faun. Parag., p. 62, 1914—part, Matto Grosso.

*Range*.—Central Brazil, in State of Matto Grosso (Chapada, Utiarity).

4: Brazil, Matto Grosso (Chapada, 4).

\**Calospiza dowii* (Salvin). DOW'S TANAGER.

- Calliste dowii* Salvin, Proc. Zool. Soc. Lond., 1863, p. 168—"San José," Costa Rica (type, from Rancho Redondo de San José, in Salvin-Godman Collection, now in British Museum, examined); Sclater, Ibis, 1863, p. 451, pl. 12—"San José," Costa Rica (descr. and fig. of type); Salvin, Ann. Mag. Nat. Hist., (3), 13, p. 104, 1864 (reprint of orig. descr.); idem, Proc. Zool. Soc. Lond., 1870, p. 187—Cordillera del Chucú, Veraguas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 98, 1868—Costa Rica ("San José," Turrialba, Navarro); Frantzius, Journ. Orn., 17, p. 298, 1869—Guadalupe, near San José, Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 54—Navarro, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Cartago(?) and Rancho Redondo de San José, Costa Rica.
- Calliste dowii* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 272, 1883—Costa Rica (Rancho Redondo, Guadalupe, "San José," Turrialba, Navarro, Irazú) and Veragua (Cordillera del Chucú); Sclater, Cat. Bds. Brit. Mus., 11, p. 124, 1886—Costa Rica (Rancho Redondo, Irazú, Navarro, Quebrada Honda) and Veragua (Cordillera del Chucú); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 3, 1899—Chiriquí.
- Calospiza dowii* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 46, 1902—Costa Rica and Veragua (monog.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 278, 1920—Coliblanco, Costa Rica.
- Calospiza dowii* Bangs, Proc. New Engl. Zool. Cl., 3, p. 65, 1902—Boquete and Volcan de Chiriquí, Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1035, 1912—Costa Rica and Veragua.

silvery green; paler, tawny olive rather than ochraceous buff sides and flanks; less blackish, often buff-edged axillaries and under wing coverts; female much like *C. c. cayana* and differing from *C. c. flava* and *C. c. chloroptera* by much more ochraceous (shining buckthorn brown to ochraceous tawny) pileum. Wing, 73-77, (female) 71-75; tail, 52-56.

*C. c. margaritae* combines the general coloration of *C. c. cayana* with the black throat and abdominal stripe of *C. c. flava* and *C. c. chloroptera*.

*Additional material examined*.—Matto Grosso: Chapada, 22.

*Tangara dowii* Carriker, Ann. Carnegie Mus., 6, p. 859, 1910—Coliblanco, Lagunaria de Dota, Irazú, La Estrella de Cartago, Azahár de Cartago, Vara Blanca, Escazú, La Hondura, and Volcan de Turrialba, Costa Rica (habits).

*Range*.—Subtropical zone of Costa Rica and western Panama (Chiriquí and Veraguas).<sup>1</sup>

13: Costa Rica (Cartago, 1; Coliblanco, 7; La Hondura, 3; Peralta, 1; Volcan de Irazú, 1).

### *Calospiza fucosa* (Nelson).<sup>2</sup> GREEN-NAPED TANAGER.

*Tangara fucosa* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 17, Sept., 1912—Mount Pirri, near head of Rio Limón, eastern Panama (type in U. S. National Museum).

*Range*.—Subtropical zone of eastern Panama (Mount Pirri).

### *Calospiza nigroviridis berlepschi* (Taczanowski).<sup>3</sup> BERLEPSCH'S TANAGER.

*Calliste nigroviridis berlepschi* Taczanowski, Orn. Pér., 2, p. 469, 1884—Azuquimarca (Junín), Tambillo (Prov. Jaen), and Cosnipata (Dept. Cuzco), Peru (type, from Tambillo, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 182, 1927); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—Garita del Sol, Vitoc, Dept. Junín.

*Calospiza nigroviridis berlepschi* Berlepsch and Stolzmann, Ornith., 13, p. 78, 1906—Idma, Urubamba, Dept. Cuzco; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1036, 1132, 1912—Tambillo (crit.).

<sup>1</sup> Specimens from Chiriquí (Boquete) agree with those from Costa Rica. *Material examined*.—Costa Rica, 19.—Panama: Chiriquí (Boquete), 9.

<sup>2</sup> *Calospiza fucosa* (Nelson): Similar to *C. dowii*, but distinguished by the green instead of tawny patch on middle of occiput; a well-marked green patch covering part of the cheeks and auriculars; much paler, ochraceous buffy under parts with black centers to the feathers of the flanks; by having the feathers on the foreneck below the black gular area broadly tipped with ultramarine blue, etc. Wing, 72; tail, 50; bill, 12 (Nelson, l.c.).

This species, which we have not seen, appears to approach the *C. nigroviridis* group by certain color characters, bridging the wide gap that separates it from *C. dowii*, and it is quite possible that both *C. dowii* and *C. fucosa* may prove to be conspecific with the South American representatives.

<sup>3</sup> *Calospiza nigroviridis berlepschi* (Taczanowski): Nearest to *C. n. nigroviridis*, but still less greenish, the pileum, rump, cheeks, and under parts having a more or less yellowish (brassy or brassy) tone; humeral area pale bluish green instead of cyanine blue; edges to larger wing coverts, remiges, and rectrices decidedly greenish; lower throat more greenish, rarely with a hardly perceptible bluish sheen. Wing, 68–71, (female) 67; tail, 44–50; bill, 8.

In another connection (Arch. Naturg., 90, A, Heft 2, pp. 180–181, 1924) we have given our reasons for including the inhabitants of the whole of Peru under the subspecific term *berlepschi*, originally bestowed by the describer upon examples from Tambillo. Additional material since examined tends to corroborate the soundness of this arrangement.

*Material examined*.—Peru: Tambillo, 2; Chachapoyas, 1; La Garita del Sol, Junín, 3; Huaynapata, Marcapata, 2; Marcapata, 1.



*Tangara nigroviridis berlepschi* Chapman, Bull. U. S. Nat. Mus., 117, p. 118, 1921—Idma and Huadquiña, Urubamba; Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 180, 1924—Peru (crit.).

*Calliste nigriviridis* (not *Tanagra nigroviridis* Lafresnaye) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Auquimarca, Dept. Junín; idem, l.c., 1879, p. 226—Tambillo (crit.); idem, l.c., 1880, p. 194—Tambillo (descr. of young); Sclater, Cat. Bds. Brit. Mus., 11, p. 122, 1886—part, Peru.

*Calospiza nigroviridis* Berlepsch and Stolzmann, Ornith., 13, p. 110, 1906—Huaynapata, Marcapata (spec. examined); Berlepsch, Verh. 5th Intern. Kongr. Berlin, p. 1035, 1912—part, Peru (Chachapoyas, Auquimarca, Garita del Sol, Chanchamayo, "Santa Ana," Cosnipata, Huaynapata, Marcapata).

*Range.*—Subtropical zone of eastern Peru from depts. Cajamarca (Tambillo, Prov. Jaen) and Amazonas (Chachapoyas) south to Cuzco (Urubamba and Marcapata valleys).

***Calospiza nigroviridis nigroviridis* (Lafresnaye).<sup>1</sup> BLACK-AND-GREEN TANAGER.**

*Tanagra nigroviridis* Lafresnaye, Rev. Zool., 6, p. 69, 1843—"Bogotá" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass., examined; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 401, 1930).

*Tanagra (Aglais) nigroviridis* Lafresnaye, Mag. Zool., (2), 5, pl. 43, 1843—"Bogotá."

*Calliste nigriviridis*<sup>2</sup> Bonaparte, Consp. Gen. Av., 1, (1), p. 235, 1850—"Bogotá"; Sclater, Contrib. Orn., 1851, p. 56 (diag.); idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, pp. 19, 260, 1856—part, New Grenada ("Bogotá") and eastern Ecuador (Quixos); idem, Monog. Gen. Calliste, p. 77, 1857—part, "Bogotá" and eastern Ecuador (Quixos); idem, Cat. Coll. Amer. Bds., p. 69, 1862—part, spec. a, b, "Bogotá"; idem, Cat. Bds. Brit. Mus., 11, p. 122, 1886—part, spec. a-g, "Bogotá"; Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá"; Goodfellow, Ibis, 1901, p. 462—part, Baeza, eastern Ecuador (spec. examined).

*Tangara nigroviridis nigroviridis* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 181, 1924—part, eastern Colombia ("Bogotá") and eastern Ecuador (Baeza) (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 660, 1926—Baeza, Ecuador (crit.).

*Chalcothraupis nigroviridis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 145, 1851—"Bogotá."

<sup>1</sup> *Calospiza nigroviridis nigroviridis* (Lafresnaye) stands just between *C. n. berlepschi* and *C. n. consobrina*, being more greenish (less brassy) than the former, but much less bluish than the latter.

Birds from eastern Ecuador (Baeza) agree perfectly with native "Bogotá" skins which probably came from the eastern slope of the east Colombian Andes. The type pertains likewise to this race.

*Additional specimens examined.*—Colombia: "Bogotá," 14.—Ecuador: Baeza, 6.

<sup>2</sup> Frequently spelled "*nigriviridis*."

*Calospiza nigriviridis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1035, 1912—part, "Bogotá," Colombia.

*Range*.—Subtropical zone of the eastern slope of the eastern Andes of Colombia and eastern Ecuador (Baeza).

\**Calospiza nigroviridis consobrina* (Hellmayr).<sup>1</sup> ALLIED  
TANAGER.

*Tangara nigroviridis consobrina* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 27, March, 1921—San Pablo, Prov. Tuqueres, Colombia (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 182, 1924—western Colombia (San Pablo) and western Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 661, 1926—western Ecuador (El Chiral, Zaruma, Punta Santa Ana, San Bartolo, Alamor).

*Calliste nigroviridis*<sup>2</sup> (not *Tanagra nigroviridis* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 260, 1856—part, Calacali, Ecuador; idem, Monog. Gen. Calliste, p. 77, 1857—part, western Ecuador (Calacali, western slope of Pichincha); idem, Cat. Coll. Amer. Bds., p. 69, 1862—part, spec. c, Ecuador; idem and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Santa Elena and Envigado, Antioquia, Colombia; Berlepsch and Taczanowski, l.c., 1884, p. 289—Cayandede and Chaguarpata, Ecuador (crit.); Berlepsch, Journ. Orn., 32, p. 291, 1884—Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 122, 1886—part, spec. h-p, Colombia (Santa Elena, Medellin, Envigado, "Pasto") and Ecuador (Intag); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nanegal, Ecuador; Goodfellow, Ibis, 1901, p. 462—part, western Ecuador (Canzacota and western Pichincha; spec. examined).

*Calospiza nigriviridis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1035, 1912—part, western Ecuador (Cayandede, Chaguarpata, Calacali) and Colombia (Bucaramanga, Antioquia, "Pasto," San Pablo); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Nanegal, Ecuador.

*Tangara nigroviridis nigroviridis* Chapman, Bull. Amer. Mus. N. H., 36, p. 598, 1917—Colombia (Paramillo, San Antonio, Gallera, Cocal, Salento, Santa Elena, El Eden, Fusugasugá, Aguadita, El Roble, Subia); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 181, 1924—part, western slope of east Colombian Andes (Fusugasugá, Aguadita, El Roble, Subia).

<sup>1</sup> *Calospiza nigroviridis consobrina* (Hellmayr): Nearest to *C. n. nigroviridis*, but much more bluish throughout; pileum and rump with a decided bluish sheen; external margins to wings and tail deeper, more ultramarine blue; under parts decidedly bluish, strongly tinged with dark blue on lower throat. Wing, 67-72, (female) 65-70; tail, 44-50.

Birds from the Pacific slope of Ecuador are identical with the typical series from San Pablo. As pointed out by Chapman (Bull. Amer. Mus. N. H., 55, p. 660, 1926), this form inhabits the whole of Colombia with the exception of the Santa Marta region and the east side of the eastern Andes. Even birds from the Magdalena slope of the east-Andean chain—referred by me through lack of material to typical *nigroviridis*—prove to pertain to *consobrina*.

*Material examined*.—Colombia: San Pablo, Prov. Tuqueres, 7; Antioquia, 1; Aguadita, 1; El Roble, 1.—Ecuador: Cayandede, 2; Govinda, 1; western slope of Pichincha, 2; Canzacota, 1; Intag, 4; Mindo, 2; unspecified, 3.

<sup>2</sup> Frequently spelled "*nigroviridis*."

*Range*.—Subtropical zone of western Ecuador and Colombia east to the western slope of the eastern Andes.

4: Colombia (Rio Lima, 1; Cachiri, Santander, 2; Subia, near La Mesa, Cundinamarca, 1).

\****Calospiza nigroviridis cyanescens* (Sclater).**<sup>1</sup> BLUISH TANAGER.

*Calliste cyanescens* Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 260, 1857—Venezuela, Caracas and Colonia de Tovar (type from Colonia de Tovar, near Caracas, in coll. of P. L. Sclater, now in British Museum); idem, Monog. Gen. Calliste, p. 79, pl. 35, 1857—Colonia de Tovar and Caracas; idem, Cat. Coll. Amer. Bds., p. 70, 1862—Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—Caracas.

*Calospiza nigroviridis cyanescens* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1036, 1132, 1912—Venezuela, east to Caracas (crit.).

*Tanagra nigroviridis cyanescens* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 59, 1912—Cumbre de Valencia, Carabobo (crit.); Hellmayr, l.c., 90, A, Heft 2, pp. 179, 183, 1924—Silla de Caracas and Galipán, Cerro del Avila, Venezuela (crit., range).

*Calliste nigroviridis* (not *Tanagra nigroviridis* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 19, 1856—part, Venezuela; Sclater and Salvin, l.c., 1875, p. 237—San Cristóbal, Táchira; Sclater, Cat. Bds. Brit. Mus., 11, p. 122, 1886—part, spec. q-w, Venezuela (Caracas, Aragua, San Cristóbal).

*Range*.—Subtropical zone of the Venezuelan Andes from Táchira to Caracas.

4: Venezuela (Montañas Sierra, 1; Nevados, Mérida, 1; Páramo de Tamá, 1; Rio Mucujón, 1).

\****Calospiza vassorii vassorii* (Boissonneau).** VASSORI'S TANAGER.

*Tanagra (Euphone?) vassorii* Boissonneau, Rev. Zool., 3, p. 4, 1840—Santa-Fé-de-Bogotá, Colombia (location of type not stated, its whereabouts unknown).

*Tanagra vassorii* Boissonneau, Mag. Zool., (2), 3, pl. 23, 1841—Santa-Fé-de-Bogotá (figure of type).

*Tanagra (Aglaia) diva* Lesson, Écho du Monde Sav., 11, 2nd sem., No. 3, p. 57, July 11, 1844—Colombia (type in coll. of Dr. Abeillé, Bordeaux).

<sup>1</sup> *Calospiza nigroviridis cyanescens* (Sclater): Most like *C. n. consobrina* in coloration, but humeral area more extensive as well as deeper, smalt blue; margins to upper wing coverts, wholly or in part, likewise smalt blue; those of the remiges and rectrices also darker blue, sometimes inclining to violet blue; blue patch on the lower throat larger and more purplish; wings and tail much longer. Wing, 74–78, (female) 70–74; tail, 52–57, (female) 49–54.

While a series from Mérida as a whole cannot be satisfactorily separated from Caracas birds, some examples, by slightly more greenish blue under parts with smaller blue jugular spot, and paler edges to the wing coverts, form the passage to *C. n. nigroviridis*.

*Additional material examined*.—Venezuela: Silla de Caracas, 1; Galipán, Cerro del Avila, 25; La Cumbre de Valencia, Carabobo, 10; Sierra of Mérida (Mérida, El Valle, Conejos), 9.

*Calliste vassori* Bonaparte, *Consp. Gen. Av.*, 1, (1), p. 235, 1850—Bogotá; Sclater, *Contrib. Orn.*, 1851, p. 60—Colombia.

*Diva vassori*(i) Sclater, *Proc. Zool. Soc. Lond.*, 23, p. 158, 1855—Bogotá; idem, *l.c.*, 24, p. 264, 1856—Bogotá (monog.); idem, *l.c.*, 28, p. 87, 1860—above Puellaro, Ecuador; idem, *Cat. Coll. Amer. Bds.*, p. 62, 1862—above Puellaro and Bogotá; Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1870, p. 780—wood region of Mérida; idem, *l.c.*, 1875, p. 234—Mérida; Taczanowski, *l.c.*, 1879, p. 226—Tambillo, Peru; Sclater and Salvin, *l.c.*, 1879, p. 498—Santa Elena, Colombia; Berlepsch, *Journ. Orn.*, 32, p. 289, 1884—Bucaramanga, Colombia; Taczanowski, *Orn. Pér.*, 2, p. 454, 1884—Tambillo and Paucal, Peru; idem and Berlepsch, *Proc. Zool. Soc. Lond.*, 1885, p. 77—La Unión and San Rafael, Ecuador.

*Procnopis vassori* Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 93, 1886—Venezuela (Sierra Nevada), Colombia (Bogotá, Medellín, Santa Elena), Ecuador ("Puna Island!" above Puellaro), and Peru (Tambillo); Goodfellow, *Ibis*, 1901, p. 460—Canzacota, Gualea, Mindo, and Baeza, Ecuador; Ménégau, *Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat.*, 9, p. B. 92, 1911—Alaspungo, Lanlin (Nanegal), and Chorrillos, Ecuador; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1025, 1912—Venezuela (Mérida to Peru); Pigué, *Mém. Soc. Neuchât. Sci. Nat.*, 5, p. 809, 1914—Cafetal La Camelia, near Angelópolis, Colombia; Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 592, 1917—Colombia (Paramillo, Andes west of Popayán, La Florida, Almaguer, Salento, Laguneta, Santa Elena, El Eden, Rio Toché, El Roble, El Piñon); Lönnberg and Rendahl, *Ark. Zool.*, 14, No. 25, p. 83, 1922—below Mindo and below Nono, Ecuador; Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 654, 1926—Ecuador (Mindó, Pallatanga, San Bartolo, Loja, upper Sumaco, above Baeza, Papallacta) and Peru (El Tambo); Berlioz, *Bull. Mus. Hist. Nat. Paris*, 34, p. 74, 1928—Pinon and Huila, Ecuador; idem, *l.c.*, (2), 4, p. 626, 1932—El Portete de Tarquí, Ecuador.

*Range*.—Upper Subtropical and Temperate zones of western Venezuela (Sierra of Mérida), Colombia (except Santa Marta region), Ecuador, and northwestern Peru (western Cordillera in depts. of Piura and Cajamarca).<sup>1</sup>

7: Colombia (Almaguer, Cauca, 1; Cachiri, Santander, 2; Santa Elena, Antioquia, 1; Bogotá, 2); Ecuador (Nono, 1).

\**Calospiza vassorii branickii* (Taczanowski).<sup>2</sup> BRANICKI'S Tanager.

*Diva branickii* Taczanowski, *Proc. Zool. Soc. Lond.*, 1882, p. 10—Tamiapampa, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski,

<sup>1</sup> Two adults from Tambillo appear to agree with five from Ecuador and ten from Colombia. Specimens from Mérida, Venezuela, are not different either.

<sup>2</sup> *Calospiza vassorii branickii* (Taczanowski): Similar to *C. v. vassorii*, but top and sides of the head dull bluish green (near light terre verte), paler on the hind crown.

*Additional material examined*.—Peru: Tamiapampa, 3; Levanto, 7; Chapoyas, 1.



Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 182, 1927); idem, Orn. Pér., 2, p. 455, 1886—Tamiapampa.

*Procnopis branickii* Sclater, Cat. Bds. Brit. Mus., 11, p. 94, 1886—Tamiapampa; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1025, 1912—Peru (Tamiapampa, Levanto, Chachapoyas).

*Procnopis branickii* Ménégau, Rev. Franç. d'Orn., 2, p. 9, 1911—Cumpang.

*Range*.—Upper Subtropical and Temperate zones of the eastern side of the eastern Cordillera in northern Peru (Tamiapampa, Chachapoyas, Levanto, Molinopampa, Cumpang).

1: Peru (Molinopampa, 1).

\**Calospiza vassorii atrocaerulea* (Tschudi).<sup>1</sup> BLACK-AND-BLUE TANAGER.

*Procnopis atrocaerulea* Tschudi, Arch. Naturg., 10, (1), p. 285, 1844—Peru (type in Neuchâtel Museum); idem, Untersuch. Faun. Peru., Aves, p. 199, pl. 13, fig. 2, 1846—Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 341—Garita del Sol and Maraynioc, Dept. Junín, Peru; idem, Ornith., 13, p. 109, 1906—Huaynapata, Peru.

*Procnopis atricaerulea* Sclater, Cat. Bds. Brit. Mus., 11, p. 94, 1886—Peru and Bolivia (Tiltilo, Nairapi); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1025, 1912—Peru and Bolivia.

*Calliste atrocaerulea* Sclater, Contrib. Orn., 1851, p. 59—Peru; idem, Proc. Zool. Soc. Lond., 24, p. 258, 1856—Peru and Bolivia (diag.); idem, Monog. Gen. Calliste, p. 69, pl. 31, 1857—Peru (figure of type); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 515—Pumamarca and Paltaypampa, Peru; Sclater and Salvin, l.c., 1879, p. 599—Tiltilo and Nairapi, Bolivia.

*Chalcothraupis atrocaerulea* Bonaparte, Rev. Mag. Zool., (2), 3, p. 144, 1851 (ex Tschudi).

*Diva atrocaerulea* Taczanowski, Orn. Pér., 2, p. 456, 1886—Pumamarca, Paltaypampa, and Higos, Peru.

*Tangara atrocaerulea atrocaerulea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 438, 1930—Panao, Huánuco, Peru (crit.).

*Range*.—Upper Subtropical and Temperate zones of Peru (from Dept. Huánuco southward) and Bolivia.

1: Peru (Panao Mountains, 1).

<sup>1</sup> *Calospiza vassorii atrocaerulea* (Tschudi): Nearest to *C. v. branickii*, but head more bluish with a distinct patch of shining pale straw yellow on the hind crown; interscapulum black; blue of rump and under parts less purplish; breast and abdomen with the blackish subapical portions of the feathers more strongly pronounced, causing a spotted effect.

Birds from Junín and Marcapata appear to agree, while those from Bolivia have the head above perhaps not quite so greenish. A single male from Panao, Huánuco, differs by having the feathers of the black interscapulum decidedly margined with the blue of the rump, thus indicating intergradation to *C. v. branickii*.

*Additional material examined*.—Peru: Garita del Sol, Junín, 1; Puyas-Yacu, Junín, 2; Huaynapata, Marcapata, 1; Marcapata, 4.—Bolivia: Cocapata, 10; Sandillani, 1; San Antonio, 2.

\**Calospiza heinei* (Cabanis). BLACK-CAPPED TANAGER.

*Tanagra (Aglai) atricapilla* (not *Tanagra atricapilla* Gmelin, 1789) Lafresnaye, Rev. Zool., 6, p. 290, 1843—Colombia (descr. of adult male; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 403, 1930).

*Procnias heinei* Cabanis, Mus. Hein., 1, p. 31, Oct., 1851—Colombia (descr. of female or young male; type in Heine Collection, now in Municipal Museum, Halberstadt); Sclater, Proc. Zool. Soc. Lond., 22, p. 249, 1854 (crit.).

*Procnias heini* Bonaparte, Rev. Mag. Zool., (2), 3, p. 154, 1851—Colombia (diag.).

*Calliste atricapilla* Sclater, Contrib. Orn., 1851, p. 59—Colombia (Popayán) and Venezuela (Colonia de Tovar, near Caracas) (descr. of male and female); idem, Proc. Zool. Soc. Lond., 23, p. 158, 1855—"Bogotá"; idem, l.c., 24, p. 259, 1856—Colombia ("Bogotá," Popayán) and Venezuela (near Caracas); idem, Monog. Gen. Calliste, p. 73, pl. 33, figs. 1 (male), 2 (female), 1857—same localities (monog.); idem, Cat. Coll. Amer. Bds., p. 69, 1862—Venezuela and "Bogotá"; Wyatt, Ibis, 1871, p. 325—Pirico, Canuto, etc. (5,000–6,000 feet), eastern Andes, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 499—Retiro, Concordia, and Frontino, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 136, 1886—Colombia ("Bogotá," Retiro, Frontino) and Venezuela.

*Chalcothraupis atricapilla* Bonaparte, Rev. Mag. Zool., (2), 3, p. 144, 1851—Colombia (diag.).

*Calospiza atricapilla* Allen, Bull. Amer. Mus. N. H., 13, p. 169, 1900—Valparaiso and Las Nubes, Santa Marta, Colombia; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1040, 1912—Colombia ("Bogotá," Pirico, Canuto, Antioquia, Popayán, Valparaiso), eastern Ecuador, and Venezuela (Andes of Mérida, Caracas).

*Tangara atricapilla* Chapman, Bull. Amer. Mus. N. H., 36, p. 600, 1917—La Frijolera, San Antonio, Cerro Munchique, Ricaurte, La Sierra, Popayán, Santa Elena, Barro Blanco, Aguadita, El Roble, and Subia, Colombia.

*Tangara heinei* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 36, 1919 (crit.); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 184, 1924—Galipán, Cerro del Avila, Venezuela (crit.); Todd and Carriker, Ann. Carnegie Mus., 14, p. 493, 1922—Las Nubes, Valparaiso, Las Taguas, Las Vegas, San Miguel, and Heights of Chirua, Santa Marta region, Colombia (crit., habits); Chapman, Bull. Amer. Mus. N. H., 55, p. 666, 1926—below Oyacachi, Ecuador.

*Range*.—Subtropical zone of northwestern Venezuela (from the Caracas region to the Sierra of Mérida), Colombia, and eastern Ecuador (below Oyacachi).<sup>1</sup>

<sup>1</sup> Though individual variation is considerable as far as coloration is concerned, I cannot make out any local races. Birds from Caracas and Santa Marta seem to have slightly smaller bills than those from Mérida and other parts of Colombia, but the divergency is quite insignificant.

*Additional material examined*.—Venezuela: Galipán, Cerro del Avila, 8; El Valle, Mérida, 3; Culata, Mérida, 1.—Colombia: "Bogotá," 13; Antioquia (Retiro, Frontino), 5; Valparaiso, Santa Marta, 4.

6: Colombia (Aguadita, above Fusugasugá, 1; Ricaurte, Nariño, 1; Valparaiso, Santa Marta, 1); Venezuela (Mérida, 1; Montañas Sierra, 2).

**Calospiza viridicollis viridicollis** (Taczanowski).<sup>1</sup> SILVERY TANAGER.

*Procnopis argentea* (not *Tanagra argentea* Lafresnaye, 1843) Tschudi, Arch. Naturg., 10, (1), p. 285, 1844—Peru (type in Neuchâtel Museum examined); idem, Unters. Faun. Peru., Aves, p. 199, pl. 14, fig. 2, 1846—forest region of eastern Peru.

*Calliste argentea viridicollis* Taczanowski, Orn. Pér., 2, p. 468, 1884—Huiro, Urubamba Valley, Dept. Cuzco, Peru (types in Salvin-Godman Collection, now in British Museum).

*Chalcothraupis argentea* Bonaparte, Rev. Mag. Zool., (2), 3, p. 145 (ex Tschudi).

*Calliste argentea* Sclater, Contrib. Orn., 1851, p. 60—Peru; idem, Proc. Zool. Soc. Lond., 24, p. 259, 1856—eastern Peru (diag.); idem, Monog. Gen. Calliste, p. 75, pl. 34, 1857—Peru (fig. of type); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Paltaypampa, Dept. Junín; idem, Orn. Pér., 2, p. 466, 1884—part, Paltaypampa; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 340—Garita del Sol, Vitoc, Peru.

*Calliste argentea* b. subsp. *viridicollis* Sclater, Cat. Bds. Brit. Mus., 11, p. 137, 1886—Huiro, Urubamba, Peru.

*Calospiza argentea* Berlepsch and Stolzmann, Orn. 13, p. 79, 1906—Idma, Urubamba, Peru (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1039, 1912—Peru (Junín to Urubamba).

*Tangara argentea argentea* Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—Idma and San Miguel Bridge, Urubamba.

**Range.**—Subtropical zone of central and southern Peru, from depts. of Huánuco and Junín south to the Urubamba Valley, Dept. of Cuzco.

<sup>1</sup> *Calospiza viridicollis viridicollis* (Taczanowski), while nearly allied to *C. heinei* (Cabanis), nevertheless differs, in the male sex, very markedly by silvery bluish back and flanks; the peculiar, shining dingy ochreous yellow coloration of throat, cheeks, and auriculars; black breast and upper abdomen, etc. The females of the races of *viridicollis* are even more widely different from the female of *C. heinei*, and, in addition to the ochreous yellow throat and sides of face, may be separated by their brown instead of green pileum. Still, the two species may prove to pertain to a single "formenkreis."

Adult males from central Peru (depts. of Huánuco and Junín), when compared with others from the Urubamba Valley, have the back, wing edgings, and flanks slightly more bluish and, by the somewhat darker ochreous tone of throat and auriculars, betray a tendency toward *C. v. fulvigula*; but the variation which, moreover, needs corroboration by additional material, is insignificant, and as Tschudi's name *C. argentea* is preoccupied by *Tanagra argentea* Lafresnaye, a synonym of *Calospiza cyanoptera* (Swainson), the whole population of central and southern Peru may, for the present, conveniently be united under Taczanowski's term *viridicollis*.

**Material examined.**—Peru: Cushi Libertad, Dept. Huánuco, 2; La Garita del Sol, Dept. Junín, 3; Idma, Urubamba, Dept. Cuzco, 4.

\**Calospiza viridicollis fulvigula* Berlepsch and Stolzmann.<sup>1</sup>  
NORTHERN SILVERY TANAGER.

*Calospiza argentea fulvigula* Berlepsch and Stolzmann, *Ornis*, 13, No. 2, p. 80, Sept., 1906—Tambillo, northwestern Peru (type in Berlepsch Collection, now in Frankfort Museum, examined); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1039, 1134, 1912—"eastern" Ecuador and northwestern Peru.

*Tangara argentea fulvigula* Bangs and Noble, *Auk*, 35, p. 460, 1918—Tabaconas and Huancabamba, Peru; Chapman, *Bull. Amer. Mus. N. H.*, 55, p. 666, 1926—Ecuador (above Zaruma, Punta Santa Ana, Alamor, Loja) and Peru (Palambra, Chaupe).

*Calliste argentea* (not *Procnopis argentea* Tschudi) Taczanowski, *Proc. Zool. Soc. Lond.*, 1879, p. 226—Tambillo; idem, l.c., 1882, p. 11—Chirimoto; idem, *Orn. Pér.*, 2, p. 466, 1884—part, Tambillo, Chirimoto, Huayabamba, Socota, Cutervo, and Paucal; Selater, *Cat. Bds. Brit. Mus.*, 11, p. 137, 1886—part, subsp. a. *typica*, Tambillo (Peru) and "Jima," Ecuador.

*Range*.—Subtropical zone of southern Ecuador and northern Peru, in depts. of (eastern) Piura, Cajamarca, and Amazonas.

2: Peru (Molinopampa, 1; Rio Utcubamba, 1).

*Calospiza argyrofenges* (Selater and Salvin).<sup>2</sup> GREEN-THROATED TANAGER.

*Calliste argyrofenges* Selater and Salvin, *Proc. Zool. Soc. Lond.*, 1876, p. 354, pl. 30, fig. 2—Tilotilo, Prov. Yungas, Bolivia (type in Salvin-Godman Collection, now in British Museum).

*Calliste argyrophenges* Selater and Salvin, *Proc. Zool. Soc. Lond.*, 1879, p. 599—Tilotilo, Bolivia; Taczanowski, l.c., 1882, p. 12—Huambo, Peru (descr. of female); idem, *Orn. Pér.*, 2, p. 468, 1884—Huambo; Selater, *Cat. Bds. Brit. Mus.*, 11, p. 137, 1886—Bolivia and Peru (Huambo).

*Calospiza argyrophenges* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1040, 1134, 1912—Peru (Huambo) and Bolivia (Tilotilo).

<sup>1</sup>*Calospiza viridicollis fulvigula* Berlepsch and Stolzmann: Differs from the typical race by more silvery greenish (less bluish) dorsal surface, flanks, and edges to upper wing coverts; more greenish blue margins to wing and tail feathers; more reddish throat and sides of face; while the female, besides the last-named character, may be distinguished by its more reddish brown crown; bill somewhat stouter. Wing, 76-79, (female) 74-76; tail, 55-57, (female) 54-55; bill, 10.

Two males from "Jima," Ecuador, agree well with others from Tambillo. The occurrence in eastern Ecuador resting, as it does, on Buckleyan skins, needs confirmation.

*Material examined*.—Peru: Tambillo, 6.—Ecuador: "Jima," 2.

<sup>2</sup>*Calospiza argyrofenges* (Selater and Salvin), which is autoptically unknown to us, appears to be allied to *C. cyanoptera*, but to differ by green throat and auriculars, black under parts and sides of neck, and uniform black wings. It has been recorded only from northeastern Peru (Huambo) and northern Bolivia (Tilotilo).

Carriker (*Proc. Acad. Nat. Sci. Phila.*, 87, p. 357, Oct. 25, 1935) found birds from northern Peru (Rio Jelashte, Dept. San Martín) to differ from those of Bolivia by more silvery, less yellowish upper parts and sides as well as by more bluish throat, and separates them as *Tangara a. caerulicigularis*.



*Range*.—Subtropical zone of northeastern Peru (Huambo, valley of Huayabamba) and Bolivia (Tilotilo, Yungas of La Paz).

**\*Calospiza cyanoptera cyanoptera** (Swainson). BLUE-WINGED TANAGER.

*Aglaia cyanoptera* Swainson, Orn. Draw., Part 1, pl. 8, 1834—no locality given, we suggest vicinity of Caracas, Venezuela (type probably in the Swainson Collection, University Museum, Cambridge, Engl.).

*T[anagra] argentea* Lafresnaye, Rev. Zool., 6, No. 3, p. 69, 1843—"Bogotá ou Caracas" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 403, 1930).

*Calliste cyanoptera* Bonaparte, Rev. Mag. Zool., (2), 3, p. 140, 1851—"Brazil" (crit.); Sclater, Proc. Zool. Soc. Lond., 24, p. 254, 1856—Caracas, Venezuela (diag.); idem, Monog. Gen. Calliste, p. 53, pl. 24, 1857—Caracas (monog.); idem, Cat. Coll. Amer. Bds., p. 67, 1862—Venezuela; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caripé [Sucre], Venezuela; Salvin and Godman, Ibis, 1879, p. 200—San José and Atanques, Santa Marta, Colombia; idem, Ibis, 1880, p. 120—Minca, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 135, 1886—Venezuela and Colombia (Minca, San José).

*Calospiza* sp. Bangs, Proc. Biol. Soc. Wash., 12, p. 141, 1898—"Santa Marta."

*Calospiza cyanoptera* Bangs, Proc. Biol. Soc. Wash., 12, p. 159, 1898—Pueblo Viejo; idem, l.c., 12, p. 179, 1898—Palomina and San Miguel; Allen, Bull. Amer. Mus. N. H., 13, p. 170, 1900—Santa Marta records; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1040, 1912—northern Venezuela (Los Palmals; Rio Maméra and Antímano, near Caracas; Mérida) and Colombia (San José, Minca).

*Tangara cyanoptera* Todd and Carriker, Ann. Carnegie Mus., 14, p. 494, 1922—Pueblo Viejo, Cincinnati, Chirua, Heights of Chirua, La Concepción, and San Francisco, Santa Marta region, Colombia (crit., habits); Chapman, Amer. Mus. Nov., 191, p. 12, 1925—Neverí [Sucre], Venezuela.

*Tangara cyanoptera cyanoptera* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 183, 1924—Galipán, Cerro del Avila, Venezuela (crit.).

*Range*.—Subtropical zone of northern Venezuela (from Sucre to Mérida) and northern Colombia (Santa Marta region).<sup>1</sup>

2: Venezuela (Andes of Mérida, 1; Sierra Nevada, 1).

**Calospiza cyanoptera whitelyi** (Salvin and Godman).<sup>2</sup> WHITELY'S TANAGER.

<sup>1</sup> *Additional material examined*.—Venezuela: Los Palmals, Sucre, 6; Galipán, Cerro del Avila, 1; Antímano, near Caracas, 1; Rio Maméra, Caracas, 1; El Valle, Mérida, 3; Mérida, 7; unspecified, 3.—Colombia: Minca, 2.

<sup>2</sup> *Calospiza cyanoptera whitelyi* (Salvin and Godman): Similar to *C. c. cyanoptera*, but upper wing coverts, remiges, and rectrices plain black without any blue edges; general coloration somewhat duller, less brassy; under parts more

*Calliste whitelyi* Salvin and Godman, Ibis, (5), 2, p. 445, pl. 13 (male, female), 1884—Roraima, British Guiana (type in Salvin-Godman Collection, now in British Museum); Salvin, Ibis, 1885, p. 210—Roraima; idem, Ibis, 1886, p. 500—Mount Twek-quay; Selater, Cat. Bds. Brit. Mus., 11, p. 136, 1886—Roraima.

*Calospiza whitelyi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1040, 1912—British Guiana (Roraima, Twek-quay).

*Tangara whitelyi* Chubb, Bds. Brit. Guiana, 2, p. 513, 1921—Mount Roraima; Chapman, Bull. Amer. Mus. N. H., 63, p. 130, 1931—Mounts Roraima and Duida, Venezuela.

*Range*.—Subtropical zone of southern Venezuela (Mount Duida) and British Guiana (Mounts Roraima and Twek-quay).

### Genus IRIDOSORNIS Lesson

*Iridosornis* Lesson, Écho du Monde Sav., 11th année, 2nd sém., No. 4, p. 80, July 14, 1844—type, by monotypy, *Arremon rufi-vertex* Lafresnaye.

*Poecilornis* Hartlaub, Rev. Zool., 5, No. 10, p. 369, Oct., 1844—type, by orig. desig., *Arremon rufi-vertex* Lafresnaye.

*Euthraupis* Cabanis, Mus. Hein., 1, p. 30, Oct., 1851—type (obviously) *Tanagra dubusia* Bonaparte = *Arremon rufi-vertex* Lafresnaye.

*Iridornis* Selater, Proc. Zool. Soc. Lond., 23, p. 157, 1855 (emendation of *Iridosornis* Lesson).

*Iridiornis* Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889 (emendation of *Iridosornis* Lesson).

### *Iridosornis rufivertex caeruleoventris* Chapman.<sup>1</sup> BLUE-VENTED IRIDOSORNIS.

*Iridosornis dubusia caeruleoventris* Chapman, Bull. Amer. Mus. N. H., 34, p. 657, 1915—Paramillo, western Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 601, 1917—Paramillo.

*Iridornis dubusia* (not *Tanagra dubusia* Bonaparte) Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 500—Santa Elena, Colombia; Selater, Cat. Bds. Brit. Mus., 11, p. 140, 1886—part, spec. f, Santa Elena.

heavily spotted with dusky; size slightly smaller. Wing, 72–75; tail, 50–53; bill, 10–11.

*Material examined*.—British Guiana: Roraima, 5.

<sup>1</sup> *Iridosornis rufivertex caeruleoventris* Chapman: Similar to *I. r. ignicapillus* in color of crown patch, but ventral region mostly and under tail coverts wholly dark blue like the abdomen (instead of chestnut), and under wing coverts uniform dusky, not tipped with tawny.

Mr. N. B. Kinnear (in litt.) writes that Santa Elena specimens have just a faint tinge of chestnut on the belly, and are unquestionably referable to the present form.

*Material examined*.—Colombia: Paramillo, western Andes, 1.

*Iridosornis dubusia* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1042, 1912—part, Santa Elena, Antioquia.

*Range*.—Humid Temperate zone at the northern ends of the western Andes (Paramillo) and central Andes (Santa Elena) of Colombia.

**\**Iridosornis rufivertex rufivertex* (Lafresnaye). COLOMBIAN CHESTNUT-VENTED IRIDOSORNIS.**

*Arremon rufi-vertex* Lafresnaye, Rev. Zool., 5, p. 335, 1842—"Bolivia," errore; we suggest Bogotá region, eastern Andes of Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 403, 1930).

*Iridosornis rufivertex* Lesson, Écho du Monde Sav., 11th année, 2nd sém., No. 4, p. 80, July, 1844—"Bolivia" (descr.); idem, Rev. Zool., 7, p. 431, 1844 (crit.).

*Tanagra dubusia* Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—Colombia (type in Leiden Museum).

*Tanagra chrysolopha* Bonaparte, Rev. Mag. Zool., (2), 3, p. 131, 1851—new name for *Tanagra dubusia* Bonaparte.

*Euthraupis dubusia* Cabanis, Mus. Hein., 1, p. 30, Oct., 1851—Colombia.

*Iridosornis dubusia* Strickland, Contrib. Orn., 1852, p. 127, pl. 94; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1042, 1912—part, Colombia (Bogotá) and eastern Ecuador (San Rafael).

*Iridornis dubusia* Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—Bogotá; idem, l.c., 24, p. 242, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 72, 1862—Bogotá; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 80—San Rafael, eastern Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 140, 1886—part, spec. a-e, Bogotá, Colombia.

*Iridosornis dubusia dubusia* Chapman, Bull. Amer. Mus. N. H., 36, p. 601, 1917—El Piñon, eastern Andes, Colombia.

*Iridosornis rufivertex rufivertex* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 36, 1919 (crit., nomencl.);<sup>1</sup> Chapman, Bull. Amer. Mus. N. H., 55, p. 666, 1926—eastern Ecuador (Loja, upper Rio Upano, Oyacachi).

*Range*.—Humid Temperate zone of the eastern Andes of Colombia, adjacent parts of Venezuela, and of the east slope of the Andes of Ecuador.<sup>2</sup>

1: Venezuela (Páramo de Tamá, Táchira, 1).

<sup>1</sup> Bangs and Penard at length discuss the peculiar case of Lafresnaye's name, which after all had better be adopted in spite of the fact that the author believed it to be the same as *Tanagra ruficervix* Prévost and Des Murs.

<sup>2</sup> The locality "Bolivia" ascribed to this bird by Lafresnaye and Lesson was an error.

*Additional material examined*.—Colombia: "Bogotá," 14.—Ecuador: San Rafael, 1; "Quito," 3.

**\*Iridosornis rufivertex ignicapillus** Chapman.<sup>1</sup> ORANGE-CRESTED  
IRIDOSORNIS.

*Iridosornis dubusia ignicapillus* Chapman, Bull. Amer. Mus. N. H., 34, p. 656, 1915—Andes west of Popayán, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 601, 1917—Andes west of Popayán and Almaguer, Colombia.

*Iridornis dubusia ignicapillus* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—below Nono, Ecuador.

*Iridosornis rufivertex ignicapillus* Chapman, Bull. Amer. Mus. N. H., 55, p. 666, 1926—Verdecocha, Ecuador (crit.).

*Iridornis dubusia* (not *Tanagra dubusia* Bonaparte) Sclater, Cat. Bds. Brit. Mus., 11, p. 140, 1886—part, spec. g-j, Nanegal, "Quito," and Sical, Ecuador; Goodfellow, Ibis, 1901, p. 464—western side of Pichincha and Corazón, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 98, 1911—Siglon (Nanegal), Ligui (Santo Domingo), and road to Gualea, Ecuador.

*Iridornis dubusia* Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nono, west of Quito, Ecuador.

*Iridosornis dubusia* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1042, 1912—part, western Ecuador.

*Range*.—Humid Temperate zone of western Ecuador and the southern part of the western Andes of Colombia (Andes west of Popayán and Almaguer).

1: Colombia (Coast range west of Popayán, 1).

**Iridosornis rufivertex reinhardti** (Sclater).<sup>2</sup> REINHARDT'S  
IRIDOSORNIS.

<sup>1</sup> *Iridosornis rufivertex ignicapillus* Chapman: Exactly similar to *I. r. rufivertex*, but crown patch more orange, cadmium orange to orange chrome rather than mars yellow.

It is with considerable reluctance that we maintain this form. We find considerable individual variation in the color of the crown, and while four specimens from the type locality and some from western Ecuador are indeed more orange-crested than the majority of native Bogotá skins (which may, however, have undergone some post-mortem change), others from Nono and Nanegal cannot be separated from the latter. Furthermore, an adult male from San Rafael, eastern Ecuador, which should be typical *rufivertex*, has the crown patch deeper orange than any other specimen examined.

The examination of an adequate series of fresh skins from the eastern Andes of Colombia seems imperative to determine the status of the western race.

*Additional material examined*.—Colombia: Andes west of Popayán, 4.—Western Ecuador: western slope of Pichincha, 3; Nanegal, 2; Nono, 2; Ligui, 1; road to Gualea, 2.

<sup>2</sup> *Iridosornis rufivertex reinhardti* (Sclater): Differs by the absence of rufous on the lower parts, the under tail coverts being dusky blue green like the abdomen, and by having a broad nuchal band of light cadmium descending over the sides of the neck to the posterior portion of the auriculars, while the whole crown is black like the forehead. Wing (male), 85; tail, 73.

Notwithstanding the striking difference in the distribution of colors on the head, this bird, in other respects, is so much like *I. rufivertex* that I have no hesi-



*Iridornis reinhardti* Scater, Ibis, (n.s.), 1, p. 495, pl. 11, 1865—eastern slope of the Peruvian Cordillera (type in Copenhagen Museum); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Pumamarca, Dept. Junín, Peru; idem, Orn. Pér., 2, p. 477, 1884—Pumamarca; Scater, Cat. Bds. Brit. Mus., 11, p. 140, 1886—Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Culumachay and Puyas-Yacu (Maraynioc), Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Cumpang, east of Tayabamba, Peru.

*Iridosornis reinhardti* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1042, 1912—Peru (Pumamarca, Culumachay, Puyas-Yacu).

*Range*.—Humid Temperate zone of Peru, in depts. Libertad (Cumpang, east of Tayabamba, Prov. Pataz) and Junín (Pumamarca, Culumachay, Puyas-Yacu).

### *Iridosornis jelskii jelskii* (Cabanis). JELSKI'S IRIDOSORNIS.

*Iridornis jelskii* Cabanis, Journ. Orn., 21, p. 316, 1873—Maraynioc, Dept. Junín, Peru (type in Berlin Museum); idem, l.c., 22, pl. 2, fig. 1, 1874; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Maraynioc; idem, Orn. Pér., 2, p. 478, 1884—Maraynioc; Scater, Cat. Bds. Brit. Mus., 11, p. 141, 1886—part, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Maraynioc.

*Iridosornis jelskii* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1043, 1912—Maraynioc.

*Iridosornis jelskii jelskii* Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—above Matchu Picchu, Dept. Cuzco.

*Range*.—Humid Temperate zone of southern Peru, in depts. of Junín (Maraynioc) and Cuzco (above Matchu Picchu).<sup>1</sup>

### *Iridosornis jelskii boliviana* Berlepsch.<sup>2</sup> BOLIVIAN IRIDOSORNIS.

*Iridosornis jelskii boliviana* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1043, 1134, Feb., 1912—Unduavi, Dept. La Paz, Bolivia (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Iridornis jelskii* (not of Cabanis) Scater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 599—Tilotilo, Bolivia; Scater, Cat. Bds. Brit. Mus., 11, p. 141, 1886—part, Bolivia (Tilotilo).

*Range*.—Humid Temperate zone of western Bolivia (Unduavi and Tilotilo, Dept. La Paz).

tation in associating it in the same specific group. By the lack of rufous on the under tail coverts it forms an interesting parallel to the west Andean race *I. r. caeruleoventris*.

*Material examined*.—Peru: Maraynioc, Culumachay, 1.

<sup>1</sup> *Material examined*.—Peru, Dept. Junín: Maraynioc, 4.

<sup>2</sup> *Iridosornis jelskii boliviana* Berlepsch: Similar to *I. j. jelskii*, but smaller with shorter bill, and forehead in the middle more or less suffused with black. Wing, 70–73½, (female) 70–73; tail, 61–65; bill, 10½–11½.

*Material examined*.—Bolivia: Unduavi, 6.

\**Iridosornis analis analis* (Tschudi). YELLOW-THROATED  
IRIDOSORNIS.

*Tanagra analis* Tschudi, Arch. Naturg., **10**, (1), p. 287, 1844—Peru (type in Neuchâtel Museum); idem, Unters. Faun. Peru., Aves, p. 205, pl. 18, fig. 1, 1846—Peru; Lafresnaye, Rev. Zool., **10**, p. 71, 1847—"Bolivia" (descr.).

*Iridornis analis* Sclater, Proc. Zool. Soc. Lond., **24**, p. 243, 1856—"fruit gardens of Lima" (ex Tschudi) (descr.); idem, Cat. Coll. Amer. Bds., p. 72, 1862—Peru; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 185—San Antonio (above Cosnipata), Peru; Taczanowski, l.c., 1874, p. 514—Paltaypampa, Dept. Junín; idem, l.c., 1882, p. 12—Ray-urmana, Achamal, and Chirimoto, Peru; idem, Orn. Pér., **2**, p. 479, 1884—Peru ("vicinity of Lima," Paltaypampa, Huayabamba, San Antonio); Sclater, Cat. Bds. Brit. Mus., **11**, p. 141, 1886—Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Garita del Sol, Vitoc; idem, Orn., **13**, p. 110, 1906—Huaynapata, Marcapata; Ménégau, Rev. Franç. d'Orn., **2**, p. 10, 1911—Utcubamba, Dept. Libertad.

*Iridosornis analis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1043, 1912—Peru (Huayabamba to Marcapata); Chapman, Bull. U. S. Nat. Mus., **117**, p. 119, 1921—Idma, Urubamba.

*Iridosornis analis analis* Zimmer, Field Mus. Nat. Hist., Zool. Ser., **17**, p. 443, 1930—Huachipa and Chinchao, Dept. Huánuco (crit.).

*Range*.—Tropical and Subtropical zones of eastern Peru, from the Huayabamba Valley in the north to the Marcapata Valley on the confines of Bolivia.<sup>2</sup>

5: Peru (Huachipa, 1; Chinchao, 4).

*Iridosornis analis porphyrocephala* (Sclater).<sup>3</sup> NORTHERN  
YELLOW-THROATED IRIDOSORNIS.

*Iridornis porphyrocephala* Sclater, Proc. Zool. Soc. Lond., **23**, "1855," p. 227, pl. 110, pub. Feb., 1856—"in Nova Grenada et rep. Equatoriana" (type, from the "Vicinity of Quito," in coll. of J. Gould, now in the British Museum); idem, l.c., **24**, p. 243, 1856—"New Grenada" and Ecuador (vicinity

<sup>1</sup> Tschudi's statement (l.c., p. 206) that this species was not uncommon in the orchards around Lima is clearly a mistake. We suggest Valley of Vitoc, Dept. of Junín, as an appropriate type locality.

<sup>2</sup> Birds from various parts of Peru show no constant local variation.

*Additional material examined*.—Peru: Huayabamba, 2; Utcubamba, 1; Chilpes, 1; Utcuyacu, 1; Garita del Sol, Vitoc, 2; Huaynapata, 1; Santo Domingo, 2.

<sup>3</sup> *Iridosornis analis porphyrocephala* (Sclater) merely differs from the nominate race by more decidedly bluish pileum and hind neck, bluish green interscapular region, and mainly slate olive, anteriorly blue-tinged under parts with just a few buffy feathers along the abdominal line, whereas in *I. a. analis* breast and abdomen are deep buff, laterally shaded with olive gray or brownish.

Specimens from Colombia agree with Ecuadorian ones.

*Material examined*.—Colombia: San Antonio, 6; Cerro Munchique, 1; Cocal, 2; Medellín, 1; Santa Elena, 1.—Ecuador: Intag, 2; "Quito," 4.

of "Quito"); idem, Cat. Coll. Amer. Bds., p. 72, 1862—Ecuador; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 500—Medellin, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 141, 1886—Ecuador ("Quito," Intag) and Colombia (Medellin, Antioquia).

*Iridosornis porphyrocephala* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1043, 1912—Colombia (Medellin, Santa Elena) and Ecuador ("Quito," Intag); Chapman, Bull. Amer. Mus. N. H., 36, p. 602, 1917—western Andes of Colombia (Nóvita Trail, San Antonio, Cerro Munchique, Cocal); idem, l.c., 55, p. 667, 1926—"Quito," Ecuador.

*Range*.—Subtropical zone of western Colombia (western and central Andes) and western Ecuador.

### Genus DELOTHRAUPIS Sclater

*Delothraupis* Sclater, Cat. Bds. Brit. Mus., 11, p. 142, 1886—type, by monotypy, *Calliste castaneoventris* Sclater.

#### \**Delothraupis castaneoventris* (Sclater). CHESTNUT-BELLIED TANAGER.

*Calliste castaneoventris* Sclater, Contrib. Orn., 1851, p. 61—Bolivia (type in Derby Collection, now in Liverpool Museum).

*Piproeidea castaneoventris* Sclater, Tanag. Cat. Specif., p. 13, 1854—Bolivia.

*Pipridea castaneiventris* Sclater, Proc. Zool. Soc. Lond., 24, p. 266, 1856—Bolivia (diag.); Taczanowski, l.c., 1874, p. 518—Sillapata and Maraynioc, Dept. Junín, Peru; Sclater and Salvin, l.c., 1879, p. 598—Tiltilo, Yungas, Bolivia; Taczanowski, Orn. Pér., 2, p. 451, 1884—Peru (Maraynioc, Sillapata, Pumamarca; Quebrada de San Gaban, Carabaya).

*Delothraupis castaneiventris* Sclater, Cat. Bds. Brit. Mus., 11, p. 142, 1886—Peru and Bolivia; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Pariayacu and Culumachay (Maraynioc), Dept. Junín, Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1043, 1912—southern Peru and Bolivia (Tiltilo, Unduavi, Sandillani, Cocapata, Quebrada Onda).

*Delothraupis castaneoventris* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 443, 1930—mountains near Huánuco and Panoa, Dept. Huánuco, Peru (crit.).

*Delothraupis castaneiventris peruvianus* Carriker, Proc. Acad. Nat. Sci. Phila., 87, p. 358, Oct., 1935—Aquiamarca, Dept. Junín, Peru (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Temperate zone of southern Peru (from Huánuco southwards) and Bolivia (depts. of La Paz and Cochabamba).<sup>1</sup>

6: Peru (mountains near Huánuco, 1; Panoa, 5).

<sup>1</sup> Peruvian birds are on average larger and slightly darker chestnut underneath, while the upper surface is rather brighter with the whitish superciliary streak less conspicuous. These divergencies are, however, quite insignificant.

*Additional material examined*.—Peru: Maraynioc, 4.—Bolivia: Unduavi, 1; Sandillani, 3; Cocapata, 1; Incachaca, 3; Quebrada Onda, 2.

Genus **STEPHANOPHORUS** Strickland

*Stephanophorus* Strickland, Proc. Zool. Soc. Lond., 9, p. 30, Oct., 1841—type, by monotypy, *Pyrrhula coerulea* Vieillot=*Tanagra diademata* Mikan.

*Bergia* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 86, Jan., 1901—type, by monotypy, *Bergia solanorum* Bertoni=*Tanagra diademata* Temminck.

\***Stephanophorus diadematus** (Temminck). WHITE-CAPPED TANAGER.

*Tanagra leucocephala* (not of Gmelin, 1789) Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 408, 1819—based on "Lindo azul cabeza blanca" Azara, No. 93; Caiho, Paraguay.

*Pyrrhula caerulea* (not *P. coerulea* Daudin, 1799) Vieillot, Gal. Ois., 1, (2), livr. 20, p. 61, pl. 54, Nov., 1822—Brazil (type in coll. of M. Bonjour, Paris).

*Tanagra diademata* (Natterer MS.) Temminck, Nouv. Rec. Pl. Col., livr. 41, pl. 243, Dec., 1823—Brazil (type in Leiden Museum); Mikan, Del. Fl. Faun. Bras., fasc. 4, pl. [24], 1825—"ad Lança, Curitiba, St. Luiz et aliis locis capitaniae St. Paulo."

*Stephanophorus caeruleus* Strickland, Proc. Zool. Soc. Lond., 9, p. 31, 1841; Burmeister, Syst. Ueber. Th. Bras., 3, p. 205, 1856—Nova Friburgo, Rio; idem, Journ. Orn., 8, p. 253, 1860—Paraná; idem, Reise La Plata St., 2, p. 480, 1861—near Paraná; Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio.

*Stephanophorus leucocephalus* Sclater, Proc. Zool. Soc. Lond., 24, p. 241, 1856—São Paulo, Uruguay, and Paraguay (monog.); idem, Cat. Coll. Amer. Bds., p. 73, 1862—Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, pp. 161, 632—Conchitas, Buenos Aires; Hudson, l.c., 1870, p. 114—Buenos Aires (habits); Pelzeln, Orn. Bras., 3, p. 208, 1870—São Paulo (Mugy das Cruzes, São Paulo) and Paraná (Lanza, Curitiba, São Luiz, Porcos de Riva); Durnford, Ibis, 1877, p. 170—Buenos Aires (food); White, Proc. Zool. Soc. Lond., 1882, p. 597—Concepción, Misiones; Barrows, Bull. Nutt. Orn. Cl., 8, p. 90, 1883—Concepción del Uruguay, Entre Ríos (habits); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 118, 1885—Taquara do Mundo Novo and Arroio Grande, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 143, 1886—southern Brazil (Nova Friburgo, Curitiba, São Paulo, "Rio Claro, Goyáz"), Uruguay (Campana), and Argentina (Buenos Aires, Conchitas); Sclater and Hudson, Arg. Orn., 1, p. 38, pl. 4, 1888—Argentina (habits, nest and eggs); Aplin, Ibis, 1893, p. 284—Rio Negro, Uruguay; idem, Ibis, 1894, p. 167—Arroyo Grande and Rio Negro, Uruguay; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Rio Grande do Sul (Mundo Novo, Pedras Brancas); idem, Rev. Mus. Paul., 3, p. 149, 1899—São Paulo, Piquete; idem, l.c., 4, p. 153, 1900—Nova Friburgo and Cantagallo, Rio de Janeiro; Lillo, Anal. Mus. Hist. Nat. Buenos Aires, 8, p. 175, 1902—Tucumán (seen, not obtained); idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—Tucumán (seen, not obtained); Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1905—Retiro do Ramos and Morro Redondo, Itatiaya; Ihering and Ihering, Cat. Faun. Braz., 1, p. 355, 1907—São Paulo (Piquete, Itararé, Campos



de Jordão, Itatiaya) and Rio Grande do Sul (Novo Hamburgo); Lüderwaldt, Zool. Jahrb. (Syst.), 27, p. 357, 1909—Itatiaya; Hartert and Venturi, Nov. Zool., 16, p. 171, 1909—Barracas al Sud, Buenos Aires (nest and eggs); Dabbene, Anal. Mus. Hist. Nat. Buenos Aires, 18, p. 375, 1910 (range in Argentina); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1044, 1912 (range); Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 486, 499, 1912—Vera Guarany, Paraná; Bertoni, Faun. Parag., p. 62, 1914—Alto Paraná, Paraguay; Hussey, Auk, 33, p. 397, 1916—La Plata; Ménégaux, Rev. Franç. d'Orn., 10, p. 7, 1919—Villa Lutetia, Misiones; Ribeiro, Arch. Mus. Nac. Buenos Aires, 24, p. 254, 1923—Retiro de Ramos, Itatiaya; Velho, l.c., 24, p. 263, 1923—Monte-Serrat, Itatiaya; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 656, 1924—Prov. Buenos Aires; Pereyra, El Hornero, 3, p. 427, 1926—Punta Lara and Conchitas, Buenos Aires.

*Stephanophorus diadematus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1147, 1912 (nomencl.); Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay (Minas, Trienta y Tres, Rocha, Cerro Largo); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 192, 1926—Cará Pintada, Paraná; Wetmore, Bull. U. S. Nat. Mus., 133, p. 394, 1926—Uruguay (La Paloma, San Vicente, Lazcano, Rio Negro) (habits, song); Pereyra, El Hornero, 4, p. 27, 1927—Punta Lara and Conchitas, Buenos Aires; Holt, Bull. Amer. Mus. N. H., 57, p. 320, 1928—Serra do Itatiaya, Brazil.

*Bergia solanorum* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 86, Jan., 1901—Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

*Range.*—Southeastern Brazil, from Rio de Janeiro<sup>1</sup> to Rio Grande do Sul; Uruguay; Paraguay; northeastern Argentina (prov. Misiones, Corrientes, Entre Ríos, and Buenos Aires, possibly also in Santa Fé and (?) Tucumán).<sup>2</sup>

14: Uruguay (Arazati, on coast south of Santa Ecilda, San José, 3; Estancia "El Corte," near San Carlos, Maldonado, 1; Passo de las Avarias, Rio Cebollati, Minas, 3; Rio Uruguay, southwest of Dolores, Soriano, 4; San Vicente de Castillos, Rocha, 3).

### Genus POECILOTHRAUPIS Cabanis

*Anisognathus* (not *Anisognatha* Lacordaire, 1848) Reichenbach, Av. Syst. Nat., pl. 77, June 1, 1850—type, by subs. desig. (Bonaparte, Rev. Mag. Zool., (2), 3, p. 172, 1851), *Tanagra igniventris* Lafresnaye and d'Orbigny.

*Poecilothraupis* Cabanis, Mus. Hein., 1, p. 30, Oct., 1851—type, by monotypy, *Tanagra igniventris* Lafresnaye and d'Orbigny.

<sup>1</sup> The record from "Rio Claro, Goyáz" is due to confusion with a place of the same name in São Paulo.

<sup>2</sup> *Additional specimens examined.*—Brazil: Colonia Alpina, Serra dos Orgãos, Rio, 1; São Paulo, 1; Paraná, Lanza, 1; São Luiz, 1; Porcos de Riva, 1; Curytiba, 7; Rio Grande do Sul, 7.

**\*Poecilothraupis igniventris lunulata** (Du Bus). SCARLET-NECKED TANAGER.

*Tanagra lunulata* Du Bus, Bull. Acad. Roy. Bruxelles, 6, Part 1, No. 5, p. 439, with col. pl., May, 1839—"la province d'Honduras," errore, = Bogotá, Colombia (type in coll. of B. Du Bus, now in Brussels Museum); idem, Esq. Orn., livr. 1, pl. 4, 1845—Colombia.

*Tanagra* (*Euphonia?*) *constantii* Boissonneau, Rev. Zool., 3, No. 1, p. 3, Jan., 1840—Santa-Fé-de-Bogotá, Colombia (location of type unknown).

*Anisognathus lunulatus* Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—Bogotá.

*Poecilothraupis lunulata* Sclater, Proc. Zool. Soc. Lond., 24, p. 241, 1856—part, New Grenada, Bogotá; idem, Cat. Coll. Amer. Bds., p. 72, 1862—part, spec. c, Bogotá; Wyatt, Ibis, 1871, p. 325—Vetas, Santander, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 144, 1886—part, subsp. typica, Bogotá; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1044, 1912—Colombia (Bogotá) and "eastern Ecuador" (errore).

*Poecilothraupis lunulata lunulata* Chapman, Bull. Amer. Mus. N. H., 36, p. 602, 1917—eastern Andes of Colombia (El Piñon, Chipaque, Choachi, La Porquera, La Mar, La Pradera).

*Range*.—Temperate zone of the eastern Andes of Colombia (in states of Santander and Cundinamarca).<sup>1</sup>

6: Colombia (La Porquera, above La Pradera, Cundinamarca, 2; Ramirez, Santander, 2; Bogotá, 2).

**\*Poecilothraupis igniventris erythrotus** (Jardine and Selby).<sup>2</sup> BLACK-VENTED TANAGER.

*Aglaia erythrotus* Jardine and Selby, Illust. Orn., (n.s.), Part 7, pl. 36,<sup>3</sup> 1840—"somewhere near or in the district of Buenos Ayres," errore; we suggest Andes near Quito, Ecuador (type in coll. of Mr. Carfrae, Edinburgh).

*Poecilothraupis atricrissa* Cabanis, Journ. Orn., 14, p. 165, 1866—"Equador" (type in Berlin Museum); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 16, 1899—El Troje (Huaca), "Nanegal," Frutillas, and Papallacta; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Lloa and above Nono.

<sup>1</sup> Additional material examined.—Colombia: Bogotá, 22.

<sup>2</sup> *Poecilothraupis igniventris erythrotus* (Jardine and Selby): Similar to *P. i. lunulata*, but under tail coverts uniform black or with mere traces of scarlet apical fringes. There is no difference whatever between specimens from the western and others from the eastern slope.

Additional material examined.—Ecuador: Andes near Quito, 9; Nono, 1; "Gualea," 1; Guaillabamba, 2; south of Oña, 2; Cuenca, 2; Papallacta, 5; San Rafael, 3; Riobamba, 1; Baños, 1.

<sup>3</sup> The plate shows uniform black anal region and under tail coverts, and in the text it is expressly stated that "the belly is of the same intense and clear colour [crimson like the postauricular spot], commencing at the breast and ceasing immediately beyond the insertion of the legs." The name *erythrotus* having priority by many years, must, therefore, be adopted in place of *atricrissa* for the Ecuadorian race.

*Tanagra lunulata* (not of Du Bus) Jardine, Edinb. New Phil. Journ., (n.s.), 3, p. 91, 1856—Andes east of Quito.

*Poecilothraupis lunulata* Sclater, Proc. Zool. Soc. Lond., 24, p. 241, 1856—part, Andes near Quito, Ecuador; idem, l.c., 26, p. 551, 1858—Matos; idem, l.c., 28, pp. 76, 86, 1860—Lloa, Calacali, and above Puellaro; idem, Cat. Coll. Amer. Bds., p. 72, 1862—part, spec. a, b, Matos, Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 289—Cechce; Goodfellow, Ibis, 1901, p. 464—Pichincha, environs of Quito, and Papallacta.

*Poecilothraupis lunulata atricrissa* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 80—San Rafael (crit.); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 98, 1911—San Gabriel, Nono Ligui, Pongo, and Valley of Cuenca; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1044, 1912—Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 667, 1926—Hacienda Garzón, Pichincha, Yanacocha, Bestión, Taraguacocha, Papallacta, and Oyacachi; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Cerro Mojanda and Papallacta; idem, l.c., (2), 4, p. 626, 1932—Las Palmas and El Portete de Tarquí.

*Poecilothraupis lunulata* subsp. *atricrissa* Sclater, Cat. Bds. Brit. Mus., 11, p. 145, 1886—Ecuador (Matos, Lloa, "Quito," San Lucas).

*Trichothraupis quadricolor* (errore) Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—"Pichincha" and "near Quito."

*Range*.—Temperate zone of both slopes of the Andes of Ecuador. 3: Ecuador (Hoyaucshi, 2; unspecified, 1).

**\**Poecilothraupis igniventris ignicrissa* Cabanis.<sup>1</sup> PERUVIAN SCARLET-VENTED TANAGER.**

*Poecilothraupis ignicrissa* Cabanis, Journ. Orn., 21, p. 317, 1873—Maraynioc, Dept. Junín, Peru (type in Berlin Museum); Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Maraynioc; idem, l.c., 1882, p. 13—Tamiapampa; idem, Orn. Pér., 2, p. 482, 1884—Maraynioc, Chachapoyas, and Tamiapampa.

<sup>1</sup>*Poecilothraupis igniventris ignicrissa* Cabanis: Nearest to *P. i. lunulata*, but under tail coverts mostly red, and under parts slightly lighter scarlet; similar also to *P. i. igniventris*, but deeper black above with the larger wing coverts, primary coverts, and remiges plain black or very nearly so, and under tail coverts partly black.

Berlepsch, when describing *P. l. intercedens*, did not mention *P. l. ignicrissa*, but merely stated the differences from *P. l. lunulata*. On comparing a series from northern Peru with two topotypes from Maraynioc, I fail to perceive any character by which the two forms could be separated. While the wings—excepting the blue humeral patch—are as a rule plain black, some specimens have distinct traces of bluish edges on the remiges and greater wing coverts, thus forming the transition to *P. i. igniventris*, to which the present race, furthermore, shows an undeniable approach by the somewhat less intensely colored under parts.

*Additional specimens examined*.—Peru: Tamiapampa, 2; Chachapoyas, 1; Leimabamba, 2; Levanto, 5; Cumpang, 2; Maraynioc, Junín, 2.

*Tanagra igniventris* (not of Lafresnaye and d'Orbigny) Tschudi, Arch. Naturg., 10, (1), p. 287, 1844—Peru; idem, Unters. Faun. Peru., Aves, pp. 205, 206, 1846—Maraynioc.

*Poecilothraupis lunulata* (not *Tanagra lunulata* Du Bus) Sclater, Proc. Zool. Soc. Lond., 24, p. 241, 1856—part, Cordilleras of Peru; idem, Cat. Bds. Brit. Mus., 11, p. 144, 1886—part, Peru.

*Poecilothraupis igniventris ignicrissa* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Maraynioc.

*Poecilothraupis lunulata ignicrissa* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1045, 1912—Maraynioc, Vitoc, Peru; Ménégau, Rev. Franc. d'Orn., 2, p. 10, 1911—Cumpang, Dept. Libertad.

*Anisognathus lunulatus ignicrissus* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 444, 1930—mountains above Huánuco and Panao, Dept. Huánuco, Peru (crit.).

*Poecilothraupis lunulata intercedens* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1044, 1135, 1912—northern Peru (type, from Leimabamba, in coll. of H. von Berlepsch, now in Frankfurt Museum).

*Range.*—Temperate zone of northern and central Peru, from depts. of Cajamarca and Amazonas south to Junín.

13: Peru (Levanto, 1; mountains east of Balsas, 1; Huánuco Mountains, 10; Panao Mountains, 1).

***Poecilothraupis igniventris igniventris* (Lafresnaye and d'Orbigny). BOLIVIAN SCARLET-VENTED TANAGER.**

*Aglaia igniventris* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Yungas, Bolivia (type from Apolobamba in Paris Museum examined).

*Tanagra igniventris* d'Orbigny, Voy. Amér. Mérid., Ois., p. 275, pl. 25, fig. 2, 1839—Apolobamba.

*Poecilothraupis igniventris* Sclater, Proc. Zool. Soc. Lond., 24, p. 242, 1856—Bolivia (diag.); Sclater and Salvin, l.c., 1874, pp. 677, 678—Ccachupata, Dept. Cuzco, Peru (crit.); idem, l.c., p. 600, 1879—Apolobamba and Tilotilo, Bolivia; Taczanowski, Orn. Pér., 2, p. 482, 1884—Peru (Ccachupata and Quebrada de San Gaban, Carabaya); Sclater, Cat. Bds. Brit. Mus., 11, p. 145, 1886—Bolivia (Tilotilo) and Peru (Ccachupata); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1045, 1912—southeastern Peru (Ccachupata, Paucartambo, Marcapata) and Bolivia (Apolobamba, Tilotilo, Unduavi, Sandillani, Cillutincara, Cocapata); Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—above Matchu Picchu, Urubamba, Peru (crit.); Hellmayr, Nov. Zool., 30, p. 237, 1923—Apolobamba, Bolivia (note on type).

*Range.*—Temperate zone of southeastern Peru (Urubamba and Carabaya regions) and Bolivia (depts. of La Paz and Cochabamba).<sup>1</sup>

<sup>1</sup> Specimens from southeastern Peru are identical with a Bolivian series.

*Material examined.*—Bolivia: near Aceramarca (alt. 8,000–10,000 feet), 2; Incachaca, Dept. Cochabamba, 4; Pucyuni, 2; Cocapata, 7; Sandillani, 2; Un-



**\*Poecilothraupis lacrymosa melanogenys** Salvin and Godman.<sup>1</sup>  
BLACK-CHEEKED TANAGER.

*Poecilothraupis melanogenys* Salvin and Godman, Ibis, (4), 4, p. 120, pl. 3, 1880—near San Sebastian, Santa Marta region, Colombia (types in Salvin-Godman Collection, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 147, 1886—Templado and San Sebastian; Bangs, Proc. Biol. Soc. Wash., 12, p. 179, 1898—Macotama; idem, l.c., 13, p. 104, 1899—Sierra Nevada of Santa Marta, 7,500 to (?)12,000 feet, Colombia; Allen, Bull. Amer. Mus. N. H., 13, pp. 120, 169, 1900—El Libano and San Lorenzo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1046, 1912—Santa Marta Mountains (San Sebastian, San Lorenzo, El Libano, "Páramo de Macotama"); Todd and Carriker, Ann. Carnegie Mus., 14, p. 495, 1922—El Libano, San Lorenzo, Heights of Chirua, San Miguel, and Sierra Nevada de Santa Marta (habits).

*Range*.—Subtropical and Lower Temperate zones of the Santa Marta Mountains, northern Colombia.

2: Colombia (San Lorenzo, 2).

**\*Poecilothraupis lacrymosa melanops** Berlepsch.<sup>2</sup> BLACK-FACED TANAGER.

*Poecilothraupis palpebrosa melanops* Berlepsch, Orn. Monatsber., 1, p. 11, 1893—Mérida, Venezuela (type in collection of H. von Berlepsch, now in Frankfurt Museum); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1046, 1912—Andes of Mérida.

*Poecilothraupis lacrymosa* (not *Tanagra palpebrosa* Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida; Sclater, Cat. Bds. Brit. Mus., 11, p. 146, 1886—part, spec. a, Mérida, Venezuela.

*Range*.—Subtropical zone of western Venezuela (Sierra of Mérida).

3: Venezuela (Culata, Mérida, 1; La Cuchilla, Mérida, 1; Rio Mucujón, 1).

duavi, 3; Cillutincara, 3; Kassiri, 1.—Peru: Paucartambo, 1; Marcapata Valley (alt. 9,800 feet), 11.

<sup>1</sup> *Poecilothraupis lacrymosa melanogenys* Salvin and Godman, a very distinct form, differs from the other races by pale blue (near grayish blue-violet) pileum; deep black sides of the head; green-blue slate (duller in the female) instead of mainly blackish brown back and rump (the latter not dull violaceous blue); much clearer (lemon chrome) under parts, etc. There is no trace of a yellow post-auricular spot. Wing, 95, (female) 91; tail, 86, (female) 80; bill, 15.

Notwithstanding its strongly marked color characters and somewhat stouter bill, *P. l. melanogenys* seems to fit well into the specific group related to *P. lacrymosa*.

<sup>2</sup> *Poecilothraupis lacrymosa melanops* Berlepsch: Very similar to *P. l. palpebrealis*, but pileum decidedly, and sides of the head slightly darker, more blackish; back also slightly darker; under parts conspicuously paler, primuline yellow rather than yellow ocher.

*Additional material examined*.—Venezuela: Sierra of Mérida, 12.

\**Poecilothraupis lacrymosa palpebrosa* (Lafresnaye). ORANGE-BELLIED TANAGER.

*Tanagra palpebrosa* Lafresnaye,<sup>1</sup> Rev. Zool., 10, p. 71, 1847—Pasto "in Peruvia"—Colombia (type in coll. of T. B. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899).

*Anisognathus lacrimosus* (not *Tachyphonus lacrimosus* Du Bus) Selater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—Bogotá.

*Poecilothraupis lacrimosa* Selater, Proc. Zool. Soc. Lond., 24, p. 242, 1856—part, descr. and habitat Colombia (Pasto, Bogotá); idem, Cat. Coll. Amer. Bds., p. 73, 1862—New Granada.

*Poecilothraupis palpebrosa* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 80—San Rafael, east side of Volcan Tunguragua, eastern Ecuador; Selater, Cat. Bds. Brit. Mus., 11, p. 146, 1886—part, spec. b, c, d, i-l, Colombia (Bogotá) and Ecuador (San Lucas, "Quito"); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 16, 1899—Pun and Papallacta, Ecuador; Goodfellow, Ibis, 1901, p. 465—Papallacta; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 99, 1911—Oyacachi, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1045, 1912—Colombia ("Bogotá" and Pasto); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Huila, Ecuador.

*Poecilothraupis palpebrosa palpebrosa* Chapman, Bull. Amer. Mus. N. H., 36, p. 602, 1917—Colombia (Andes west of Popayán, western Andes; Almaguer, Laguneta, and Santa Isabel, central Andes); idem, l.c., 55, p. 668, 1926—eastern Ecuador (upper Rio Upano, upper Sumaco, above Baeza, Oyacachi).

[*Poecilothraupis palpebrosa*] subsp. *coerulescens* (Berlepsch MS.) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 80 (in text)—San Rafael, Ecuador (type in Warsaw Museum).

*Poecilothraupis palpebrosa caerulescens* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1046, 1135, 1912—part, Ecuador ("Quito," San Lucas, Papallacta, Oyacachi, Baños, San Rafael); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—Papallacta.

*Poecilothraupis lachrymosa palpebrosa* Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 37, 1933 (crit.).

*Range*.—Temperate zone of Colombia (except Santa Marta region and northern parts of central and western Andes) and eastern Ecuador.<sup>2</sup>

2: Colombia (Coast range west of Popayán, Cauca, 2).

<sup>1</sup> The type was collected by Adolphe Delattre at Pasto, erroneously ascribed to Peru instead of to Colombia. The description, "supra ardesiaca" and "subtus tota maculâ palpebrae inferae aliaque majore postoculari aurantio flavis," leaves no doubt as to its referring to the Colombian form with dusky (not bluish-tinged) upper parts, deep yellow ventral surface, and a large bright yellow spot on the sides of the neck.

<sup>2</sup> In the absence of fresh material I am not quite certain that birds from the eastern Andes of Colombia are really identical with those from the western Cordillera. Three old "Bogotá" skins have the cheeks and auriculars decidedly

**Poecilothraupis lacrymosa olivaceiceps** Berlepsch.<sup>1</sup> OLIVE-HEADED TANAGER.

*Poecilothraupis palpebrosa olivaceiceps* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1045, 1135, 1912—Santa Elena, Antioquia, Colombia (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); Chapman, Bull. Amer. Mus. N. H., 36, p. 602, 1917—Paramillo, north end of western Andes, Colombia.

*Poecilothraupis lacrymosa olivaceiceps* Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 37, 1933 (crit.).

*Poecilothraupis palpebrosa* (not *Tanagra palpebrosa* Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 500—Santa Elena, Antioquia; Sclater, Cat. Bds. Brit. Mus., 11, p. 146, 1886—part, spec. e-h, Santa Elena; Pigué, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—La Camelia, near Angelopolis, western Andes, Colombia.

*Range*.—Temperate zone of the northern parts of the western and central Andes of Colombia (Paramillo; La Camelia, near Angelopolis; Santa Elena).

**Poecilothraupis lacrymosa** subsp.<sup>2</sup> BLUE-BACKED TANAGER.

*Poecilothraupis lacrymosa* (not *Tanagra lacrymosa* Du Bus) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 227—Tambillo, Peru.

more olivaceous (less blackish), and the pileum not quite so dark, and a fourth specimen has about as much olivaceous shading on the head as *P. l. olivaceiceps*.

Birds from eastern Ecuador, including one from San Rafael (topotypical *caerulescens*), agree with those from the west Colombian Andes in dusky (not olivaceous) sides of the head, but the post-auricular neck spot is smaller and of a paler yellow, while the upper back sometimes is slightly more bluish. The variation seems, however, too insignificant to justify the retention of an additional race.

*Additional material examined*.—Colombia: "Bogotá," 4; Laguneta, central Andes, 4; Andes west of Popayán, 4.—Ecuador: Papallacta, 7; Baños, Rio Pastaza (alt. 8,000 feet), 3; San Rafael, 1; unspecified, 1.

<sup>1</sup> *Poecilothraupis lacrymosa olivaceiceps* Berlepsch: Very similar to *P. l. palpebrosa*, but forecrown, superciliaries, and sides of head tinged with olivaceous; hind neck and back decidedly paler with a bluish cast; under parts lighter yellow.

Four specimens from Santa Elena may be distinguished by these characters, when compared with others from Laguneta and Popayán. One "Bogotá" skin, however, has just as much olivaceous shading on the top and sides of the head, which makes me suspect that the Rio Toché bird listed by Chapman as *P. p. olivaceiceps* might be merely an aberrant individual of *P. l. palpebrosa*.

<sup>2</sup> *Poecilothraupis lacrymosa* subsp.: Similar to *P. l. palpebrosa*, but crown and back decidedly tinged with bluish, most strongly so on the pileum, and under parts paler, less orange. In general coloration of both upper and under parts, the single bird from Cutervo that we have been able to examine resembles *P. l. lacrymosa*, but lacks all trace of the yellow post-auricular neck-spot. If really separable and not merely an intergrade, this form requires a new name, since *P. p. caerulescens* bestowed upon it by Berlepsch in 1912 is invalidated by the earlier use of the same term by Taczanowski and Berlepsch in 1885 for the east Ecuadorian birds, which I consider to be inseparable from *P. l. palpebrosa*.

*Material examined*.—Peru: Cutervo, 1.

*Poecilothraupis palpebrosa* (not *Tanagra palpebrosa* Lafresnaye) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 194—Cutervo and Tambillo, Peru; idem, Orn. Pér., 2, p. 480, 1884—Peru (Tambillo, Cutervo, Paucal); Sclater, Cat. Bds. Brit. Mus., 11, p. 146, 1886—part, spec. m, Cutervo.

*Poecilothraupis palpebrosa palpebrosa* Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 626, 1932—Las Palmas, Cuenca, Ecuador.

*Poecilothraupis palpebrosa caerulescens* (not of Taczanowski and Berlepsch, 1885) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1046, 1135, 1912—part, Cutervo, Peru (type in coll. of H. von Berlepsch, now in Frankfort Museum); Chapman, Bull. Amer. Mus. N. H., 55, p. 668, 1926—Taraguacocha and Loja, southwestern Ecuador; Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 37, 1933—Leimabamba, Peru (crit.).

*Range*.—Temperate zone of southwestern Ecuador, in provinces of Azuay, El Oro, and Loja, and northwestern Peru, south to depts. of Cajamarca (Paucal, Tambillo, Cutervo) and Amazonas (Leimabamba).

***Poecilothraupis lacrymosa lacrymosa* (Du Bus).<sup>1</sup> JUNÍN TANAGER.**

*Tachyphonus lacrymosus* Du Bus, Esq. Ornith., livr. 2, pl. 10, 1846—Pure (type in Brussels Museum).

*Poecilothraupis lacrimosa* Sclater, Proc. Zool. Soc. Lond., 24, p. 242, 1856—part, eastern Peru; Cabanis, Journ. Orn., 21, p. 317, 1873—Maraynioc (crit.).

*Poecilothraupis lacrymosa* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Maraynioc and Higos, Peru.

*Poecilothraupis lacrymosa* Taczanowski, Orn. Pér., 2, p. 481, 1884—Maraynioc; Sclater, Cat. Bds. Brit. Mus., 11, p. 146, 1886—Higos; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Maraynioc; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1046, 1912—central Peru (Maraynioc, Chilpes, Higos); Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Cumpang, near Tayabamba, Peru.

*Poecilothraupis lacrymosa lacrymosa* Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 37, 1933—Dept. Junín (crit.).

*Range*.—Temperate zone of eastern Peru, from Dept. Libertad (Cumpang, east of Tayabamba) south to Junín (Maraynioc, Higos, Chilpes).

<sup>1</sup> *Poecilothraupis lacrymosa lacrymosa* (Du Bus) differs from the preceding races by the absence of the yellow post-auricular neck-spot. It resembles therein *P. l. melanogenys*, but may be readily distinguished from the Santa Marta form by much less bluish dorsal surface, blackish brown rather than deep black sides of the head, and much deeper yellow under parts. Specimens from Libertad agree with others from Maraynioc.

*Material examined*.—Peru: Cumpang (east of Tayabamba), Libertad, 3; Maraynioc, Junín, 2.



Genus **BUTHRAUPIS** Cabanis

*Buthraupis* Cabanis, Mus. Hein., 1, p. 29, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 73, 1855), *Aglaiia montana* Lafresnaye and d'Orbigny.

*Cnemathraupis* Penard,<sup>1</sup> Auk, 36, p. 538, 1919—type, by orig. desig., *Tanagra eximia* Boissonneau.

**Buthraupis montana montana** (Lafresnaye and d'Orbigny).  
SILVERY-NAPED MOUNTAIN TANAGER.

*Aglaiia montana* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Yungas, Bolivia (type from Carcuata, Yungas, in Paris Museum examined).

*Tanagra montana* d'Orbigny, Voy. Amér. Mérid., Ois., p. 275, pl. 23, fig. 1, 1839—Mount Biscachal, near Carcuata, Yungas, Bolivia.

*Buthraupis montana* Sclater, Proc. Zool. Soc. Lond., 24, p. 239, 1856—Yungas, Bolivia (diag.); Sclater and Salvin, l.c., 1879, p. 600—Carcuata, Ramosani, and Tilotilo, Yungas [of La Paz], Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 148, 1886—Tilotilo and Ramosani, Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1046, 1912—Bolivia (Tilotilo, Ramosani, Cocapata, San Cristóbal, Pucyuni, Chaco, Cillutincara, Sandillani, Tanampaya, Pasana, Biscachal near Carcuata); Hellmayr, Nov. Zool., 30, p. 236, 1923—Carcuata, Bolivia (note on type).

*Range*.—Temperate zone of Bolivia (Yungas of La Paz).<sup>2</sup>

**Buthraupis montana saturata** Berlepsch and Stolzmann.<sup>3</sup> SOUTH  
PERUVIAN MOUNTAIN TANAGER.

*Buthraupis cucullata saturata* Berlepsch and Stolzmann, Ornith., 13, pp. 80, 110, 1906—Idma (Urubamba) and Marcapata, Dept. Cuzco, Peru (type, from Idma, in coll. of Count Branicki, now in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 184, 1927); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1047, 1912—south-eastern Peru ("Santa Ana" [=Idma], Huasampilla, "Cosnipata," Marcapata); Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—Occobamba Valley and Torontoy, Urubamba, Peru.

<sup>1</sup> I do not see any necessity for the generic separation of *T. eximia*, the existing structural divergences being, in my opinion, good specific characters.

<sup>2</sup> *Material examined*.—Bolivia: Pucyuni, 2; Cocapata, 5; San Cristóbal, 6; Sandillani, 3; Tanampaya, 1; Pasana, 2; Chaco, 2; Cillutincara, 2; Carcuata, 1.

<sup>3</sup> *Buthraupis montana saturata* Berlepsch and Stolzmann: Nearest to *B. m. cucullata*, but blue of upper parts brighter and less violaceous; black of head more restricted both above and below; yellow of under surface somewhat deeper; bill smaller. Wing (male), 130; tail, 89; bill, 31.

By the brighter blue dorsal surface with shorter black hood and the smaller bill this race connects the "*cucullata*" group with *B. montana*, but lacks the silvery blue nuchal collar, which forms such a striking feature in the Bolivian bird.

*Material examined*.—Peru: Marcapata Valley (alt. 10,000 feet), 2; Limbani, Carabaya, 2.

*Buthraupis cucullata* (not *Tanagra cucullata* Jardine and Selby) Scater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 185, 186—Huasampilla, Dept. Cuzco; idem, l.c., 1873, p. 780—Huasampilla (crit.); Taczanowski, Orn. Pér., 2, p. 483, 1884—part, Huasampilla and "Cosnipata"; Scater, Cat. Bds. Brit. Mus., 11, p. 148, 1886—part, spec. k, l, Huasampilla.

*Range*.—Temperate zone of southeastern Peru, in Dept. of Cuzco (Huasampilla, Idma, Occobamba Valley, Torontoy, Marcapata Valley).

\****Buthraupis montana cyanonota* Berlepsch and Stolzmann.<sup>1</sup>**  
BLUE-BACKED MOUNTAIN TANAGER.

*Buthraupis cucullata cyanonota* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 342—Maraynioc, Dept. Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 184, 1927); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1047, 1912—northern and central Peru (Leimabamba, Maraynioc, Montañas de Pangoa, Santiago); Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Cumpang, east of Tayabamba, Dept. Libertad.

*Buthraupis cucullata* (not *Tanagra cucullata* Jardine and Selby) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 513—Maraynioc and Higos, Dept. Junín; idem, Orn. Pér., 2, p. 483, 1884—part, Maraynioc and Montañas del Pangoa, Santiago; Scater, Cat. Bds. Brit. Mus., 11, p. 148, 1886—part, spec. j, Higos.

*Range*.—Temperate zone of northern and central Peru, from Dept. Amazonas (Leimabamba) south to Junín.

1: Peru (Cumpang, near Tayabamba, Libertad, 1).

***Buthraupis montana cucullata* (Jardine and Selby).** HOODED MOUNTAIN TANAGER.

*Tanagra cucullata* Jardine and Selby, Illust. Orn., (n.s.), Part 8, pl. 43, 1842—"supposed to have been received from the vicinity of Buenos Ayres or Bolivia," errore; we suggest Andes of Quito, Ecuador (type in coll. of Mr. Carfrae, Edinburgh).<sup>2</sup>

*Buthraupis cucullata* Scater, Proc. Zool. Soc. Lond., 24, p. 239, 1856—part, descr. and hab. Ecuador (vicinity of Quito); idem, Cat. Coll. Amer. Bds., p. 73, 1862—part, spec. c, Ecuador; Scater and Salvin, Proc. Zool. Soc.

<sup>1</sup> *Buthraupis montana cyanonota* Berlepsch and Stolzmann is apparently very close to *B. m. saturata*, from which it seems to differ by somewhat duller blue dorsal surface with the black of the head more extended, less intensely yellow under parts, and larger bill. Wing, 141, (female) 131; tail, 93½, (female) 88; bill, 32-33.

Not having at present any examples of this race, we are unable to give a more satisfactory diagnosis of its distinguishing characters.

<sup>2</sup> The collection of Mr. Carfrae also supplied the type of *Aglaia erythrotus* likewise ascribed to the "district of Buenos Aires," which we have shown to be an earlier name for *Poecilothraupis igniventris atricrissa* Cabanis, another Ecuadorian species. We may, thus, assume that the specimen of *T. cucullata* Jardine and Selby originated in Ecuador, too.

Lond., 1879, p. 500—Concordia, western Andes, Colombia; Taczanowski and Berlepsch, l.c., 1885, p. 80—San Rafael, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 148, 1886—part, spec. e-i, Antioquia and Ecuador ("Sarayacu," Chiquinda); Salvadori and Festa, Boll. Mus. Zool. Torino 14, No. 357, p. 17, 1899—Ecuador (Pun, "Nanegal," "Intac," Pelagallo); Goodfellow, Ibis, 1901, p. 465—west side of Pichincha and Papallacta, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 99, 1911—Piscopata, Oyacachi, and "Quito"; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1047, 1912—Ecuador ("Quito," "Nanegal," "Intaj," Pichincha, Papallacta, San Rafael, "Sarayacu"); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 84, 1922—below Lloa, Ecuador.

*Buthraupis cucullata cucullata* Chapman, Bull. Amer. Mus. N. H., 36, p. 603, 1917—Colombia (Cerro Munchique and Cocal, western Andes; Almaguer, Laguneta, and Santa Isabel, central Andes); idem, l.c., 55, p. 668, 1926—Ecuador (Pichincha, Loja, Rio Upano, upper Sumaco, above Baeza, below Papallacta, and below Oyacachi).

*Buthraupis cucullata intermedia* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 343 (in text)—Ecuador (type, from San Rafael, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 184, 1927).

*Range.*—Temperate zone of Ecuador and of the western and central Andes of Colombia.<sup>1</sup>

**\**Buthraupis montana gigas* (Bonaparte).<sup>2</sup> GIANT MOUNTAIN TANAGER.**

*Dubusia gigas* Bonaparte, Rev. Mag. Zool., (2), 3, p. 171, 1851—Santa-Fé-de-Bogotá, Colombia (type in Paris Museum).

*Buthraupis cucullata* (not *Tanagra cucullata* Jardine and Selby) Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 239, 1856—part, New Grenada, Bogotá; idem, Cat. Coll. Amer. Bds., p. 73, 1862—part, spec. a, b, Bogotá; idem, Cat. Bds. Brit. Mus., 11, p. 148, 1886—part, spec. a-d, Bogotá.

*Buthraupis cucullata gigas* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1047, 1912—part, Bogotá, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 603, 1917—El Piñon, eastern Andes, Colombia.

*Tanagra montana* (not *Aglaia montana* Lafresnaye and d'Orbigny) Lesson, Écho du Monde Sav., 11th année, 2nd sém., No. 3, p. 56, July 11, 1844—(crit.).

*Buthraupis montana* Cabanis, Mus. Hein., 1, p. 29, 1851—Colombia.

*Range.*—Temperate zone of the eastern Andes of Colombia.

3: Colombia (Páramo de Tamá, 3).

<sup>1</sup> *Material examined.*—Colombia: Cocal, western Andes, 2; Santa Isabel, central Andes, 2.—Ecuador: west side of Pichincha, 9; Papallacta, 5.

<sup>2</sup> *Buthraupis montana gigas* (Bonaparte): Similar to *B. m. cucullata*, but above much duller and less purplish, dull Tyrian blue rather than grayish violet-blue. Although this form is generally easily recognizable, certain specimens, in the color of the upper parts, are intermediate to *cucullata*.

*Additional material examined.*—Colombia: "Bogotá," 10.

\***Buthraupis eximia eximia** (Boissonneau). BLUE-RUMPED MOUNTAIN TANAGER.

*Tanagra eximia* Boissonneau, Rev. Zool., 3, p. 66, 1840—Santa-Fé-de-Bogotá, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 404, 1930);<sup>1</sup> Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—Bogotá.

*Tanagra (Sallator) eximia* Lesson, Écho du Monde Sav., 11th année, 2nd sém., No. 3, p. 57, July 11, 1844—Colombia (crit.).

*Buthraupis eximia* Cabanis, Mus. Hein., 1, p. 29, 1851—Colombia; Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—Bogotá; idem, l.c., 24, p. 240, 1856—Bogotá (descr.); idem, Cat. Coll. Amer. Bds., p. 73, 1862—Bogotá; idem, Cat. Bds. Brit. Mus., 11, p. 149, 1886—Bogotá; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—Bogotá.

*Buthraupis eximia eximia* Chapman, Bull. Amer. Mus. N. H., 36, p. 604, 1917—eastern Andes of Colombia (El Piñon, Palo Hueco).

*Range*.—Temperate zone of the eastern Andes of Colombia.<sup>2</sup>  
1: Colombia ("Bogotá," 1).

\***Buthraupis eximia chloronota** Sclater. GREEN-BACKED MOUNTAIN TANAGER.

*Buthraupis chloronota* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 97, pl. 64, pub. April 5, 1855—"in rep. Equatoriana" (type in coll. of E. and J. Verreaux, present location unknown); idem, l.c., 24, p. 240, 1856—vicinity of Quito, Ecuador (descr.); idem, l.c., 26, p. 551, 1858—Matos, Ecuador; idem, Cat. Coll. Amer. Bds., p. 73, 1862—Matos; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 80—San Rafael, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 148, 1886—Ecuador (Matos, Intag, Sical, "Sarayacu"); Goodfellow, Ibis, 1901, p. 465—west side of Pichincha, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 100, 1911—"Macas," Pichincha, and Pongo, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1047, 1912—Ecuador (Quito, Matos, Intag, Sical, Pichincha, Pongo, "Macas," San Rafael, "Sarayacu"); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—below Lloa, Ecuador.

*Buthraupis eximia chloronota* Chapman, Bull. Amer. Mus. N. H., 36, p. 603, 1917—western and central Andes of Colombia (Paramillo, Santa Isabel, Almaguer); idem, l.c., 55, p. 669, 1926—Yanacocha, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Cerro Mojanda, Ecuador; idem, l.c., (2), 4, p. 241, 1932—Escudilla, eastern Ecuador.

*Range*.—Temperate zone of Ecuador (both slopes) and of the western and central Andes of Colombia.<sup>3</sup>

1: Ecuador (Pichincha, 1).

<sup>1</sup> Another alleged type acquired from Boissonneau in 1841 is in the Vienna Museum.

<sup>2</sup> Twelve specimens from "Bogotá" examined.

<sup>3</sup> Birds from the two slopes of Ecuador and two skins from Paramillo, north end of the western Andes of Colombia, have the back and rump entirely green,



Genus **BANGSIA** Penard<sup>1</sup>

*Bangsia* Penard, Auk, 36, p. 539, 1919—type, by orig. desig., *Buthraupis caeruleigularis* Ridgway.

**Bangsia arcaei caeruleigularis** (Ridgway).<sup>2</sup> **CHERRIE'S TANAGER.**

*Buthraupis caeruleigularis* (Cherrie MS.) Ridgway, Proc. U. S. Nat. Mus., 16, p. 609, 1893—Buena Vista [San Carlos River], Costa Rica (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 34, 1902—Buena Vista (monog.); Carriker, Ann. Carnegie Mus., 6, p. 865, 1910—Carrillo, Cariblanco de Sarapiquí, and La Hondura, Costa Rica (crit., habits).

*Buthraupis caeruleigularis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—Buena Vista, Costa Rica.

*Range.*—Tropical zone of Caribbean Costa Rica (around the northeastern slopes of the volcanoes of Turrialba, Irazú, Barba, and Póas).

**Bangsia arcaei arcaei** (Sclater and Salvin). **ARCÉ'S TANAGER.**

*Buthraupis arcaei* Slater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 439, pl. 31—Cordillera del Chucú, Veraguas (types in Salvin-Godman Collection, now in British Museum); Salvin, l.c., 1870, p. 187—Cordillera del Chucú; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 276, 1883—Cordillera del Chucú and Calobre, Veraguas; Slater, Cat. Bds. Brit. Mus., 11, p. 149, 1886—same localities; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 33, 1902—same localities (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—same localities.

*Range.*—Tropical zone of western Panama (Cordillera del Chucú and Calobre, Veraguas).<sup>3</sup>

while those from the central Andes show slight traces of blue on some of the uropygial feathers, thus pointing to *B. e. eximia*. Moore (Amer. Mus. Nov. 715, pp. 2, 3, April 20, 1934) separates the inhabitants of the western and central Andes of Colombia as *B. e. zimmeri* (type from Paramillo in the American Museum of Natural History, New York), and describes still another race, *B. e. cyanocalypra* from south-central Ecuador (type from San Luis, near Mount Sangay, in coll. of R. T. Moore).

Nineteen specimens, including seven from Colombia, examined.

<sup>1</sup>*Bangsia* Penard: Similar to *Buthraupis*, but bill longer and more slender; tail comparatively much shorter (being about one-half or a little more than one-half as long as wing) and less rounded; wing relatively longer and more pointed.

<sup>2</sup>*Bangsia arcaei caeruleigularis* (Ridgway): Similar to *B. a. arcaei*, but the sides and flanks are extensively and uniformly dusky-bluish instead of merely clouded with dusky.

*Material examined.*—Costa Rica: Cariblanco de Sarapiquí, 2.

<sup>3</sup>*Material examined.*—Panama: Calobre, Veraguas, 1.

**Bangsia rothschildi** (Berlepsch).<sup>1</sup> ROTHSCHILD'S TANAGER.

*Buthraupis rothschildi* Berlepsch, Bull. Brit. Orn. Cl., 7, p. iii, Oct., 1897—Cachaví, Prov. Esmeraldas, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York); Hartert, Nov. Zool., 5, p. 482, pl. 2, fig. 2, 1898—Cachaví, Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1110 (in text)—Cachaví and Rio Pichiayacú, Ecuador (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—same localities; Chapman, Bull. Amer. Mus. N. H., 36, p. 604, 1917—Rio Andagueda (sources of the Rio Atrato), Colombia.

*Bangsia rothschildi* Chapman, Bull. Amer. Mus. N. H., 55, p. 669, 1926—Ecuador.

*Range*.—Tropical zone of western Colombia (Rio Andagueda, sources of the Rio Atrato) and northwestern Ecuador (Cachaví and Rio Pichiayacú, Prov. Esmeraldas).

**Bangsia melanochlamys** (Hellmayr).<sup>2</sup> BLACK-MANTLED TANAGER.

*Buthraupis melanochlamys* Hellmayr, Bull. Brit. Orn. Cl., 25, p. 112, June, 1910—La Selva, Rio Jamaraya, western Andes, Colombia (type in Munich Museum); idem, Proc. Zool. Soc. Lond., 1911, p. 1109—La Selva; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—La Selva; Chapman, Bull. Amer. Mus. N. H., 36, p. 604, 1917—La Frijolera, above Puerto Valdivia, lower Cauca, Colombia.

*Range*.—Subtropical zone of western Colombia (La Selva, Rio Jamaraya, sources of the Rio San Juan, western Andes; La Frijolera, above Puerto Valdivia, west slope of central Andes).

<sup>1</sup>*Bangsia rothschildi* (Berlepsch): Nearly allied to *B. a. arcaei*, but the under parts, with the exception of a light cadmium patch on the foreneck and the lemon yellow anal region and under tail coverts, are black, more or less glossed with purplish blue. Besides, the upper parts are deeper black, though similarly glossed on the back, wing and tail coverts. Wing, 94, (female) 88; tail, 53, (female) 51; bill, 15.

This tanager is probably conspecific with *B. arcaei*. Both are, however, so little known that further speculation on their relationship seems premature.

*Material examined*.—Ecuador, Prov. Esmeraldas: Cachaví, 1; Rio Pichiayacú, 3.

<sup>2</sup>*Bangsia melanochlamys* (Hellmayr): Related to *B. a. arcaei* and *B. rothschildi*, but lesser and median upper wing coverts pale blue, forming a large humeral patch; head, mantle, and scapulars deep (velvety) black with a faint silky gloss; lower rump and upper tail coverts pale blue, rather duller than the humeral area; under parts much as in *B. a. arcaei* except that the sides and flanks are extensively black (more blackish slate posteriorly). Wing (female), 90; tail, 53; bill, 15.

In opposition to *B. arcaei* and *B. rothschildi*, both of which are peculiar to the tropical lowlands, this tanager has been taken only in the lower Subtropical zone. The type was obtained by Mervyn G. Palmer at La Selva (4,600 feet), near the headwaters of the Rio San Juan, on the western slope of the western Andes. Three additional specimens were subsequently secured by Miller and Boyle at La Frijolera (alt. 5,000 feet), on the western slope of the central Andes above Puerto Valdivia on the lower Cauca. The pale blue patch on the wing and the similarly colored uropygial area render this bird easily recognizable among its affines, from which it appears to be specifically distinct.

*Material examined*.—Colombia: La Selva, Rio Jamaraya, 1 (the type).

**Bangsia edwardsi** (Elliot).<sup>1</sup> MILNE-EDWARDS'S TANAGER.

*Buthraupis edwardsi* Elliot, Nouv. Arch. Mus. Hist. Nat., 1, Bull., p. 77, pl. 4, fig. 2, 1865—"Nouvelle Grenade" (descr. of female; type in Paris Museum examined); Salvin, Ibis, 1874, p. 307—Esmeraldas and Chillo, Quito Valley, on the western slope of Antisana, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 150, 1886—"Pasto," Ecuador [=Colombia]; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1111 (in text)—Ecuador and Colombia (range); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—Ecuador ("Quito") and Colombia ("Pasto"); Chapman, Bull. Amer. Mus. N. H., 36, p. 604, 1917—Buenavista and Ricaurte, Nariño, Colombia; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 442, 1932—Valley of Tumbaco and Huila, Ecuador (crit.).

*Bangsia edwardsi* Chapman, Bull. Amer. Mus. N. H., 55, p. 669, 1926—Huila and Rio Blanco, near Mindo, Ecuador.

*Range*.—Tropical and Lower Subtropical zone of southwestern Colombia (Buenavista and Ricaurte, Nariño) and northwestern Ecuador (Esmeraldas; Chillo; Tumbaco; Huila; Rio Blanco, below Mindo).

**Bangsia aureocincta** (Hellmayr).<sup>2</sup> GOLDEN-NECKED TANAGER.

*Buthraupis aureocincta* Hellmayr, Bull. Brit. Orn. Cl., 25, p. 111, June, 1910—Tatamá Mountain, near the sources of the Rio San Juan, western Andes, Colombia (type in Munich Museum); idem, Proc. Zool. Soc. Lond., 1911, p. 1110—Tatamá Mountain; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1048, 1912—Tatamá Mountain; Chapman, Bull. Amer. Mus. N. H., 36, p. 604, 1917—Nóvita Trail, western Andes, Colombia.

*Range*.—Subtropical zone of the western Andes of Colombia (Mount Tatamá, alt. 6,700 feet; Nóvita Trail, alt. 7,200 feet).

<sup>1</sup>*Bangsia edwardsi* (Elliot) is well characterized by its green general coloration, bright yellow pectoral patch, and pale blue sides of the head. Adult males have the pileum, lores, and throat black.

The locality "Pasto" is obviously inaccurate, this species being a bird of the tropical and subtropical forests. Specimens from "Quito" collections certainly did not come from the immediate vicinity of that city, but are more likely to have been obtained on the wooded slopes of the Pacific side at lower altitudes.

*Material examined*.—Ecuador: Rio Blanco, below Mindo, 4; Huila, Mindo, 3; unspecified, 1.

<sup>2</sup>*Bangsia aureocincta* (Hellmayr): Adult male similar to *B. edwardsi*, but orbicular region and auriculars glossy black like the pileum, bounded posteriorly by a broad bright yellow band which descends the sides of the neck and joins a similarly colored malar stripe; large chin-spot pale yellow, etc. Bill black, lower mandible yellow (as in *B. edwardsi*). Wing (male), 93; tail, 60; bill, 14. No female seen.

In spite of the striking difference in the coloration of the sides of the head, this species, in other respects, is so much like *B. edwardsi* that it may yet prove to be its northern representative.

*Material examined*.—Colombia: Tatamá Mountain, 1 (the type).

## Genus DUBUSIA Bonaparte

*Dubusia* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, p. 424, 1850—type, by virtual orig. desig.,<sup>1</sup> *Dubusia selysia* Bonaparte=*Tanagra selysia* Bonaparte.

\**Dubusia taeniata taeniata* (Boissonneau). BUFF-BREASTED MOUNTAIN TANAGER.

*Tanagra (Tachyphonus) taeniata* Boissonneau, Rev. Zool., 3, p. 57, 1840—Santa-Fé-de-Bogotá, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.;<sup>2</sup> cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 405, 1930).

*Tanagra selysia* Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—Quito, Ecuador (type in Leiden Museum).

*Dubusia selysia* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, p. 424, 1850 (crit.); idem, l.c., 32, p. 81, 1851 (crit.); Sclater, Proc. Zool. Soc. Lond., 24, p. 237, 1856—vicinity of Quito, Ecuador (descr.); idem, Cat. Coll. Amer. Bds., p. 74, 1862—Ecuador.

*Dubusia taeniata* Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—Bogotá; idem, l.c., 24, p. 237, 1856—Bogotá (descr.); idem, Cat. Coll. Amer. Bds., p. 74, 1862—Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 500—Santa Elena, Colombia; Berlepsch and Taczanowski, l.c., 1884, p. 289—Cechce, Ecuador (crit.); idem, l.c., 1885, p. 81—San Rafael, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 152, 1886—Colombia (Bogotá, Santa Elena) and Ecuador (Sical, Quito); Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 307, 1899—vicinity of Bogotá; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Pun, Ecuador; Goodfellow, Ibis, 1901, p. 466—Pichincha and Papallacta, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 100, 1911—Lloa, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1049, 1912—Colombia (Bogotá, Antioquia) and Ecuador (Quito, Sical, Lloa, Cechce, Pichincha, Papallacta, San Rafael, Pun); Chapman, Bull. Amer. Mus. N. H., 36, p. 606, 1917—Colombia (Andes west of Popayán, western Andes; El Piñon, Fusugasugá, Subia); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—Chinguil, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 672, 1926—Ecuador (Hacienda Garzón, Yanacocha, Taraguacocha, Macas region, upper Sumaco, above Baeza, Papallacta, Oyacachi); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Cerro Mojanda, Ecuador; idem, l.c., (2), 4, p. 241, 1932—Yunguilla, eastern Ecuador; idem, l.c., p. 627, 1932—El Portete de Tarquí, Cuenca, Ecuador.

*Range*.—Temperate zone of western Venezuela (Sierra of Mérida), Colombia (except Santa Marta region), and Ecuador.<sup>3</sup>

3: Colombia (Bogotá, 2); Venezuela (Río Mucujón, 1).

<sup>1</sup> Although a number of other species are mentioned as pertaining to the genus, only the above is listed in combination with the new generic title.

<sup>2</sup> Another alleged type received from Boissonneau in 1841 is in the Vienna Museum.

<sup>3</sup> Ecuadorian specimens I am unable to separate satisfactorily from a series of Bogotá skins. A single adult male from Culata (alt. 10,000 feet), Mérida,



**Dubusia taeniata stictocephala** Berlepsch and Stolzmann.<sup>1</sup>  
MARAYNIOC MOUNTAIN TANAGER.

*Dubusia stictocephala* Berlepsch and Stolzmann, Ibis, (6), 6, p. 386, 1894—Maraynioc, Dept. Junfn, Peru (cotypes in Berlepsch Collection, now in Frankfort Museum, and in Warsaw Museum; cf. Sztolcman and Domaniwski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 184, 1927); idem, Proc. Zool. Soc. Lond., 1896, p. 343, pl. 13—Maraynioc; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1049, 1912—Peru (Maraynioc, Pariayacu, Huarmipaycha); Chapman, Bull. U. S. Nat. Mus., 117, p. 119, 1921—Occobamba Valley, Urubamba, Peru.

*Range*.—Temperate zone of Peru, from Junfn (Maraynioc, Pariayacu, Huarmipaycha) to Cuzco (Occobamba Valley, Urubamba).

Genus **TEPHROPHILUS** Moore<sup>2</sup>

*Tephrophilus* Moore, Auk, 51, p. 1, 1934—type, by orig. desig., *Tephrophilus wetmorei* Moore.

**Tephrophilus wetmorei** Moore.<sup>3</sup> WETMORE'S MOUNTAIN TANAGER.

*Tephrophilus wetmorei* Moore, Auk, 51, p. 1, pl. 1, 1934—southeastern end of Culebrillas Valley, northwest of Mount Sangay, Ecuador (type in coll. of Robert T. Moore, Pasadena).

collected by S. Briceño on March 16, 1910 (Frankfort Museum), does not differ either.

*Additional material examined*.—Colombia: Bogotá, 11.—Venezuela: Culata, Mérida, 1.—Ecuador: Pichincha, 4; Lloa, 2; "Quito," 3; Pun, 1; San Rafael, 1; Papallacta, 1.

<sup>1</sup> *Dubusia taeniata stictocephala* Berlepsch and Stolzmann: Similar to *D. t. taeniata*, but feathers of all the pileum and hind neck (not only those on forehead and superciliary region) largely tipped with pale blue; buffy pectoral band narrower as well as interrupted medially; under tail coverts yellowish instead of warm buff; blue of the back not so dark, etc. Wing (males), 92–95; tail, 87; bill, 17.

*Material examined*.—Peru: Maraynioc, 2.

<sup>2</sup> Genus *Tephrophilus* Moore: Bill short, stout, slightly broader than deep; culmen straight for basal two-thirds, distinctly convex terminally, the tip of the maxilla slightly uncinuate, with a distinct tomial notch behind point, and sulcate, the groove being parallel with the culmen; maxillary tomium swollen and slightly convex at base, straight or slightly concave towards tip; mandible shallower than maxilla, sharply compressed terminally; nostrils exposed, oval; rictal bristles distinct; wing about two and a half to three times the length of the tarsus, rounded; first primary (from without) shortest, fourth primary the longest, third and fifth primaries about equal to third; tail nearly as long as wing, strongly rounded; tarsus unusually strong and long, about four times the length of maxilla from nostril to tip; feet, toes, and claws unusually strong and powerful, much heavier than in *Bulhroupis*. (Condensed from R. T. Moore.)

From the long description it does not clearly result to which other group this genus is most closely related. The wing formula seems to be the same as in *Dubusia*, while other characters point to affinities with *Compsocoma*.

<sup>3</sup> *Tephrophilus wetmorei* Moore: Crown and back yellowish citrine, each feather finely bordered with blackish, and passing into wax yellow on the forehead; rump bright yellow; chin, sides of throat, and sides of head deep black, surmounted by

*Range*.—Humid Temperate zone of Ecuador (Culebrillas Valley, near Mount Sangay).

### Genus COMPSOCOMA Cabanis

*Compsocoma* Cabanis, Mus. Hein., 1, p. 140, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 72, 1855), *Tachyphonus victorini* Lafresnaye.

### *Compsocoma flavinucha venezuelana* Hellmayr.<sup>1</sup> VENEZUELAN MOUNTAIN TANAGER.

*Compsocoma somptuosa venezuelana* Hellmayr, Verh. Orn. Ges. Bay., 11, p. 317, Dec., 1913—La Cumbre de Valencia, Carabobo, Venezuela (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 184, 1924—Galipán, Cerro del Avila, Venezuela; Chapman, Amer. Mus. Nov., 160, pp. 13, 14, 1925—Galipán, near Caracas.

*Compsocoma somptuosa* (not *Tachyphonus somptuosus* Lesson) Sclater, Proc. Zool. Soc. Lond., 24, p. 238, 1856—part, Venezuela; Sclater and Salvin, l.c., 1868, p. 167—Caracas; Sclater, Cat. Bds. Brit. Mus., 11, p. 151, 1886—part, subsp. *typica*, spec. a, b, Caracas; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1049, 1912—part, Venezuela ("Puerto Cabello," Caracas, "Caripé").

*Compsocoma somptuosa somptuosa* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 60, 1912—San Esteban and Cumbre de Valencia, Carabobo.

*Range*.—Subtropical zone of northern Venezuela, in Dept. Federal (Caracas; Galipán, Cerro del Avila) and State of Carabobo, (San Esteban; La Cumbre de Valencia).

a broad bright yellow band joining the yellow of the forehead; remainder of under parts bright (empire) yellow, the sides and flanks marked with dusky or blackish V-shaped spots; tibial feathers, upper and under tail coverts dark Warbler green; lesser upper wing coverts light blue violet, forming a conspicuous patch; remaining wing coverts slate black, externally edged with light violet blue; remiges and rectrices slate black; under wing coverts and axillaries dark gray. Bill black, lower mandible pale mazarine blue with extreme tip blackish; legs and feet black. Wing, 101-105; tail, 88-93; tarsus, 34-35; bill (exposed culmen), 14-15 (compiled from Moore's description and colored figure).

In certain details of coloration this bird obviously offers much analogy with *Compsocoma notabilis* (Sclater).

<sup>1</sup>*Compsocoma flavinucha venezuelana* Hellmayr: Exceedingly similar to, and agreeing with, *C. f. somptuosa* in the pale cerulean blue margins to wing and tail feathers, but uropygial area decidedly brighter, olive green rather than brownish olive, less extensive and less "solid," being more profusely barred with dusky; upper tail coverts largely black with narrow olive green edges; bill markedly slenderer, though not constantly shorter. Wing, 87-92; tail, 67-73; bill, 16-17.

The close resemblance of this form to the widely separated Peruvian race offers an interesting parallel to other species of similar distribution (e.g., *Tanagra xanthogaster ruficeps* and *T. x. exsul*, etc.). Though single individuals sometimes run pretty close, the racial characters are quite noticeable on comparison of series.

Birds from the Caracas region agree with those from the Cumbre de Valencia. A single example, marked "Caripé, Jan., 1894" by A. Mocquerys, in the Tring Collection is most probably incorrectly labeled.

*Material examined*.—Venezuela: Galipán, Cerro del Avila, 8; Caracas, 2; San Esteban, 2; Cumbre de Valencia, Carabobo, 46.

**\*Compsocoma flavinucha victorini** (Lafresnaye). GREEN-BACKED MOUNTAIN TANAGER.

*Tach[yphonus] victorini* (Massena MS.) Lafresnaye, Rev. Zool., 5, p. 336, 1842—Santa-Fé-de-Bogotá, "Bolivia"=Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 404, 1930).

[*Tachyphonus*] *flavi-vertex* Lafresnaye, Rev. Zool., 5, p. 336 (in text), 1842 (substitute for *T. victorini* Lafresnaye).

*Tachyphonus elegans* Lesson, Écho du Monde Sav., 11th année, 2nd sém., No. 3, p. 57, July 11, 1844—Colombia (type in coll. of Dr. Abeillé, Bordeaux).<sup>1</sup>

*Tanagra victorini* Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—Bogotá (diag.).

*Compsocoma victorini* Cabanis, Mus. Hein., 1, p. 140, 1851—Santa-Fé-de-Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, pp. 84, 157, 1855—Bogotá; l.c., 24, p. 238, 1856—Bogotá (descr.); idem, Cat. Coll. Amer. Bds., p. 73, 1862—Bogotá; Berlepsch, Journ. Orn., 32, p. 291, 1884—Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 150, 1886—part, spec. a-e, Bogotá; Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—Bogotá; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1049, 1912—part, Colombia (Bogotá, Bucaramanga); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—"Mindó," errore.

*Compsocoma somptuosa victorini* Chapman, Bull. Amer. Mus. N. H., 36, p. 605, 1917—near San Agustin, La Palma, La Candela, El Roble, and Subia, Colombia (crit.); idem, Amer. Mus. Nov., 160, pp. 13, 14, 1925 (range).

*Range*.—Subtropical zone of eastern Colombia (western slope of eastern Andes and eastern slope of central Andes, at head of Magdalena Valley).<sup>2</sup>

3: Colombia (La Candela, Huila, 1; San Agustin, Huila, 1; Bogotá, 1).

**Compsocoma flavinucha baezae** Chapman.<sup>3</sup> BAEZA MOUNTAIN TANAGER.

<sup>1</sup> The description of the upper parts ("le vert pré du manteau et du dos, passant au vert clair sur le croupion et sur les tectrices supérieures"), taken in conjunction with the habitat, leaves no possible doubt that *T. elegans* is the same as *T. victorini*.

<sup>2</sup> Specimens from the head of the Magdalena Valley, by somewhat darker back and slightly deeper blue wing edgings, betray a certain tendency in the direction of *C. f. antioquiae*.

*Additional material examined*.—Colombia: Bucaramanga, 1; Bogotá, 11; La Candela, 2; near San Agustin, 1.

<sup>3</sup> *Compsocoma flavinucha baezae* Chapman: Nearest to *C. f. victorini*, but back decidedly darker and more olivaceous, hellebore green rather than grass green, the feathers frequently fringed with blackish, the nuchal region more suffused with black; similar also to *C. f. antioquiae*, but back greener and margins to wings and tail lighter, King's blue rather than cadet blue.

*Material examined*.—Eastern Ecuador: Machay, 4; Baeza, 4.

*Compsocoma somptuosa baezae* Chapman, Amer. Mus. Nov., 160, p. 13, 1925—Baeza, eastern Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 671, 1926—Baeza (crit.).

*Compsocoma victorini* (not *Tachyphonus victorini* Lafresnaye) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 80—Machay, Ecuador (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 150, 1886—part, spec. f, eastern Ecuador; Goodfellow, Ibis, 1901, p. 465—"western Andes [of Ecuador] at altitudes of from 9,000 to 12,000 feet," errore; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1049, 1912—part, eastern Ecuador (Machay).

*Range*.—Subtropical zone of eastern Ecuador (Baeza, Machay).

### **Compsocoma flavinucha antioquiae** Berlepsch.<sup>1</sup> ANTIOQUIA MOUNTAIN Tanager.

*Compsocoma sumptuosa antioquiae* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1049, 1135, 1912—Antioquia [=Santa Elena], Colombia (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Compsocoma somptuosa antioquiae* Chapman, Bull. Amer. Mus. N. H., 36, p. 605, 1917—Paramillo Trail, Santa Elena, Barro Blanco, El Eden, and Rio Toché, Colombia (crit.); idem, Amer. Mus. Nov., 160, pp. 13, 14, 1925 (range; crit.).

*Compsocoma sumptuosa* (not *Tachyphonus somptuosus* Lesson) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 500—Retiro, Medellín, and Santa Elena, Antioquia, Colombia (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 151, 1886—part, "intermediates," spec. a-d, Santa Elena and Retiro, Antioquia; Pigué, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—La Camelia, near Angelópolis, western Andes, Colombia.

*Range*.—Subtropical zone of the northern end of the western and central Andes of Colombia, south to about the latitude of Cartago and Ibagüe.

### **\*Compsocoma flavinucha cyanoptera** Cabanis.<sup>2</sup> BLUE-WINGED MOUNTAIN Tanager.

<sup>1</sup>*Compsocoma flavinucha antioquiae* Berlepsch: Very similar to *C. f. cyanoptera*, but interscapular region tinged with greenish; rump green; the external margins to wing and tail feathers decidedly lighter blue (King's blue). Wing, 96-100; tail, 76-80; bill, 17.

*Material examined*.—Colombia, Antioquia: Santa Elena, 1; Retiro, 3; unspecified, 2.

<sup>2</sup>*Compsocoma flavinucha cyanoptera* Cabanis: Differs from *C. f. somptuosa* in having the margins to rectrices and remiges much darker, cadet blue instead of pale cerulean blue; the yellow crown patch more extensive; the rump nearly black or very dark olive green.

Birds from the western Andes of Colombia (Rio Lima, Cauca) have the wing edgings not quite so dark as Ecuadorian specimens, but in other respects agree with the latter. Those from the west slope of the central Andes (Miraflores, Salento) are, according to Chapman, even more intermediate to *antioquiae*.

*Additional material examined*.—Colombia: Rio Lima, western Andes, 3.—Ecuador: Salvador, Rio Saloya, Pichincha, 1; Guala, 3; Chaguarpata, 1; Cayandeled, 4; Niebli, 6; unspecified, 3.



*Compsocoma cyanoptera* Cabanis, Journ. Orn., 14, p. 235, 1866—Ecuador (type in Berlin Museum); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Tambo de Yerba Buena and Niebli, Ecuador (crit.).

*Compsocoma sumptuosa* (not *Tachyphonus somptuosus* Lesson) Sclater, Proc. Zool. Soc. Lond., 23, p. 84, 1855—part, Ecuador; idem, l.c., 24, p. 238, 1856—part, "vicinity of Quito," Ecuador; idem, l.c., 27, p. 139, 1859—Pallatanga, Ecuador; idem, l.c., 28, p. 86, 1860—above Puellaro, Ecuador; Goodfellow, Ibis, 1901, p. 465—"Papallacta, eastern Andes" [of Ecuador], errore.

*Compsocoma sumptuosa cyanoptera* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 546—Cayandede, Ecuador; idem, l.c., 1884, p. 289—Cayandede and Chaguarpata, Ecuador (crit.); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 100, 1911—Pelegallo, Jungilla, and Gualea, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1050, 1912—western Ecuador ("Quito," Cayandede, Chaguarpata, Gualea, Nanegal, Tambo de Yerba Buena, Niebli, "Baiza") and Colombia (Pasto); Chapman, Bull. Amer. Mus. N. H., 36, p. 605, 1917—San Antonio, Cerro Munchique, La Florida, Gallera, Cocal, La Sierra, Miraflores, and Salento, western and central Andes, Colombia (crit.); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—road to Nanegal, Mindo, and Canchacoto, Ecuador (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, 32, p. 75, 1928—Alaguincho, Ecuador.

*Compsocoma somptuosa cyanoptera* Chapman, Amer. Mus. Nov., 160, pp. 13, 14, 1925 (crit., range); idem, Bull. Amer. Mus. N. H., 55, p. 670, 1926—Pagma Forest, Gualea, Pallatanga, and Quito, Ecuador (crit.).

*Compsocoma somptuosa antioquiæ* (not of Berlepsch) Hellmayr, Verh. Orn. Ges. Bay., 11, p. 318, 1913—part, Rio Lima, Cauca.

*Compsocoma sumptuosa* b. subsp. *cyanoptera* Sclater, Cat. Bds. Brit. Mus., 11, p. 151, 1886—Ecuador ("Quito," "Baiza") and Colombia (Pasto).

*Range.*—Subtropical zone of western Colombia (western Andes and west slope of central Andes, excepting the northern end) and western Ecuador, north of the Rio Chimbo.

5: Colombia (Castilla Mountains, 1; Zapata, 1; Miraflores, west slope of central Andes, 2; Los Jambos, 1).

### *Compsocoma flavinucha alamoris* Chapman.<sup>1</sup> ALAMOR MOUNTAIN TANAGER.

*Compsocoma somptuosa alamoris* Chapman, Amer. Mus. Nov., 160, p. 12, 1925—Alamor, southwestern Ecuador (type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 55, p. 670,

<sup>1</sup> *Compsocoma flavinucha alamoris* Chapman: "Similar to *C. f. antioquiæ*, but smaller (wing, 89 against 97 mm.); resembling *C. f. cyanoptera*, but wings and tail margined with lighter blue (King's blue rather than cadet blue), the foreback more or less mixed with green, and rump greener." (Chapman, l.c.) We are not acquainted with this race discriminated by Chapman and Berlioz. It appears to represent the allied forms in southwestern Ecuador.

1926—southwestern Ecuador (El Chiral, Zaruma, San Bartolo, Salvias, Alamor, Celica).

*Compsocoma sumptuosa alamoris* Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 626, 1932—El Portete de Tarquí, Cuenca (crit.).

*Range*.—Subtropical zone of southwestern Ecuador, from the vicinity of Cuenca south to Province of Loja.

\**Compsocoma flavinucha somptuosa* (Lesson). BLUE-SHOULDERED MOUNTAIN Tanager.

*Tachyphonus somptuosus* Lesson, Traité d'Orn., p. 463, 1831—no locality indicated (the type, examined in the Paris Museum, was collected by Ajassou in Peru); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 379, pl. 23, 1855—Peru (crit.).

*Tachyphonus flavinucha* (not of Lafresnaye and d'Orbigny) Tschudi, Arch. Naturg., 10, (1), p. 288, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 208, 1846—wooded valleys of eastern Peru between 9° and 10° lat. south.

*Tanager somptuosus* Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—"Columbia," errore (ex Lesson).

*Compsocoma elegans* (not *Tachyphonus elegans* Lesson) Cabanis, Mus. Hein., 1, p. 140, 1851—Peru (crit.); Selater, Cat. Coll. Amer. Bds., p. 74, 1862—Peru.

*Compsocoma sumptuosa* Selater, Proc. Zool. Soc. Lond., 23, p. 84, 1855—part, Peru; idem, l.c., 24, p. 238, 1856—part, Peru; idem, Cat. Coll. Amer. Bds., p. 74, 1862—"Peruvian Amazon"; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 513—Paltaypampa and Auquimarca, Peru; idem, l.c., 1882, p. 13—Chirimoto, Peru; idem, Orn. Pér., 2, p. 484, 1884—Peru (Auquimarca, Paltaypampa, Chirimoto); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 343—Garita del Sol, Vitoc, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Cueva Seca, near Tayabamba, Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1049, 1912—part, Peru (Chirimoto, Chachapoyas, Ray-urmana, Auquimarca, Paltaypampa, Garita del Sol).

*Compsocoma sumptuosa* a. subsp. *typica* Selater, Cat. Bds. Brit. Mus., 11, p. 151, 1886—part, spec. c-g, eastern Ecuador (San Lucas, "San José") and Peru.

*Compsocoma sumptuosa sumptuosa* Bangs and Noble, Auk, 35, p. 459, 1918—Charapi, northern Peru.

*Compsocoma somptuosa somptuosa* Chapman, Amer. Mus. Nov., 160, pp. 13, 14, 1925—Peru and southeastern Ecuador (crit.); idem, Bull. Amer. Mus. N. H., 55, p. 669, 1926—southeastern Ecuador (Sabanilla, Zamora) and Peru (Chaupe, Chelpe).

*Range*.—Subtropical zone of extreme southeastern Ecuador (Rio Zamora) and eastern Peru, south to Dept. Junín.<sup>1</sup>

<sup>1</sup> I cannot perceive any constant difference between birds from northern and central Peru, though the former possibly have the yellow crown patch more extended. The edges to the remiges are of the same pale cerulean blue hue as in *C. f. flavinucha*, which differs, however, by the reduction of the yellow nuchal

2: Peru (Cueva Seca, Rio Tocache, San Martín, 1; Piquitambo, Rio Tocache, San Martín, 1).

**Compsocoma flavinucha flavinucha** (Lafresnaye and d'Orbigny).

YELLOW-NAPED MOUNTAIN TANAGER.

*Tachyphonus flavinucha* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 29, 1837—Yungas, Bolivia (type in the Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 279, pl. 21, fig. 1, 1839—Chupé, Irupana, and Suri, Yungas of La Paz, Bolivia.

*Tanagra flavinucha* Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—Bolivia.

*Compsocoma flavinucha* Cabanis, Mus. Hein., 1, p. 140, 1851—Bolivia; Sclater, Proc. Zool. Soc. Lond., 24, p. 238, 1856—Bolivia (descr.); idem and Salvin, l.c., 1879, p. 600—Bolivia (Chupé, Irupana, Suri, Simacu, Tilotilo); Sclater, Cat. Bds. Brit. Mus., 11, p. 152, 1886—Simacu and Tilotilo, Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 81, 1889—Yungas; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1050, 1912—Bolivia (Simacu, Tilotilo, Chaco, Songo, Tanampaya, San Cristóbal, Pucyuni); Hellmayr, Nov. Zool., 30, p. 227, 1923—Bolivia (note on type).

*Range*.—Subtropical zone of Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

**Compsocoma notabilis** (Sclater). BLACK-CHINNED MOUNTAIN TANAGER.

*Tanagra notabilis* Sclater,<sup>2</sup> Proc. Zool. Soc. Lond., 23, p. 84, pl. 91, June 26, 1855—"eastern range of the Cordillera to the north of Quito," Ecuador (type in coll. of P. L. Sclater, now in British Museum).

*Tanagra notabilis* Jardine, Edinb. New Phil. Journ., (n.s.), 2, No. 1, p. 119, July, 1855—eastern Cordillera of Ecuador.

*Compsocoma notabilis* Sclater, Proc. Zool. Soc. Lond., 24, p. 239, 1856—vicinity of Quito, Ecuador (descr.); idem, Cat. Coll. Amer. Bds., p. 74, 1862—"Quito"; idem, Cat. Bds. Brit. Mus., 11, p. 152, 1886—Ecuador (Quito, Intag); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Nanegal and Intag, Ecuador; Goodfellow, Ibis, 1901, p. 466—west side of Pichincha, Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911,

spot and its blue rump. Yet the two are clearly geographic representatives, and I see no reason why they should not be merged into a single specific entity.

*Additional material examined*.—Ecuador: San Lucas, Rio Zamora, 1.—Peru: Ray-urmana, 1; Chachapoyas, 4; Cueva Seca, near Tayabamba, 2; Cushi Libertad (alt. 1,820 meters), Dept. Huánuco, 7; Garita del Sol, Vitoc, Dept. Junín, 3.

<sup>1</sup> *Material examined*.—Bolivia: Pucyuni, 1; Cocapata, 1; San Cristóbal, 11; Chulumani, 1; Songo, 1; Quebrada Onda, 2.

<sup>2</sup> Sclater's description based on a specimen lent (and subsequently presented) to him by Sir William Jardine obviously appeared prior to the latter author's own account in the "Edinburgh New Philosophical Journal." If we go by the available dates of publication, the first number of the second volume of this serial was issued some time in July, whereas that part of the "Proceedings of the Zoological Society of London" containing Sclater's paper came out on June 26, 1855. We may thus regard the specimen in the Sclater Collection from "Quito (Jameson)" as the type of *T. notabilis*.

p. 1111—Tatamá Mountain, San Juan slopes of western Andes, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1050, 1912—western Ecuador (Quito, Intag); Chapman, Bull. Amer. Mus. N. H., 36, p. 606, 1917—Nóvita Trail, Colombia; idem, l.c., 55, p. 671, 1926—Ecuador.

*Range*.—Subtropical zone of the western Andes of Colombia (Tatamá Mountain; Nóvita Trail) and Ecuador (west side of Pichincha; Intag).<sup>1</sup>

### Genus *THRAUPIS* Boie<sup>2</sup>

*Thraupis* Boie, Isis, 1826, p. 974—type, by virtual monotypy, *Tanagra archiepiscopus* Desmarest=*Tanagra ornata* Sparrman.

*Hemithraupis* (not of Cabanis, 1851) Ridgway, Auk, 15, p. 226, 1898—type, by orig. desig., *Aglaia cyanocephala* Lafresnaye and d'Orbigny.

*Sporathraupis* Ridgway, Auk, 15, p. 331, 1898—new name for *Hemithraupis* Ridgway, preoccupied.

### \**Thraupis episcopus episcopus* (Linnaeus). BISHOP TANAGER.

*Tanagra Episcopus* Linnaeus,<sup>3</sup> Syst. Nat., 12th ed., 1, p. 316, 1766—based on "L'Evesque" Brisson (Orn., 3, p. 40, pl. 1, fig. 2), "Brésil"<sup>4</sup> (type in coll. of M. Réaumur); Strickland, Ann. Mag. Nat. Hist., 20, p. 332, 1847—Guiana (crit.); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 670, "1848" [=1849]—British Guiana; Bonaparte, Rev. Mag. Zool., (2), 3, p. 170, 1851—part, Guiana; Sclater, Proc. Zool. Soc. Lond., 24, p. 231, 1856—part, British Guiana and Cayenne; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Sclater, Cat. Coll. Amer. Bds., p. 74, 1862—part, spec. a, b, Cayenne; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 571—Pará; Pelzeln, Orn. Bras., 3, p. 208, 1870—part, Marabitanas, Barcellos, and Pará; Layard, Ibis, 1873, p. 379—Pará; Salvin, Ibis, 1885, p. 210—British Guiana (Bartica Grove, Merumé Mountains, Camacusa, Roraima); Sclater, Cat. Bds. Brit. Mus., 11, p. 154, 1886—part, subsp. *typica*, spec. a-k, Guiana (Bartica Grove, Camacusa, Roraima, Cayenne)

<sup>1</sup> Two Colombian birds agree with others from Ecuador.

*Material examined*.—Colombia: Tatamá Mountain, 2.—Ecuador: west side of Pichincha, 1; "Govinda," 2; "Quito," 2.

<sup>2</sup> Subdivision of this genus seems to me impracticable. Cf. also Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 448, 1930.

<sup>3</sup> I am afraid that *Loxia virens* Linnaeus (Syst. Nat., 12th ed., 1, p. 303, 1766; Surinam) will prove to be an earlier name for the Bishop Tanager. The description corresponds fairly to the immature plumage. Lönnberg (Bih. Svensk. Vetensk. Akad. Handl., 22, Afd. 4, p. 33, 1897), who has examined the type preserved in the Upsala Museum, claims it to be "most probably" the same as *T. cyanoptera*, but its poor condition evidently left some doubt as to definite identification. If the locality "Surinam" is to be trusted, it cannot have any relation to the South Brazilian *T. cyanoptera*. At all events, the type, if identifiable at all, should be carefully reexamined by someone equipped with the necessary comparative material before any change in established nomenclature is attempted.

<sup>4</sup> The type is more likely to have come from Cayenne, which has, accordingly, been substituted as type locality by Berlepsch (Nov. Zool., 15, p. 115, 1908); Mrs. Naumburg (Auk, 41, p. 113, 1924), however, designates Pará, Brazil.



and Brazil (Pará); Riker and Chapman, *Auk*, 7, p. 267, 1890—Santarém, Brazil; Goeldi, *Ibis*, 1897, p. 162—Amapá, Brazil; idem, *Ibis*, 1903, pp. 480, 493—Rio Capim, Pará, Brazil; Ménégau, *Bull. Mus. Hist. Nat. Paris*, 10, p. 182, 1904—Mahury and Ilot la Mère, French Guiana; Hellmayr, *Nov. Zool.*, 12, p. 273, 1905—Igarapé-Assú, Pará; Ihering, *Cat. Faun. Braz.*, 1, p. 356, 1907—part, Primeira Cruz, Maranhão (range in part); Haggmann, *Zool. Jahrb. (Syst.)*, 26, p. 26, 1907—Mexiana; Sneath, *Journ. Orn.*, 55, p. 294, 1907—Pará, Mexiana, Marajó, Santo Antonio do Prata, and Rio Mojú, Brazil; idem, *l.c.*, 56, pp. 498, 522, 1908—Rio Tapajóz (Ilha do Coatá, Itaitúba) and Rio Tocantins (Arumatheua); Berlepsch, *Nov. Zool.*, 15, pp. 115, 316, 1908—Cayenne and Approuague, French Guiana; Reiser, *Denks. Math.-Naturw. Kl. Akad. Wiss. Wien*, 76, 100, 1910—Miritiba, Maranhão; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1050, 1912—Cayenne, Surinam, British Guiana, and northern Brazil; Sneath, *Bol. Mus. Goeldi*, 8, p. 447, 1914—Pará, Santo Antonio do Prata, Rio Mojú, Rio Tocantins (Arumatheua), Rio Tapajóz (Itaitúba, Coatá), Rio Jamauchim (Tucunaré), Marajó (São Natal), Mexiana, Rio Jamundá (Faro), and Maranhão, Brazil; idem, *Bol. Mus. Nac. Rio de Janeiro*, 2, No. 6, p. 60, 1926—Maranhão (Anil, São Bento, Tury-assú).

*Gracula glauca* Sparrman, *Mus. Carlson*, fasc. 3, pl. 54, 1788—no locality stated (type now in Stockholm Museum; cf. Gyldenstolpe, *Ark. Zool.*, 19, A, No. 1, p. 14, 1926).

*Tanagra serioptera* Swainson, *Anim. Menag.*, p. 313, Dec. 31, 1837—Demerara (type in coll. of R. Schomburgk); Cabanis, in Schomburgk, *Reisen Brit. Guiana*, 3, p. 670, "1848" [=1849]—British Guiana (ex Swainson).

*Thraupis serioptera* Cabanis, *Mus. Hein.*, 1, p. 28, 1851—Cayenne and Guiana.

*Tanagra coelestis* Spix, *Av. Bras.*, 2, p. 42, 1825—part, descr. of female, Pará (cf. Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 676, 1906).

*Thraupis episcopus episcopus* Hellmayr, *Abhandl. Bayr. Akad. Wiss., Math.-phys. Kl.*, 26, No. 2, pp. 87, 118, 126, 1912—Pará localities, Mexiana, and Marajó (Fazenda Arary, Cachoeira); Beebe, *Zoologica (N.Y.)*, 2, p. 100, 1916—Utinga, Pará; Bangs and Penard, *Bull. Mus. Comp. Zool.*, 62, p. 87, 1918—vicinity of Paramaribo, Surinam; Chubb, *Bds. Brit. Guiana*, 2, p. 514, 1921—British Guiana (various localities); Naumburg, *Auk*, 41, p. 113, 1924 (diag.); Stone, *Proc. Acad. Nat. Sci. Phila.*, 80, p. 174, 1928—Pará; Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, 12, p. 280, 1929—Maranhão (Anil; São Bento; Codó, Cocos; Barra do Corda; São Luiz; Miritiba) (crit.); Chapman, *Bull. Amer. Mus. N. H.*, 63, p. 131, 1931—Arabupu, Roraima.

*Range.*—British, Dutch, and French Guiana; northern Brazil, west to the Rio Negro and the Rio Tapajóz, east to Maranhão.<sup>1</sup>

<sup>1</sup> Birds from the Rio Negro (Barcellos) and Pará agree perfectly with Guianan ones. Specimens from Maranhão generally have larger bills, thereby approaching *T. s. sayaca*, but the divergency is completely bridged by individual variation.

*Additional material examined.*—French Guiana, 9; Dutch Guiana, 2; British Guiana, 8.—Brazil: Marajó, 3; Pará district, 7; Maranhão (Miritiba, Tapera, São Luiz), 8; Barcellos, Rio Negro, 1; Marabitanas, Rio Negro, 1.

18: British Guiana (Potaro, 2; Georgetown, 3; unspecified, 1); Dutch Guiana (Paramaribo, 1); French Guiana (Saint-Laurent-du-Maroni, 1); Brazil (Anil, Maranhão, 3; São Bento, Maranhão, 1; Codó, Cocos, 1; Barra do Corda, Maranhão, 1; Utinga, Pará, 1; Itacoatiará, 1; Manáos, 1; Bõa Vista, Rio Branco, 1).

\**Thraupis episcopus leucoptera* (Sclater).<sup>1</sup> WHITE-EDGED TANAGER.

*Tanagra leucoptera* (G. R. Gray, MS.) Sclater, Cat. Coll. Amer. Bds., p. 74, 1862—New Granada, "Bogotá" (nomen nudum).

[*Tanagra episcopus*] subsp. *leucoptera* Sclater, Cat. Bds. Brit. Mus., 11, pp. 154, 155, 1886—"Bogotá" (type in British Museum).

*Tanagra episcopus* (not of Linnaeus) Bonaparte, Rev. Mag. Zool., (2), 3, p. 170, 1851—part, Nova Granada; Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 231, 1856—part, "Bogotá"; idem, Cat. Coll. Amer. Bds., p. 74, 1862—part, spec. c, d, "Bogotá"; Ihering, Cat. Faun. Braz., 1, p. 356, 1907—part, var. *leucoptera*, "Bogotá."

*Tanagra episcopus leucoptera* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1050, 1912—Colombia ("Bogotá").

*Thraupis episcopus leucoptera* Chapman, Bull. Amer. Mus. N. H., 36, p. 607, 1917—Quetame, Buenavista, and Barrigon, Colombia.

*Range*.—Eastern slope of the eastern Andes of Colombia (Quetame; Buenavista; Barrigon).

1: Colombia (Bogotá, 1).

\**Thraupis episcopus coelestis* (Spix). BLUE-GRAY TANAGER.

*Tanagra coelestis* Spix, Av. Nov. Spec. Bras., 2, p. 42, pl. 55, fig. 2, 1825—part, descr. of male, Fontebõa, Rio Solimões, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, pp. 675, 676, 1906); Bonaparte, Rev. Mag. Zool., (2), 3, p. 169, 1851—Brazil (crit.); Sclater, Proc. Zool. Soc. Lond., 22, p. 115, 1854—part, Quijos, Ecuador; idem, l.c., 24, p. 232, 1856—part, Fontebõa and Quijos; idem, l.c., 26, p. 453, 1858—Gualaquiza, Ecuador; idem, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. b, Gualaquiza; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—part, Nauta, Peru; idem, l.c., 1873, p. 261—part, Nauta; Taczanowski, Orn. Pér., 2, p. 485, 1884—part, Nauta; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Mapoto, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 155, 1886—part, spec. f-m, Peru (Iquitos) and Ecuador (Sarayacu, Monji, Gualaquiza, Rio Napo); Berlepsch, Journ. Orn., 37, p. 98, 1889—Fontebõa, Rio Solimões, Brazil;

<sup>1</sup> *Thraupis episcopus leucoptera* (Sclater) is a connecting link between *T. e. episcopus* and *T. e. coelestis*. The humeral patch, in the adult male, has about the same extent as in the latter, but is more bluish, though less whitish than in *episcopus*; the markings to the greater upper wing coverts are also intermediate, forming narrow external edges of dingy whitish as in *coelestis*, though somewhat less conspicuous, and terminating in large, grayish (instead of white) apical spots. Size fully as large as *T. e. major*. Wing (male), 96–98; tail, 70–71.

*Material examined*.—Colombia: Quetame, 2; "Bogotá," 10.

- Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Rio Napo, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Gualaquiza, Ecuador; Goodfellow, Ibis, 1901, p. 466—Archidona, Ecuador; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá; Sneath, Journ. Orn., 56, p. 10, 1908—Rio Purús (Cachoeira, Bom Lugar); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1051, 1912—part, eastern Ecuador, Brazil, and northeastern Peru (Nauta, Iquitos); Sneath, Bol. Mus. Goeldi, 8, p. 447, 1914—Rio Purús, Brazil.
- Tanagra episcopus* (not of Linnaeus) Pelzeln, Orn. Bras., 3, p. 208, 1870—part, Borba, Rio Madeira.
- Tanagra celestis* Bonaparte, Proc. Zool. Soc. Lond., 5, p. 121, 1837—Brazil (diag.).
- Tanagra episcopus coelestis* Ihering, Cat. Faun. Braz., 1, p. 356, 1907—Rio Juruá, Brazil, and Iquitos, Peru; Hellmayr, Nov. Zool., 14, p. 348, 1907—Borba, Rio Madeira; idem, l.c., 17, p. 274, 1910—Calama, Rio Madeira.
- Tanagra ehrenreichi* Reichenow, Orn. Monatsber., 23, p. 154, 1915—Hyutanahán, Rio Purús, Brazil (type in Berlin Museum examined); idem, Journ. Orn., 64, p. 155, 1916.
- Thraupis episcopus coelestis* Chapman, Bull. Amer. Mus. N. H., 36, p. 607, 1917—La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 672, 1926—eastern Ecuador (Sabanilla, Zamora); Naumburg, l.c., 60, p. 372, 1930—Rio Solimões and Rio Madeira (Porto Velho, Calama).

*Range*.—Western Brazil, east to the Rio Solimões (Manacapurú and Caviana) and the Rio Madeira (Calama, Porto Velho, Borba); northeastern Peru (north of the Marañón); eastern Ecuador; southeastern Colombia (La Morelia, Caquetá).<sup>1</sup>

2: Brazil (Porto Velho, Rio Madeira, 2).

\**Thraupis episcopus caerulea* Zimmer.<sup>2</sup> BLUIISH TANAGER.

<sup>1</sup> Birds from eastern Ecuador and the north bank of the Marañón (Iquitos, Nauta) agree with a series of topotypes from the Solimões, and specimens from the Rio Purús (*ehrenreichi*) are not different either, the characters given by Reichenow being those of the worn plumage. Adults from the Rio Madeira verge towards *episcopus* by having the apical spots to the greater upper wing coverts slightly more grayish.

From Peru I have only seen specimens from the north bank of the Marañón, and suspect that all birds from south of that river will prove to be referable to *T. e. caerulea*.

*Additional material examined*.—Brazil: Manacapurú, 4; Caviana, 1; São Paulo de Olivença, 1; Tonantins, 3; Fontebõa, 2; Calama, Rio Madeira, 2; Porto Velho, 1; Borba, Rio Madeira, 3; Sepatiny, Rio Purús, 1; Hyutanahán, Rio Purús, 3.—Peru: Pebas, 1; Nauta, 2; Iquitos, 4; Loretoyacu, 2.—Ecuador: El Loreto, 2; Mapoto, 1; Sarayacu, 1.

<sup>2</sup> *Thraupis episcopus caerulea* Zimmer: Very close to *T. e. coelestis*, but coloration more bluish, and somewhat larger, approaching *T. e. major* in dimensions. Wing (males), 90–95, rarely 97; tail, 65–71, once 73.

This is rather an unsatisfactory race, but cannot well be united to either *T. e. coelestis* or *T. e. major*. Though we have not seen any material from Xeberos, Chamicuros, and the Ucayali, there seems hardly any doubt as to these localities being referable to the present race, since specimens from Yurimaguas and Moyobamba are inseparable from the typical series.

*Additional material examined*.—Peru: Huayabamba, 2.



*Thraupis episcopus caeruleus* Zimmer, Proc. Biol. Soc. Wash., 42, p. 94, 1929—Vista Alegre, junction of Chinchao and Huallaga rivers, Dept. Huánuco, Peru (type in Field Museum); idem, Field Mus. Nat. Hist., Zool. Ser., 17, p. 445, 1930—Vista Alegre and Chinchao, Peru.

*Tanagra coelestis* (not of Spix) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866; p. 180—part, upper Ucayali, Peru; idem, l.c., 1867; p. 749—Xeberos, Peru; idem, l.c., 1873, p. 261—part, lower and upper Ucayali, Xeberos, Yurimaguas, and Chamicuros, Peru; Taczanowski, l.c., 1879, p. 227—Tambillo; idem, l.c., 1880, p. 195—Callacate; idem, l.c., 1882, p. 13—Yurimaguas and Huambo (eggs descr.); idem, Orn. Pér., 2, p. 485, 1884—part, Xeberos, Ucayali, Yurimaguas, Chamicuros, Tambillo, Guajango, Callacate, Huayabamba, and Yurimaguas; Berlepsch, Journ. Orn., 37, p. 296, 1889—Tarapoto, Rio Huallaga; Salvin, Nov. Zool., 2, p. 5, 1895—Viña, Huamachuco, Rio Marañón; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1051, 1912—part, Peru (Xeberos, Ucayali, Yurimaguas, Chamicuros, Callacate, Huayabamba).

*Tanagra coelestis major* (not of Berlepsch and Stolzmann) Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Nuevo Loreto, Huallaga drainage; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1051, 1912—northern Peru (Tambillo, Guajango, Callacate, Guayabamba) (part).

*Thraupis coelestis major* Bangs and Noble, Auk, 35, p. 460, 1918—Huanca-bamba and Tabaconas, northern Peru.

*Range*.—Tropical zone of the northern parts of Peru, from the south bank of the Marañón south to Huánuco.

23: Peru (Yurimaguas, 2; Hacienda Limón, east of Balsas, 2; Moyobamba, 12; Vista Alegre, 3; Chinchao, 4).

\**Thraupis episcopus major* (Berlepsch and Stolzmann).<sup>1</sup>  
GREATER BLUE-GRAY TANAGER.

*Tanagra coelestis major* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 343—La Merced, Chanchamayo, and Garita del Sol, Vitoc, Dept. Junín, Peru (type, from La Merced, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 185, 1927); idem, Ornith., 13, pp. 81, 110, 1906—Santa Ana (Urubamba) and Huaynapata (Marcapata), Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1051, 1912—part, central and southeastern Peru.

*Thraupis episcopus major* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 23, 1920—Chaquimayo, Carabaya, Peru (crit.); Chapman, Bull. U. S. Nat. Mus., 117, p. 120, 1921—Santa Ana, Idma, Chauillay, and San Miguel Bridge, Urubamba, Peru.

*Tanagra coelestis* (not of Spix) Sclater, Proc. Zool. Soc. Lond., 22, p. 115, 1854—part, "Pontobamba," Peru; idem, l.c., 24, p. 232, 1856—part,

<sup>1</sup>*Thraupis episcopus major* (Berlepsch and Stolzmann): Similar to *T. e. coelestis*, but larger, with less white on the rump and smaller white apical spots to the greater upper wing coverts. Wing (male), 95–99; tail, 72–76.

*Additional material examined*.—Peru: La Merced, Chanchamayo, 1; Santa Ana, Urubamba, 1; Occobamba, Cuzco, 1; Marcapata, 2; Huaynapata, Marcapata, 1; Chaquimayo, Carabaya, 2.



Pintobamba [Dept. Cuzco], Peru; idem, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. a, Peru (ex Tschudi); Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 597—Cosnipata, Dept. Cuzco; Taczanowski, l.c., 1874, p. 513—Paltaypampa, Dept. Junín; Sclater and Salvin, l.c., 1876, p. 16—Huiro and Potrero, Urubamba; Taczanowski, Orn. Pér., 2, p. 485, 1884—part, Paltaypampa, Cosnipata, Potrero, and Quebrada de San Gaban, Carabaya; Sclater, Cat. Bds. Brit. Mus., 11, p. 155, 1886—part, spec. a, Peru (ex Tschudi).

*Tanagra episcopus* (not of Linnaeus) Sclater, Proc. Zool. Soc. Lond., 1873, p. 185—Cosnipata.

(?)*Tanagra episcopus leucoptera* (not of Sclater) Allen, Bull. Amer. Mus. N. H., 2, p. 81, 1889—Yungas, Bolivia.

*Range*.—Tropical (and Lower Subtropical) zone of the southern parts of Peru, north to Junín, and (?)adjoining section of Bolivia. 3: Peru (San Ramón, Chanchamayo, 3).

### ***Thraupis episcopus nesophilus* Riley.<sup>1</sup> TRINIDAD Tanager.**

*Tanagra sclateri* (not *Euphonia* [=*Tanagra*] *sclateri* Sundevall) Berlepsch, Ibis, (4), 4, p. 112, 1880—"Orinoco district or Trinidad" (type, from Trinidad, in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); Ridgway, Proc. U. S. Nat. Mus., 7, p. 173, 1884—Trinidad; Sclater, Cat. Bds. Brit. Mus., 11, p. 155, 1886—Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1051, 1912—part, Trinidad.

*Thraupis episcopus nesophilus* Riley, Proc. Biol. Soc. Wash., 25, p. 185, 1912—new name for *Tanagra sclateri* Berlepsch.

*Tanagra sayaca* (not of Linnaeus) Bonaparte, Rev. Mag. Zool., (2), 3, p. 170, 1851—part, Trinidad.

*Tanagra cana* (not of Swainson) Sclater, Proc. Zool. Soc. Lond., 24, p. 232, 1856—part, Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 130, 1922—Maracas Valley and Palo Seco, Trinidad (eggs descr.).

*Tanagra glauca* (not *Gracula glauca* Sparrman) Léotaud, Ois. Trinidad, p. 293, 1866—Trinidad.

*Tanagra cana sclateri* Chapman, Bull. Amer. Mus. N. H., 6, p. 29, 1894—Princetown; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 188, 1906—Aripo.

*Tanagra episcopus sclateri* Hellmayr, Nov. Zool., 13, p. 14, 1906—Trinidad (Caparo, Valencia, Chaguaramas, Pointe Gourde, Seelet); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 358, 1908—Carenage and Aripo.

*Range*.—Island of Trinidad.

<sup>1</sup>*Thraupis episcopus nesophilus* Riley: Most nearly related to *T. e. cana*, but rump and outer margins of remiges and rectrices decidedly bluish; the humeral patch light violet blue suffused with whitish; the lower parts distinctly tinged with bluish. Dimensions the same. Wing (males), 88–96; tail, 64–68.

In color of the humeral area this form is exactly intermediate between *episcopus* and *cana*. The type is identical with authentic Trinidad examples.

*Material examined*.—Trinidad: Caparo, 18; Santa Cruz, 3; Caroni, 2.

\**Thraupis episcopus berlepschi* (Dalmas).<sup>1</sup> BERLEPSCH'S  
TANAGER.

*Tanagra berlepschi* Dalmas, Mém. Soc. Zool. France, **13**, p. 136, 1900—Tobago (type in coll. of R. de Dalmas, subsequently at Tring, now in the American Museum of Natural History, New York).

*Tanagra episcopus berlepschi* Hellmayr, Nov. Zool., **13**, p. 15 (in text), 1906—Tobago (crit.).

*Tanagra sclateri berlepschi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1051, 1912—Tobago.

*Tanagra cana* (not of Swainson) Jardine, Ann. Mag. Nat. Hist., **20**, p. 332, 1847—Tobago; Strickland, l.c., p. 332, 1847—part, Tobago (crit.); Sclater, Proc. Zool. Soc. Lond., **24**, p. 232, 1856—part, Tobago; idem, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. d, e, Tobago; idem, Cat. Bds. Brit. Mus., **11**, p. 156, 1886—part, spec. k'-n', Tobago.

*Tanagra sclateri* (not of Berlepsch) Cory, Auk, **10**, p. 220, 1893—Tobago.

Range.—Island of Tobago.

121: Tobago.

\**Thraupis episcopus cana* (Swainson). GRAY TANAGER.

*Tanagra cana* Swainson, Orn. Draw., Part 3, pl. 37, 1836—no locality indicated; "Venezuela" suggested by Berlepsch (Verh. 5th Intern. Orn. Kongr. Berlin, p. 1051, 1912), restricted to Caracas by Hellmayr (Arch. Naturg., **90**, A, Heft 2, p. 185, 1924) (type presumably in the Swainson Collection, University Museum, Cambridge, England);<sup>2</sup> Strickland, Ann. Mag. Nat. Hist., **20**, p. 332, 1847—part, "Bogotá"; Sclater, Proc. Zool. Soc. Lond., **23**, p. 157, 1855—"Bogotá"; idem, l.c., **24**, p. 232, 1856—part, Venezuela and "Bogotá"; idem, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. a-c, f, Venezuela, "Santa Marta," and "Bogotá"; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 141—Turbo and Cartagena, Colombia; Wyatt, Ibis, 1871, p. 325—Santander, Colombia;

<sup>1</sup>*Thraupis episcopus berlepschi* (Dalmas): Similar to *T. e. nesophilus*, but much more bluish throughout; the interscapular region much darker, gobelin blue; the rump much brighter, almost venetian blue; the humeral patch plain cornflower blue without any whitish admixture; the under parts more strongly tinged with bluish. Wing (male), 92-98; tail, 67-73.

In the uniform blue humeral area the Tobago race more nearly approaches *T. e. cana*, but is much more bluish and darker throughout.

Additional material examined.—Tobago: Man o' War Bay, 21.

<sup>2</sup>Swainson's plate is not quite satisfactory, the humeral patch being too pale, though it might have been drawn from a female example taken in the Caracas region. In the "List of Plates" of the 1841 edition of the work *T. cana* is included under the "Birds of Brazil," in opposition to those of "Mexico," thus eliminating the possibility that a specimen of the Central American form (*T. e. diaconus*) served as model for the plate. No blue-shouldered representative of *T. episcopus* occurs anywhere in Brazil, but since such typically Venezuelan species as *Aglaia cyanoptera* and *Thryothorus rutilans* also figure among his "Birds of Brazil," too much importance should not be placed on this assertion. Swainson having described several other birds from the Caracas region, it seems appropriate to use the specific term *cana* in the sense of previous authors, until the type, if still extant, has been critically studied.

- Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 500—Medellin, Colombia (eggs descr.); Salvin and Godman, Ibis, 1880, p. 120—Santa Marta; Berlepsch, Journ. Orn., 32, p. 291, 1884—Bucaramanga, Colombia (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 156, 1886—part, spec. x-i', w', Colombia (Santa Marta, Medellin, "Bogotá," Chocó Bay) and Venezuela (San Esteban); Robinson, Flying Trip Trop., p. 161, 1895—Barranquilla to Honda and Guaduas, Colombia; Bangs, Proc. Biol. Soc. Wash., 12, p. 141, 1898—"Santa Marta"; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Punta de Sabana, Darien; Allen, Bull. Amer. Mus. N. H., 13, p. 169, 1900—Bonda and Cacagualito, Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 20, 1902—Orinoco River (Ciudad Bolivar, Altagracia, Quiribana de Caicara, Caicara) and Caura (La Unión), Venezuela; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 55, 1902—part, Colombia and Venezuela; Allen, Bull. Amer. Mus. N. H., 21, p. 292, 1905—Bonda, Masinga [Vieja], and Mamatoco, Colombia (nest and eggs descr.); Beebe, Zoologica (N.Y.), 1, p. 103, 1909—Guanoco and Guarapiche, Orinoco Delta, Venezuela; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1051, 1912—part, Venezuela and Colombia; Piguet, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Titiribi, Cauca, Colombia.
- Thraupis cana* Cabanis, Mus. Hein., 1, p. 29, 1851—Venezuela; Finsch, Proc. Zool. Soc. Lond., 1870, p. 580—"Trinidad," errore.
- Thraupis cana cana* Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 177, 1916—upper Orinoco, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 607, 1917—part, Dabeiba, Juntas de Tamaná, Nóvita, Noanamá, San José, Caldas, Las Lomitas, San Antonio, Puerto Valdivia, La Frijolera, Rio Frio, Cali, Guengüe, Popayán, Miraflores, Barro Blanco, near San Agustin, Chicalar, Andalucia, Honda, Tenasuca, El Alto de La Paz, and Calamar, Colombia; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 228, 1922—Mount Sapo, Darien; Griscom, l.c., 69, p. 189, 1929—El Tigre (Rio Cupe) and Cana, Darien; idem, l.c., 72, p. 370, 1932—Permé and Obaldia, eastern Panama.
- Thraupis episcopus cana* Todd and Carriker, Ann. Carnegie Mus., 14, p. 492, 1922—La Concepción, Tucurinca, Bonda, La Tigrera, Mamatoco, Minca, Fundación, Don Diego, Dibulla, and Santa Marta, Colombia; Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 185, 1924—Galipán and Loma Redonda, Caracas region, Venezuela (crit., variation); Darlington, Bull. Mus. Comp. Zool., 71, p. 418, 1931—Rio Frio, Magdalena.
- Tanagra sayaca* (not of Linnaeus) Bonaparte, Rev. Mag. Zool., (2), 3, p. 170, 1851—part, Venezuela.
- Tanagra diaconus* (not of Lesson) Sclater, Proc. Zool. Soc. Lond., 24, p. 233, 1856—part, Santa Marta; idem, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. c, b, "New Granada."
- Tanagra cana sclateri* (not of Berlepsch) Phelps, Auk, 14, p. 364, 1897—Cumanacoa and San Antonio [Sucre], Venezuela.
- Thraupis episcopus sclateri* Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 210, 1913—Cariaquito and Guinipa Village, Venezuela.
- Thraupis episcopus nesophilus* (not of Riley) Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 174, 1916—Orinoco Valley (nest and eggs descr.).



*Range.*—Venezuela (south to the Orinoco River and its tributaries), Colombia (excepting the extreme southwestern section), and eastern Panama (Darién).<sup>1</sup>

54: Panama (Colón, 18); Colombia (Calamar, Bolívar, 1; Cali, Cauca Valley, 1; El Guayabal, ten miles north of San José de Cucuta, Santander, 2; Tucurínca, Santa Marta, 1; Bogotá, 4); Venezuela (Caracas, 8; Catatumbo, 1; Encontrados, Zulia, 2; Macuto, Caracas, 3; Maracay, Aragua, 13).

\**Thraupis episcopus quaesita* Bangs and Noble.<sup>2</sup> SOUTHERN GRAY TANAGER.

*Thraupis cana quaesita* Bangs and Noble, Auk, 35, p. 460, 1918—Sullana, Dept. Piura, Peru (type in Museum of Comparative Zoology, Cambridge, Mass.); Chapman, Bull. Amer. Mus. N. H., 55, p. 672, 1926—western Ecuador (many localities between Esmeraldas and Cebollal) and north-western Peru (Pílares, Paletillas, Samata, Tumbes, Sullana, Palambla).

*Tanager cana* (not of Swainson) Sclater, Proc. Zool. Soc. Lond., 27, p. 139, 1859—Pallatanga, Ecuador; idem, l.c., 28, pp. 274, 292, 1860—Babahoyo and Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. g-k, Pallatanga and Babahoyo; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 236, 1869—Puna Island, Ecuador; Berlepsch and

<sup>1</sup> Birds from Caracas, with which those from Mérida and eastern Colombia (Santa Marta and "Bogotá") agree, are very constant in their characters, the lesser upper wing coverts being between smalt blue and cornflower blue. The inhabitants of northeastern Venezuela (Sucre) and the Orinoco basin are hard to place, being more or less intermediate to the Trinidad form (*T. e. nesophilus*), a fact which accounts for the doubts that have been cast on the validity of the insular race. However, when comparing twenty skins from Trinidad with an excellent series from eastern Venezuela, we notice that the latter are invariably of a more greenish general coloration and lack the bluish tone on rump and under parts. The humeral patch varies considerably, being either plain deep blue as in Caracas birds or violaceous suffused with whitish as in *nesophilus*. It appears, therefore, preferable to restrict *nesophilus* to Trinidad, while the birds from Sucre and the Orinoco basin, many of which are quite inseparable from true *cana* (typified by Caracas specimens), may be properly designated by the formula *nesophilus*±*cana*.

*Additional material examined.*—Venezuela: Guanoco, Orinoco Delta, 3; inland of Cumaná (Campos Alegre, Celci Puede, Santa Ana, Quebrada Secca), 11; Ciudad Bolívar, Río Orinoco, 6; La Unión, Río Caura, 1; Altagracia, Río Orinoco, 4; Caicara, 5; Quiribana de Caicara, 3; Galipán, Cerro del Avila, 8; Loma Redonda, Caracas, 8; San Esteban, 3; Mérida, 12.—Colombia: Santa Marta, 5; Barranquilla, 4; "Bogotá," 12; Bucaramanga, 5; Río Lima, Cauca, 4.—Darién: Punta de Sabana, 4.

<sup>2</sup> *Thraupis episcopus quaesita* Bangs and Noble: Very close to *T. e. cana*, but somewhat darker throughout, especially below, and the lesser upper wing coverts of a deeper blue.

Although I do not find the differences so strongly marked as claimed by the describers, the race is recognizable in adequate series. Two birds from Tumaco agree well with a series from western Ecuador and Peru.

*Additional material examined.*—Colombia: Tumaco, 2.—Ecuador: San Javier, 2; Ventana, 1; Cayandeled, 3; Chimbo, 2; Guayaquil, 3; Zaruma, 1; Babahoyo, 1.—Peru: Piura, 7.



Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 545—Guayaquil and Chimbo, Ecuador; idem, l.c., 1884, p. 290—Cayanded, Ecuador; idem, l.c., 1885, p. 81—Yaguachi, Ecuador; Taczanowski, Orn. Pér., 2, p. 486, 1884—Peru (Tumbez, Morrope, Paucal); Sclater, Cat. Bds. Brit. Mus., 11, p. 156, 1886—part, spec. o'-v', Ecuador (Babahoyo, Pallatanga, "Quito," Puna Island, "Loja"); Hartert, Nov. Zool., 5, p. 482, 1898—Cachaví and Chimbo, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Vinces, Balzar, and Rio Peripa, Ecuador; Goodfellow, Ibis, 1901, p. 466—Santo Domingo and Guanacillo, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 55, 1902—part, western Ecuador and northern Peru; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 101, 1911—Santo Domingo, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1051, 1912—part, western Ecuador and northwestern Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—Gualea, Ecuador.

*Thraupis cana cana* Chapman, Bull. Amer. Mus. N. H., 36, p. 607, 1917—part, Tumaco and Barbacoas, Colombia.

*Tanagra cyanoptera* (not of Vieillot) Taczanowski, Proc. Zool. Soc. Lond., 1877, p. 320—Tumbez, Peru.

*Range*.—Southwestern Colombia (south of the Rio Patia), western Ecuador, and northwestern Peru west of the Andes, south to Paucal.

4: Ecuador (Milagro, Guayas, 1; Puente de Chimbo, 3).

\**Thraupis episcopus diaconus* (Lesson).<sup>1</sup> NORTHERN GRAY Tanager.

*Tanagra (Aglaia) diaconus* Lesson, Rev. Zool., 5, p. 175, 1842—Realejo, Nicaragua (type in coll. of R. P. Lesson, present location unknown, possibly in the Rochefort Museum).

*Tanagra diaconus* Sclater, Proc. Zool. Soc. Lond., 24, p. 142, 1856—David, Chiriquí; idem, l.c., p. 233, 1856—part, Mexico (Córdoba), Guatemala, Nicaragua (Realejo), and Chiriquí; idem, l.c., p. 303, 1856—Córdoba, Vera Cruz; Moore, l.c., 27, p. 59, 1859—Omoa (Honduras), Petén (Guatemala), and Belize (British Honduras); Sclater, l.c., p. 364, 1859—vicinity of Jalapa; Sclater and Salvin, Ibis, 1859, p. 16—Guatemala; idem, Ibis, 1860, p. 33—Dueñas, Guatemala; Taylor, Ibis, 1860, p. 111—Honduras; Sclater, Cat. Coll. Amer. Bds., p. 75, 1862—part, spec. c-e, Honduras and Mexico; idem, Proc. Zool. Soc. Lond., 1864, p. 173—"vicinity of Mexico City"; Sclater and Salvin, l.c., 1864, p. 350—Isthmus of Panama; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—San José, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, pp. 178, 180, 1865—David, Chiriquí, and

<sup>1</sup> A very unsatisfactory race. If recognized at all, the best course seems to be to refer to *diaconus* all the gray tanagers from Mexico south to the Panama Canal Zone, although the inhabitants of southern Central America are by no means typical, but variously intermediate to *cana*. Birds from San Miguel Island I am unable to separate.

From all parts of the range excepting southern Mexico 124 specimens have been examined in this connection.

Greytown, Nicaragua; idem, l.c., 9, p. 99, 1868—Costa Rica (San José, Angostura); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 550, 1869—hot region of Vera Cruz; Frantzius, Journ. Orn., 17, p. 298, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Santa Fé, Veragua, and David, Chiriquí; idem, l.c., 1870, p. 187—Calovévora and Chitrá, Veraguas; Sclater and Salvin, l.c., 1870, p. 836—[San Pedro], Honduras; Salvin, Ibis, 1872, p. 316—Chontales, Nicaragua.

*Tanagra episcopus* (not of Linnaeus) Bonaparte, Proc. Zool. Soc. Lond., 5, p. 116, 1837—Guatemala (diag.).

*Tanagra cana* (not of Swainson) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 279, 1861—Isthmus of Panama; Boucard, Proc. Zool. Soc. Lond., 1878, p. 54—San José, Costa Rica; idem, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 42, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 277, 1883—part, Mexico to Panama (excl. South American localities and references); Sclater, Cat. Bds. Brit. Mus., 11, p. 156, 1886—part, spec. a-w, Mexico to Panama; Ridgway, Proc. U. S. Nat. Mus., 10, pp. 580, 585, 1887—Honduras (Truxillo and Segovia River); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Costa Rica (Alajuela, San José, Cartago, Santa Maria de Dota), and Panama; Cherrie, Auk, 9, p. 25, 1892—San José, Costa Rica; idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 137, 1893—Boruca and Buenos Aires, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 488, 1893—Greytown and Rio Escondido, Nicaragua; Underwood, Ibis, 1896, p. 435—Miravalles, Costa Rica; Lantz, Trans. Kans. Acad. Sci., 16, p. 223, 1899—Palín, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 55, 1902—part, southern Mexico to Panama; Bangs, Bull. Mus. Comp. Zool., 39, p. 155, 1903—Ceiba, Honduras; Thayer and Bangs, l.c., 46, p. 221, 1906—savanna of Panama; Bangs, Auk, 24, p. 309, 1907—Boruca, Costa Rica; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 121, 1907—Guatemala (Los Amates, Mazatenango, San José); Ferry, l.c., p. 278, 1910—Costa Rica (Guayábo, Port Limón).

*Thraupis cana cana* Carriker, Ann. Carnegie Mus., 6, p. 857, 1910—Costa Rica (habits); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 278, 1918—Toro Point and Gatún, Panama.

*Thraupis cana* Hallinan, Auk, 41, p. 322, 1924—Panama (Gatun, Mindi, New Culebra, Farfan).

*Tanagra cana diaconus* Ridgway and Nutting, Proc. U. S. Nat. Mus., 5, p. 391, 1882—La Palma, Gulf of Nicoya, Costa Rica; Ridgway, l.c., 5, p. 499, 1883—San José, Costa Rica; Nutting, l.c., 6, p. 399, 1884—Los Sábalo, Nicaragua; Bangs, Proc. New Engl. Zool. Cl., 2, p. 30, 1900—Loma del León, Panama; idem, Auk, 18, p. 32, 1901—San Miguel Island, Panama; idem, Auk, 18, p. 369, 1901—Divalá and David, Panama; idem, Proc. New Engl. Zool. Cl., 3, p. 65, 1902—Boquete and Bogaba, Chiriquí; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1052, 1136, 1912—southern Mexico to Panama and San Miguel Island (crit.); Peters, Auk, 30, p. 379, 1913—Camp Mengel, Quintana Roo, Mexico; Rendahl, Ark. Zool., 12, No. 8, p. 34, 1909—Panama (Pacora) and Nicaragua (San Juan

del Norte); idem, l.c., 13, No. 4, p. 51, 1920—Saboga and Trapiche Islands, Pearl Archipelago (crit.).

*Thraupis diaconus* Cabanis, Journ. Orn., 8, p. 330, 1860—Costa Rica (crit.).

*Tanagra cana dilucida* Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 157, Sept., 1905—San Miguel Island, Bay of Panama (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 405, 1930).

*Thraupis cana diaconus* Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 463, 1928—Almirante, Panama; Peters, Bull. Mus. Comp. Zool., 69, p. 471, 1929—Tela, Honduras; idem, l.c., 71, p. 341, 1931—Panama (Changuinola, Almirante, Isla Grande, Crimacola); Griscom, Bull. Amer. Mus. N. H., 64, p. 376, 1932—Guatemala (Chimoxan, Finca Chamá, Chipoc, Puebla, San Antonio, Panajachel, San Lucas, Hacienda California, Finca El Cipres, Pantaleon) (crit.); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 244, 1932—Eden, Nicaragua; Stone, l.c., p. 338, 1932—Cantarranas, Honduras.

*Range*.—Southeastern Mexico, in states of Vera Cruz (Jalapa, Córdoba, Orizaba), Tabasco (Teapa), and Quintana Roo (Camp Mengel), and southwards through Central America to the Isthmus of Panama and the Pearl Islands.

25: Mexico (Teapa, Tabasco, 1); Guatemala (Los Amates, Izabal, 1; Mazatenango, 2; San José, 1); Nicaragua (San Emilio, 1; San Gerónimo, 1); Costa Rica (Guayábo, 5; Port Limón, 8; Rio Matina, 1; San José, 2; Volcan de Irazú, 1; unspecified, 1).

**\**Thraupis cyanoptera* (Vieillot).<sup>1</sup> BLUE-WINGED TANAGER.**

*Sallator cyanopterus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 104, 1817—"au Brésil"; idem, Tabl. Enc. Méth., Orn., livr. 91, p. 790, 1822—Brazil (type stated to be in Paris Museum).<sup>2</sup>

<sup>1</sup> *Thraupis cyanoptera* (Vieillot), a very distinct species, cannot by any means be confused with *T. sayaca*, from which it differs readily in all plumages by larger size; considerably thicker and stouter bill; dark glaucous gray upper parts; calamine blue edges to greater wing coverts, wing and tail feathers; pale glaucous blue breast and sides (more greenish on the flanks); and especially by the extensive, bright cornflower blue humeral patch. The female merely differs by smaller, as well as somewhat duller shoulder patch, while young birds have the sides and flanks strongly washed with olivaceous (light hellebore green).

This species is wholly confined to the wooded coast region of southeastern Brazil.

*Additional material examined*.—Brazil: Victoria, Espirito Santo, 2; Iguapé, São Paulo, 2; Joinville, Santa Catharina, 8; Blumenau, Santa Catharina, 12; Taquara, Rio Grande do Sul, 6.

<sup>2</sup> I could not find the type in the French National Collection, but the description ("une grande marque d'un bleu d'outremer en forme d'épaulette" on the wing) is quite unmistakable. The original specimen probably came from the vicinity of Rio de Janeiro. Mrs. Naumburg (Auk, 41, p. 112, 1924) suggests Nova Friburgo as type locality.



*Tanagra argentata* G. R. Gray, Genera Bds., 2, p. 364, July, 1844—based on *Tanagra episcopus* (not of Linnaeus) Swainson, Orn. Draw., Part 3, pl. 39, 1836; Brazil.<sup>1</sup>

*Tanagra sayaca* Wied, Beitr. Naturg. Bras., 3, (1), p. 484, 1830—Brazil (part, descr. of male); Burmeister, Syst. Uebers. Th. Bras., 3, p. 176, 1856—Brazil (part, descr. of male).

*Thraupis cyanoptera* Cabanis, Mus. Hein., 1, p. 29, 1851—Rio Grande [do Sul], Brazil (synon.); idem, Journ. Orn., 14, pp. 305, 306, 1866 (crit.); Dabbene, Bol. Soc. Physis, 1, p. 362, 1914—Buenos Aires; Naumburg, Auk, 41, p. 112, 1924—Therezopolis and Nova Friburgo, Rio (crit.); Holt, Bull. Amer. Mus. N. H., 57, p. 321, 1928—Monte Serrat, Itatiaya.

*Thraupis cyanopterus* Bertoni, El Hornero, 3, p. 397, 1926—Puerto Bertoni, Alto Paraná, Paraguay.

*Tanagra cyanoptera* Bonaparte, Rev. Mag. Zool., (2), 3, p. 170, 1851—Brazil, Paraguay, and Rio Grande [do Sul] (diag.); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 241 (occurrence in Minas Geraes denied); Hamilton, Ibis, 1871, p. 303—part, south of São Paulo; Berlepsch, Journ. Orn., 21, p. 240, 1873—Blumenau, Santa Catharina (crit., plumages); idem and Ihering, Zeits. Ges. Orn., 2, p. 119, 1885—Taquara, Rio Grande do Sul (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 157, 1886—part, southern Brazil;<sup>2</sup> Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Rio Grande do Sul; Ihering, Rev. Mus. Paul., 3, p. 149, 1899—Iguapé, São Paulo; idem, l.c., 4, p. 153, 1900—Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 357, 1907—São Paulo (Ubatuba, Santos, Alto da Serra) and Rio Grande do Sul (Novo Hamburgo); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1052, 1912—coast region of southeastern Brazil, from Espírito Santo to Rio Grande do Sul; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 487, 499, 1912—Fernandes Pinheiro, Paraná; Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 657, 1924—Buenos Aires.

*Range.*—Wooded coast region of southeastern Brazil, from Espírito Santo (Braço do Sul, near Victoria) and Rio de Janeiro (Nova Friburgo; Therezopolis, Organ Mountains) to Rio Grande do Sul, west through Paraná to eastern Paraguay (Alto Paraná); (?)accidental near Buenos Aires.<sup>3</sup>

<sup>1</sup> *Tanagra inornata* Swainson (Orn. Draw., Part 4, pl. 40, 1836?) may have been based on an immature bird of the present species. The general coloration, notably the greenish flanks, speak for this identification, while the greenish (instead of pale cerulean blue) lesser wing coverts rather point to *T. s. sayaca*. Without examination of the type specimen, which possibly still exists in the Swainson Collection at Cambridge, England, it will be difficult to properly allocate the name.

<sup>2</sup> The author confused the species with *T. s. sayaca* and *T. s. obscura*. While all the specimens from Argentina and Bolivia (spec. n-w) pertain to the latter, it has to be ascertained by reexamination of the material, which ones of the Brazilian birds listed by Sclater are referable to *T. cyanoptera*.

<sup>3</sup> Dabbene mentions a specimen taken in the vicinity of Buenos Aires as being in the collections of the Museo Nacional, possibly an escaped cage-bird. All records of *T. cyanoptera* from the western parts of Argentina and Bolivia are due to confusion with *T. sayaca obscura*.



6: Brazil (Therezopolis, Rio de Janeiro, 2; Santa Catharina, Joinville, 4).

**\**Thraupis sayaca glaucocolpa* Cabanis.<sup>1</sup> GLAUCOUS TANAGER.**

*Thraupis glaucocolpa* Cabanis, Mus. Hein., 1, p. 28, Oct., 1851—"Caracas," Venezuela (type in Heine Collection, now in Municipal Museum, Halberstadt); Chapman, Bull. Amer. Mus. N. H., 36, p. 608, 1917—La Playa, Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 491, 1922—Dibulla, Arroyo de Arenas, and Fonseca, Santa Marta region, Colombia.

*Tanagra cyanilia* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 383, 1854—Venezuela (type in coll. of E. and J. Verreaux, now in British Museum); idem, Not. Orn. Coll. Delattre, p. 62, 1854 (reprint).

*Tanagra glaucocolpa* Sclater, Cat. Bds. Brit. Mus., 11, p. 159, 1886—Venezuela; Allen, Bull. Amer. Mus. N. H., 4, p. 51, 1892—Carúpano, Sucre, Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 176, 1901—La Guayra, Venezuela; Clark, Auk, 19, p. 266, 1902—El Valle, Margarita Island; Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 249, 254, 1909—Margarita Island; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1053, 1912—Venezuela (Puerto Cabello) and Colombia (Barranquilla).

*Tanagra glaucocolpa* Robinson, Proc. U. S. Nat. Mus., 18, p. 678, 1896—El Valle, Margarita Island; Lowe, Ibis, 1907, p. 568—Margarita Island.

*Tanagra cana*(?) (not of Swainson) Robinson, Proc. U. S. Nat. Mus., 18, p. 695, 1896—La Guaira, Venezuela.

*Range*.—Tropical zone of the north coast of Venezuela, east to the Paria Peninsula and Margarita Island, and Colombia, west to the mouth of the Rio Magdalena (La Playa; Barranquilla).

14: Venezuela (Cumaná, 2; Margarita Island, 7; Macuto, Caracas, 2; Maracaibo, 1; Rio Aurare, Zulia, 2).

**\**Thraupis sayaca sayaca* (Linnaeus). SAYACA TANAGER.**

*Tanagra sayaca* Linnaeus, Syst. Nat., 12th ed., 1, p. 316, 1766—based on "Sayacu" Marcgrave (Hist. Nat. Brasil., p. 193) and Edwards (Glean. Nat. Hist., 3, p. 293, pl. 351), Brazil;<sup>2</sup> Wied, Beitr. Naturg. Bras., 3, (1), p. 484, 1830—southeastern Brazil (part, descr. of female); Burmeister, Syst. Uebers. Th. Bras., 3, p. 176, 1856—Lagõa Santa, Minas Geraes (part, descr. of female); idem, Journ. Orn., 8, p. 253, 1860—Paraná; idem, Reise La Plata St., 2, p. 479, 1861—Paraná; Euler, Journ. Orn., 15, p. 410, 1867—Cantagallo (nest and eggs); Pelzeln, Orn. Bras., 3, p. 208,

<sup>1</sup>*Thraupis sayaca glaucocolpa* Cabanis: Similar to *T. s. sayaca*, but slightly smaller; breast and sides strongly washed with light dull glaucous blue (greenish glaucous blue in females); external margins to remiges paler, deep bluish glaucous rather than glaucous blue; back in the male sex brighter greenish.

Specimens from Margarita Island agree with others from the Venezuelan mainland and Barranquilla.

*Additional material examined*.—Venezuela: Carúpano, 2; San Felix, near Cumaná, 10; Puerto Cabello, 1.—Colombia: Barranquilla, 2.

<sup>2</sup>Pernambuco suggested as type locality by Mrs. Naumburg (Auk, 41, p. 111, 1924).

1870—Rio de Janeiro, Sapitiba, Ypanema, Itararé, Rio Paraná, Curitiba, Abrantes, Cuyabá, and Engenho do Gama, Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 430—Minas Geraes (Lagõa Santa and Corrego Rico, near Paracatú); Doering, Per. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Forbes, Ibis, 1881, p. 332—Pernambuco and Parahyba; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 119, 1885—Taquara, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 158, 1886—Ceará, Pernambuco, Bahia, and Rio de Janeiro; Berlepsch, Journ. Orn., 35, p. 6, 1887—Lambaré, Paraguay; Sclater and Hudson, Arg. Orn., 1, p. 39, 1888—Argentina (part); Allen, Bull. Amer. Mus. N. H., 3, p. 354, 1891—Chapada, Matto Grosso; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio; Kerr, Ibis, 1892, p. 124—Fortín Nueve, Paraguay; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 4, 1895—Paraguay (Ajos, Villa Rica) and Matto Grosso (Corumbá); idem, l.c., 15, p. 378, p. 4, 1900—Urucúm, Matto Grosso; Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Rio Grande do Sul (Mundo Novo, Pedras Brancas); idem, Rev. Mus. Paul., 3, p. 149, 1899—São Paulo (Piquete, São Sebastião); idem, l.c., 4, p. 153, 1900—Cantagallo; Kerr, Ibis, 1901, p. 223—Paraguay (Villa Concepción and lower Pilcomayo); Nicoll, Ibis, 1904, p. 40—Bahia; Ihering, Cat. Faun. Braz., 1, p. 357, 1907—São Paulo (Piquete, Campos de Jordão, Santos, Itararé, São Sebastião, Bebedouro, Botucatu), Minas Geraes (Vargem Alegre, Marianna), and Espirito Santo; Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 376, 1910—part, Buenos Aires and Entre Ríos; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—Bahia (Boca da Ipueiro, Rio Grande, and Fazenda de Santo Antonio, Rio Preto); Chubb, Ibis, 1910, p. 625—Paraguay (Sapucay and Ybitimi; nest and eggs); Grant, Ibis, 1911, p. 92—part, Entre Ríos (Goya, Santa Elena), Paraguay (Monte Alto, Cabo Emma, Puerto Maria), and Buenos Aires (Ajó); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1052, 1912—part, Brazil, Paraguay, and Uruguay; Ménégau, Rev. Franç. d'Orn., 10, p. 7, 1919—Villa Lutetia, Misiones; Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia; idem and Pinto da Fonseca, l.c., 13, p. 493, 1923—Ilha dos Alcatrazes, São Paulo; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Monte Serrat, Itatiaya; Velho, l.c., p. 263, 1923—same locality; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 41, 1926—Ceará.

*Tanagra sayaca sayaca* Hartert and Venturi, Nov. Zool., 16, p. 171, 1909—Chaco (Ocampo) and Buenos Aires (eggs descr.).

*Thraupis sayaca* Cabanis, Mus. Hein., 1, p. 28, 1851—Brazil; idem, Journ. Orn., 14, p. 305, 1866 (crit.); idem, l.c., 22, p. 83, 1874—Cantagallo, Rio; Tremoleras, El Hornero, 2, p. 23, 1920—Uruguay; Serié and Smyth, l.c., 3, p. 52, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., 3, p. 171, 1923—Campana and San Isidro, Buenos Aires; Hellmayr, Nov. Zool., 30, p. 240, 1923—part, spec. No. 1, Corrientes; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 192, 1926—Fazenda Ferreira, Paraná; Holt, Bull. Amer. Mus. N. H., 57, p. 321, 1928—Monte Serrat, Serra do Itatiaya.

*Thraupis sayaca sayaca* Dabbene, Anal. Mus. Nac. Hist. Nat. Buenos Aires, 23, p. 355, 1912—Villa Rica, Paraguay; idem, El Hornero, 1, p. 243,

- 1919—Isla Martín García, Buenos Aires; Marelli, Mem. Min. Obr. Públ. for 1922-23, p. 657, 1924—Buenos Aires, Entre Ríos, etc.; Naumburg, Auk, 41, p. 111, 1924 (range, crit.); idem, Bull. Amer. Mus. N. H., 60, p. 373, 1930—Matto Grosso; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 281, 1929—Maranhão (Barra do Corda, São Francisco), Piauhy (Ibiapaba, Arára), and Ceará (Varzea Formosa, Serra de Baturité).
- Tanagra prelatus* Lesson, Traité d'Orn., p. 462, 1831—Brazil (part, descr. of male; type, collected by Delalande in the vicinity of Rio de Janeiro, examined in Paris Museum).
- Tanagra swainsoni* G. R. Gray, Genera Bds., 2, p. 363, July, 1844—based on *Tanagra caelestes* Swainson, Orn. Draw., Part 4, pl. 41, 1836(?); Brazil.
- Tanagra virens* (not *Loxia virens* Linnaeus) Strickland, Ann. Mag. Nat. Hist., 20, p. 392, 1847—Brazil (diag.).
- Tanagra cyanoptera* (not of Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 139—Conchitas, Buenos Aires; Hudson, l.c., 1870, p. 114—Buenos Aires; Hamilton, Ibis, 1871, p. 303—São Paulo (in part); Durnford, Ibis, 1878, p. 59—Buenos Aires; Barrows, Bull. Nutt. Orn. Cl., 8, p. 91, 1883—Concepción del Uruguay, Entre Ríos; Sclater, Cat. Bds. Brit. Mus., 11, p. 157, 1886—part, spec. l, m, q-s, Uruguay, Misiones, and Buenos Aires; Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 375, 1910—Chaco (Mocoví) and Buenos Aires.
- Thraupis sayaca obscura* (not of Naumburg) Wetmore, Bull. U. S. Nat. Mus., 133, p. 393, 1926—Chaco (Resistencia, Las Palmas), Formosa (Formosa), and Paraguay (west of Puerto Pinasco) (crit.); Pereyra, El Hornero, 4, p. 33, 1927—Pueblo Brugo, Entre Ríos; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 270, 1930—part, Formosa (San José, Tapi-kiolé, Lapango, Yuncá Viejo, Mission Taacaglé).

*Range.*—Eastern and southern Brazil, from Ceará and interior of Maranhão and Piauhy to Matto Grosso and Rio Grande do Sul; Uruguay; Paraguay; eastern Argentina, Chaco to Buenos Aires.

46: Brazil (Barra do Corda, Maranhão, 1; São Francisco, Maranhão, 1; Arára, Piauhy, 1; Ibiapaba, Piauhy, 2; Serra de Baturité, Ceará, 3; Varzea Formosa, Ceará, 3; Macaco Secco, near Andarahy, Bahia, 2; Rio de Peixe, near Queimadas, Bahia, 1; Santo Amaro, Bahia, 4; Therezopolis, Rio de Janeiro, 5; Baurú, São Paulo, 2; Joinville, Santa Catharina, 7; Veadeiros, Goyáz, 3; Chapada, Matto Grosso, 4; Piraputanga, Matto Grosso, 1; Urúcum de Corumbá, Matto Grosso, 3); Argentina (Eldorado, Misiones, 1; Caraguatay, Misiones, 2).

\**Thraupis sayaca obscura* Naumburg.<sup>1</sup> WESTERN SAYACA TANAGER.

<sup>1</sup>*Thraupis sayaca obscura* Naumburg: Similar to *T. s. sayaca*, but on average slightly darker above and below with the lesser wing coverts and outer margins of the remiges darker greenish blue.

I am not impressed with the propriety of recognizing this form. When comparing some years ago the original series from Bolivia and Tucumán in the



- Thraupis sayaca obscura* Naumburg, Auk, 41, p. 111, 1924—Parotani, Dept. Cochabamba, Bolivia (type in the American Museum of Natural History, New York); Friedmann, Bull. Mus. Comp. Zool., 68, p. 227, 1927—Tucumán (Concepción, Río de Gastone); Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 270, 1930—part, Bolivia (Villa Montes and Fortín Esteros, Tarija; La Crecencia, Santa Cruz; Cuevo, Chuquisaca).
- Aglaia episcopus* (not *Tanagra episcopus* Linnaeus) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 33, 1837—Yungas and Cochabamba, Bolivia.
- Tanagra episcopus* d'Orbigny, Voy. Amér. Mérid., Ois., p. 274, 1839—part, Bolivia (Cochabamba, Valle Grande, Yungas).
- Tanagra sayaca* (not of Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 600—Bolivia (Cochabamba, Valle Grande, Yungas, Sorata); Sclater and Hudson, Arg. Orn., 1, p. 39, 1888—Argentina (part); Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 91, 1891—Córdoba; Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 6, 1897—Jujuy (San Lorenzo), Salta (Campo Santo), and Bolivia (Aguairenda, Caiza); Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 175, 1902—Tucumán; Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Baer, Ornith., 12, p. 215, 1904—Santa Ana and Lules, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 376, 1910—part, Córdoba, Tucumán, Salta, and Jujuy; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1052, 1912—part, western Argentina (Orán, Salta) and Bolivia.

American Museum with some forty Brazilian and Paraguayan specimens, the western birds appeared to me somewhat larger and darker, but additional material since examined tends to lessen the constancy of these divergencies though it must be admitted that Brazilian examples never attain the maximum measurements of the Bolivian ones. However, the inhabitants of western Argentina (Tucumán) are already smaller and hardly differ in dimensions from typical *sayaca*. While Mrs. Naumburg extends the range of *T. s. obscura* as far south as Buenos Aires, it seems to me that, if recognized at all, it should be restricted to Bolivia and the adjacent parts of western Argentina. Birds from Corrientes and Buenos Aires I am unable to separate from others taken in various parts of Brazil. The allocation of the Sayaca Tanagers found in the Argentine Chaco is very difficult. They are scarcely larger than typical *sayaca*, but frequently quite as dark as Bolivian birds. It is really a matter of personal preference whether to refer them to one rather than the other of the two races. The question requires renewed study with much more comprehensive material than is at present available.

*Additional material examined.*—*T. s. sayaca*.—Brazil: Bahia, 12; Victoria, Espirito Santo, 1; Leopoldina, Rio Araguaya, Goyás, 1; La Raiz, Organ Mountains, Rio de Janeiro, 1; Ypanema, São Paulo, 12; Rio Paraná, São Paulo, 1; São Bernardo, São Paulo, 1; Agua Suja, near Bagagem, Minas Geraes, 2; Curytiba, Paraná, 1; Matto Grosso (Chapada, Cuyabá, Urucúm, Engenho do Gama), 20; Taquara, Rio Grande do Sul, 10.—Paraguay: Bernalcué, 3; Trinidad, 1; Fort Wheeler, 2.—Argentina: Corrientes, 1; Puerto Segundo, Misiones, 1; Santa Elena, Entre Ríos, 2; Buenos Aires, 3; Formosa (San José, Tapikiolé, Lapango, etc.), 8. *T. s. obscura*.—Bolivia: Cochabamba, 2; Parotani, 3; Tujma, 3; Vinto, 1; Apolobamba, La Paz, 2; Chilon, Santa Cruz, 1; Vermejo, Santa Cruz, 1; La Crecencia, Santa Cruz, 2; Cuevo, Chuquisaca, 1; Villa Montes, Tarija, 3; Fortín Esteros, Tarija, 1.—Argentina: San Pablo, Tucumán, 3; Tafi Trail, Tucumán, 1; Sarmiento, Tucumán, 1; Santa Ana, Tucumán, 2.



*Thraupis sayaca* Hellmayr, Nov. Zool., 30, p. 240, 1923—part, spec. Nos. 2, 3, Cochabamba, Bolivia.

*Tanagra cyanoptera* (not Vieillot) Sclater, Cat. Bds. Brit. Mus., 11, p. 157, 1886—part, spec. n-p, t-w, Orán (Salta) and Bolivia (Sorata); Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Yungas, Bolivia; Lönnberg, Ibis, 1903, p. 471—Bolivian Chaco.

*Range.*—Bolivia and western Argentina south to Córdoba.

26: Bolivia (Parotani, Cochabamba, 6); Argentina (Concepción, Tucumán, 19; Los Vasquez, Tucumán, 1).

\**Thraupis ornata* (Sparman). ARCHBISHOP TANAGER.

*Tanagra ornata* Sparman, Mus. Carls., fasc. 4, pl. 95, 1789—"in India Orientali," errore, Rio de Janeiro substituted (by Berlepsch, 1912) as type locality (type in Museum Carlson); Swainson, Orn. Draw., Part 4, pl. 42, 1836(?)—Brazil; Bonaparte, Consp. Gen. Av., 1, (1), p. 238, 1850—"Peru," errore; idem, Rev. Mag. Zool., (2), 3, p. 170, 1851—Brazil (part, descr. of "male"<sup>1</sup>); Burmeister, Syst. Uebers. Th. Bras., 3, p. 174, 1856—Bahia "north to Guyana"; Sclater, Proc. Zool. Soc. Lond., 24, p. 234, 1856—southeastern Brazil and "British Guiana (Schomburgk)"; Sundevall, Vetensk.-Akad. Handl., 2, No. 3, p. 14, 1857 (crit.); Sclater, Cat. Coll. Amer. Bds., p. 76, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 209, 1870—Rio de Janeiro (Corcovado and As Araras) and São Paulo (Ypanema); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 431—Minas Geraes (Lagõa Santa, Sete Lagõas); Hamilton, Ibis, 1871, p. 303—São Paulo; Berlepsch, Journ. Orn., 21, p. 242, 1873—Blumenau, Santa Catharina; Sclater, Cat. Bds. Brit. Mus., 11, p. 161, 1886—Rio de Janeiro (Nova Friburgo), São Paulo, "Pelotas, Rio Grande do Sul," and "Rio Claro, Goyáz"; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio; Ihering, Rev. Mus. Paul., 3, p. 150, 1899—São Paulo (São Sebastião, Iguapé); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo; idem, Cat. Faun. Braz., 1, p. 358, 1907—São Paulo (Ypiranga, Campos de Jordão, Santos, Alto da Serra, São Sebastião), Minas Geraes (Vargem Alegre), and Espirito Santo; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1905—Monte Serrat, Serra do Itatiaya; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1054, 1912—Bahia to Santa Catharina and "Goyáz (Rio Claro)"; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 254, 1923—Monte Serrat, Itatiaya.

*Thraupis ornata* Cabanis, Mus. Hein., 1, p. 28, 1851—Brazil; idem, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro; Holt, Bull. Amer. Mus. N. H., 57, p. 321, 1928—Serra do Itatiaya.

*Tanagra archiepiscopus* Desmarest, Hist. Nat. Tang., livr. 7, pls. 17, 18, 1806—"Pérou (coll. Dombey)"=vicinity of Rio de Janeiro<sup>2</sup> (types in Paris Museum); Spix, Av. Bras. Spec. Nov., 2, p. 42, pl. 55, fig. 1, 1825—Rio de Janeiro (cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 676, 1906); Wied, Beitr. Naturg. Bras., 3, (1), p. 481, 1830—Nazareth das

<sup>1</sup> The description of the female refers to *T. palmarum*.

<sup>2</sup> Cf. footnote on page 156.

Farinhas, Rio Jagoaripa, Bahia; Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 670, 1848 [=1849]—"British Guiana."

*Range*.—Wooded region of southeastern Brazil, from Bahia, Espirito Santo, and Minas Geraes south to Santa Catharina.<sup>1</sup>

2: Brazil (Joinville, Santa Catharina, 1; unspecified, 1).

**\**Thraupis abbas* (Lichtenstein). ABBOT TANAGER.**

*Tanagra abbas* Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, Sept., 1830—Mexico (type, from Oaxaca, in Berlin Museum; cf. van Rossem, Bull. Mus. Comp. Zool., 77, p. 419, 1934) [Cabanis, Journ. Orn., 11, p. 57, 1863 (reprint)]; Sclater, Proc. Zool. Soc. Lond., 24, p. 235, 1856—Mexico (Córdoba, Orizaba), Guatemala, and Honduras; idem, l.c., 24, p. 303, 1856—Córdoba, Vera Cruz; idem, l.c., 26, p. 358, 1858—Lake of Yojoa, Honduras; idem, l.c., 27, pp. 364, 378, 1859—Jalapa (Vera Cruz), Teotalcingo and Villa Alta (Oaxaca), Mexico; idem, l.c., 1864, p. 173—"Vicinity of Mexico City"; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 550, 1869—Vera Cruz up to Orizaba; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—San Pedro, Honduras; Lawrence, Bull. U. S. Nat. Mus., 4, p. 19, 1876—Guichicovi, Oaxaca; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 43, 1878—Guatemala; Salvin, Cat. Strickl. Coll., p. 189, 1882—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 278, 1883—Mexico to Honduras; Sclater, Cat. Bds. Brit. Mus., 11, p. 162, 1886—Mexico (Orizaba, Jalapa), British Honduras (Belize), Guatemala (Cahabon, Coban, Choctum, Chisec, Dueñas, Retalhuleu), and Honduras (San Pedro); Ferrari-Perez, Proc. U. S. Nat. Mus., 9, p. 140, 1886—Jalapa, Vera Cruz; Ridgway, l.c., 10, pp. 580, 585, 1887—Honduras (Truxillo and Segovia River); Richmond, l.c., 18, p. 631, 1896—Altamira, Tamaulipas; Chapman, Bull. Amer. Mus. N. H., 10, p. 27, 1898—Jalapa, Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 60, 1902—southern Mexico to Honduras (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 155, 1903—Ceiba and Yaruca, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 121, 1907—Guatemala (Los Amates, Patulul, Mazatenango, Lake Atitlan); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1054, 1912—southern Mexico to Honduras; Peters, Auk, 30, p. 379, 1913—Camp Mengel, Quintana Roo.

*Tanagra (Aglaia) vicarius* Lesson, Cent. Zool., pl. 68, "Jan.," 1831—Mexico (location of type not stated).

*Tanagra vicarius* Bonaparte, Proc. Zool. Soc. Lond., 5, p. 116, "1837" [=June, 1838]—Guatemala (crit.); idem, Consp. Gen. Av., 1, (1), p. 238, 1850—Mexico; idem, Rev. Mag. Zool., (2), 3, p. 171, 1851—Mexico; Sclater and Salvin, Ibis, 1859, p. 16, pl. 5, fig. 1 (egg)—Dueñas and Vera Paz, Guatemala (nest and eggs descr.); Moore, Proc. Zool. Soc. Lond., 27, p. 59,

<sup>1</sup> The alleged occurrence in Rio Grande do Sul has not been corroborated (cf. Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899), and the locality "Rio Claro, Goyáz" is due to confusion with a place of the same name in São Paulo. Schomburgk includes it in the fauna of British Guiana, which is doubtless a mistake.

*Additional material examined*.—Bahia, 4; Rio de Janeiro (Corcovado), 2; As Araras, Rio de Janeiro, 1; Ypanema, São Paulo, 3; Joinville, Santa Catharina, 15.

1859—Omoa (Honduras), Petén (Guatemala), and Belize (British Honduras); Taylor, *Ibis*, 1860, p. 111—Lake of Yojoa, Honduras.

*Thraupis vicarius* Cabanis, *Mus. Hein.*, 1, p. 29, 1851—Mexico.

*Thraupis abbas* Bangs and Peters, *Bull. Mus. Comp. Zool.*, 67, p. 486, 1927—Presidio, Vera Cruz; Austin, *l.c.*, 69, p. 391, 1929—Mountain Cow and Camp 6, British Honduras; Peters, *l.c.*, p. 471, 1929—Progreso and Tela, Honduras; Griscom, *Bull. Amer. Mus. N. H.*, 64, p. 377, 1932—Guatemala (many localities); Huber, *Proc. Acad. Nat. Sci. Phila.*, 84, p. 245, 1932—Eden and Santa Rosita, Nicaragua; Stone, *l.c.*, p. 338, 1932—Lancetilla, Honduras.

*Range*.—Southeastern Mexico, in states of Tamaulipas (Altamira), Vera Cruz, and Oaxaca, and southward through Guatemala, British Honduras, and Honduras to northern Nicaragua.<sup>1</sup>

18: Mexico (Vera Cruz, 2; Yucatan, 1); Guatemala (Lake Atitlan, 3; Los Amates, Izabal, 4; Mazatenango, 2; Patulul, Solola, 4; unspecified, 2).

**\**Thraupis palmarum palmarum* (Wied). PALM TANAGER.**

*Tanagra palmarum* Wied, *Reise Bras.*, 2, p. 76, 1821—Canavieiras, Bahia, Brazil (type now in the American Museum of Natural History, New York; cf. Allen, *Bull. Amer. Mus. N. H.*, 2, p. 219, 1889); idem, *Beitr. Naturg. Bras.*, 3, (1), p. 489, 1830—eastern Brazil (Serra de Inuá and northwards); Selater, *Proc. Zool. Soc. Lond.*, 24, p. 234, 1856—part, Brazil (Pará, Bahia, Rio) and Bolivia (ex d'Orbigny); idem, *Cat. Coll. Amer. Bds.*, p. 76, 1862—Mexiana and Bolivia; Selater and Salvin, *Proc. Zool. Soc. Lond.*, 1867, p. 571—Mexiana Island; Pelzeln, *Orn. Bras.*, 3, p. 209, 1870—Rio de Janeiro, Sapitiba, Rio das Pedras (São Paulo), Rio Araguay (Goyáz), Cuyabá, Villa Maria, and Engenho do Gama (Matto Grosso); Reinhardt, *Vidensk. Medd. Naturhist. Foren.*, 1870, p. 430—Minas Geraes (Lagõa Santa, Rio das Velhas); Layard, *Ibis*, 1873, p. 379—Pará; Berlepsch, *Journ. Orn.*, 21, p. 242, 1873—Blumenau, Santa Catharina; Selater and Salvin, *Proc. Zool. Soc. Lond.*, 1879, p. 600—Bolivia (part, Santa Cruz and Guarayos); Forbes, *Ibis*, 1881, p. 333—Recife, Pernambuco; Selater, *Cat. Bds. Brit. Mus.*, 11, p. 159, 1886—part, subsp. *typica*, eastern Brazil (Pernambuco, Bahia); Allen, *Bull. Amer. Mus. N. H.*, 3, p. 355, 1891—Chapada, Matto Grosso; Boucard and Berlepsch, *The Humming Bird*, 2, p. 43, 1892—Porto Real, Rio; Ihering, *Rev. Mus. Paul.*, 3, p. 150, 1899—São Sebastião, São Paulo; idem, *l.c.*, 4, p. 153, 1900—Cantagallo, Rio de Janeiro; Goeldi, *Ibis*, 1903, pp. 478, 479, 498—Rio Capim, Pará; Hagmann, *Zool. Jahrb. (Syst.)*, 26, p. 27, 1907—Mexiana; Ihering, *Cat. Faun. Braz.*, 1, p. 357, 1907—part, São Paulo (São Sebastião, Itapura), Espírito Santo, and Bahia (range, excl. Rio Negro); Sneath, *Journ. Orn.*, 55, p. 294, 1907—Pará and Santo Antonio do Prata, Brazil; idem, *l.c.*, 56, p. 523, 1908—Arumatheua, Rio Tocantins;

<sup>1</sup> There is obviously no local variation in this species.

*Additional material examined*.—Mexico: Jalapa, 3; unspecified, 3.—Guatemala: Coban, Vera Paz, 5.—Honduras: San Pedro, 2; Chamelicon, 1; Volcan de Puca, 1.

Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—Bahia (Alagoinhas; Fazenda Tabõa and above Barroçã, Rio Preto) and Piauhý (Parnaguá and Ilha São Martin); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1053, 1912—Brazil (range); Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Belmonte to Ilhéos, Bahia.

*Tanagra olivascens* Lichtenstein, Verz. Doubl. Berliner Mus., p. 32, 1823—Brazil (type in Berlin Museum); Swainson, Orn. Draw., Part 3, pl. 38, 1836—Brazil; d'Orbigny, Voy. Amér. Mérid., Ois., p. 274, 1839—Bolivia (Santa Cruz, Guarayos, Yuracares); Burmeister, Syst. Uebers. Th. Bras., 3, p. 175, 1856—Lagõa Santa, Minas Geraes.

*Aglaia olivascens* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 33, 1837—Santa Cruz, Bolivia.

*Thraupis olivascens* Cabanis, Mus. Hein., 1, p. 28, 1851—part, Brazil.

*Thraupis palmarum* Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio; Bertoni, El Hornero, 1, p. 258, 1919—Puerto Bertoni, Paraguay.

*Tanagra palmarum* subsp. Hellmayr, Nov. Zool., 12, p. 273, 1905—Igarapé-Assú, Pará; idem, Abhandl. Bayr. Akad. Wiss., Math-phys. Kl., 26, No. 2, p. 119, 1912—Mexiana.

*Tanagra palmarum palmarum* Hellmayr, Nov. Zool., 15, p. 29, 1908—Fazenda Esperança, Goyáz.

*Thraupis palmarum palmarum* Hellmayr, Abhandl. Bayr. Akad. Wiss., Math.-Phys. Kl., 26, No. 2, pp. 10, 87, 1912—Peixe-Boi, Pará (crit., Pará localities); Beebe, Zoologica (N.Y.), 2, p. 100, 1916—Utinga, Pará; Hellmayr, Nov. Zool., 30, p. 240, 1923—Santa Cruz and Guarayos, Bolivia (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 174, 1928—Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 281, 1929—Maranhão (Anil, São Bento, Barra do Corda, Codó) and Ceará (Serra de Baturité); Naumburg, Bull. Amer. Mus. N. H., 60, p. 373, 1930—Urucúm, Matto Grosso; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 268, 1930—Bolivia (Santa Cruz and Buenavista; crit.).

*Tanagra palmarum melanoptera* (not of Sclater) Snethlage, Bol. Mus. Goeldi, 8, p. 448, 1914—part, Pará, Capanema, Santo Antonio do Prata, Rio Tocantins (Arumatheua), and Maranhão; Ménégau, Rev. Franç. d'Orn., 5, p. 87, 1917—Caceres, Matto Grosso; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 60, 1926—Maranhão (Anil, Tury-assú).

*Range*.—Eastern and southern Brazil, from eastern Pará (east of Tocantins) south to Santa Catharina and west to southern Matto Grosso, and adjacent eastern Bolivia and Paraguay (Puerto Bertoni).<sup>1</sup>

<sup>1</sup> Birds from Maranhão and the Pará district, by average smaller size and (often) less conspicuous greenish edges to the remiges, form the transition to the Amazonian *T. p. melanoptera*, and the same may be said of certain, though not all, individuals from western Matto Grosso and the eastern plains of Bolivia.

*Additional material examined*.—Brazil: Igarapé-Assú, Pará, 3; Peixe-Boi, Pará, 3; Maguary, Pará, 2; Maranhão, 4; Parnaguá, Piauhý, 1; Ilha São Martin, Rio Parnahyba, Piauhý, 1; Bahia, 6; Alagoinhas, Bahia, 1; Rio Preto, Bahia, 2; Rio Jordão, Minas Geraes, 1; Rio de Janeiro, 3; São Sebastião, São Paulo, 2; Rio das Pedras, São Paulo, 1; Cuyabá, Matto Grosso, 1; Villa Maria, Matto Grosso, 1; Engenho do Gama, Matto Grosso, 2; Joinville, Santa Catharina, 2.—Bolivia: Santa Cruz, 2; Buenavista, Santa Cruz, 2; Guarayos, 1.



30: Brazil (Pará, 2; Anil, near São Luiz, Maranhão, 2; São Bento, Maranhão, 3; Barra do Corda, Maranhão, 1; Codó, Cocos, Maranhão, 1; Serra de Baturité, Ceará, 2; São Marcello, Bahia, 1; Santo Amaro, Bahia, 1; Veadeiros, Goyás, 5; Therezopolis, Rio de Janeiro, 1; Joinville, Santa Catharina, 7; Chapada, Matto Grosso, 4).

**\**Thraupis palmarum melanoptera* (Sclater). AMAZONIAN PALM Tanager.**

*Tanagra melanoptera* (Hartlaub MS.) Sclater, Proc. Zool. Soc. Lond., 24, "1856," p. 235, pub. Jan., 1857—East Peru and "Bogotá" (type, from eastern Peru, in Bremen Museum); idem, l.c., 26, pp. 74, 453, 1858—Rio Napo and Gualaquiza, Ecuador; idem, Cat. Coll. Amer. Bds., p. 76, 1862—part, spec. a, b, d, e, "Bogotá," Rio Napo, and Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—upper Ucayali, Peru; idem, l.c., 1867, p. 749—Xeberos, Peru; idem, l.c., 1868, p. 627—San Esteban, Venezuela; Pelzeln, Orn. Bras., 3, p. 209, 1870—part, Forte do Rio Branco and Manáos, Brazil;<sup>1</sup> Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 513—Monterico, Peru; Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Coroico, Bolivia; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 182, 1904—French Guiana (St. George d'Oyapock, Ouanary, and Mahury); Lowe, Ibis, 1907, p. 568—Margarita Island.

*Tanagra olivascens* (not of Lichtenstein) Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 204, 1846—Peru; Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 670, "1848" [= 1849]—British Guiana; Léotaud, Ois. Trinidad, p. 295, 1866—Trinidad.

*Thraupis olivascens* Cabanis, Mus. Hein., 1, p. 28, 1851—part, Surinam.

*Tanagra ornata* (not of Sparrman) Bonaparte, Rev. Mag. Zool., (2), 3, p. 170, 1851—part, Cayenne (descr. of female and young male); idem, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Berlepsch, Nov. Zool., 15, p. 115, 1908—Cayenne (ex Bonaparte).

*Tanagra palmarum* (not of Wied) Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 234, 1856—part, British Guiana, Cayenne, and Trinidad; Sclater and Salvin, l.c., 1873, p. 185—Cosnipata, Peru; idem, l.c., 1873, p. 262—upper and lower Ucayali, Xeberos, and Chamicuro, Peru; idem, l.c., 1879, p. 600—part, Cangalli, Yungas, Bolivia; Taczanowski, l.c., 1882, p. 13—Yurimaguas, Peru; Ridgway, Proc. U. S. Nat. Mus., 7, p. 173, 1884—Trinidad; Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Mapiri, Bolivia; Salvin, Ibis, 1885, p. 210—Bartica Grove and Roraima, British Guiana; Sclater, Cat. Bds. Brit. Mus., 11, p. 159, 1886—part, subsp. *melanoptera* (spec. l-q, s-w, "Bogotá," Ecuador [Rio Napo, Sarayacu], Peru [Iquitos, Sarayacu], and Bolivia [Cangalli]) and "intermediate forms" (spec. a-f, Bartica Grove, Roraima, and Maroni River); Goodfellow, Ibis, 1901, p. 466—part, Archidona, Ecuador; Ihering,

<sup>1</sup> The specimen from Rio Muriá (near Pará), which is no longer in the Vienna Museum, was probably one of those intermediates with little greenish edges to the wings which are not infrequently met with in the Pará region, whose inhabitants should be referred to typical *palmarum*.

Cat. Faun. Braz., 1, p. 357, 1907—part, Santarém; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 130, 1922—Trinidad (nest and egg).

*Tanagra palmarum melanoptera* Taczanowski, Orn. Pér., 2, p. 486, 1884—Peru (Xeberos, Chamicuros, Ucayali, Monterico, Cosnipata, Yurimaguas, Lamas); Riker and Chapman, Auk, 7, p. 267, 1890—Santarém, Brazil (crit.); Chapman, Bull. Amer. Mus. N. H., 6, p. 30, 1894—Princetown, Trinidad; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 343—La Merced, Chanchamayo, Peru; Robinson, Proc. U. S. Nat. Mus., 18, p. 677, 1896—Margarita Island; Berlepsch and Hartert, Nov. Zool., 9, p. 20, 1902—Orinoco River (Altagracia, Caicara, Ciudad Bolívar) and La Prición, Caura, Venezuela; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 58, 1902—part, Trinidad, Venezuela, British Guiana, and Amazonia; Clark, Auk, 19, p. 266, 1902—Margarita Island; idem, Auk, 20, p. 399, 1903—part, Venezuela, Margarita Island, Trinidad, British Guiana, and lower Amazon; Berlepsch and Stolzmann, Ornith., 13, p. 110, 1906—Rio Cadena, Marcapata, Peru; Hellmayr, Nov. Zool., 13, p. 15, 1906—Trinidad (Caparo, Laventille, Chaguaramas, Pointe Gourde, Valencia, Seelet); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 358, 1908—Aripo and Carenage, Trinidad; Sneath, Journ. Orn., 56, p. 10, 1908—Cachoeira, Rio Purús, Brazil; Berlepsch, Nov. Zool., 15, p. 115, 1908—Cayenne and Approuague, French Guiana; Lowe, Ibis, 1909, p. 323—Cariaco, Venezuela; Beebe, Zoologica (N.Y.), 1, p. 103, 1909—Guanoco, Orinoco Delta; Hellmayr, Nov. Zool., 17, p. 274, 1910—Calama, Rio Madeira; Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Nuevo Loreto, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1053, 1136, 1912—part, eastern Ecuador, Peru, Bolivia, Brazil, Trinidad, Venezuela, and Guiana; Sneath, Bol. Mus. Goeldi, 8, p. 448, 1914—part, Rio Purús (Cachoeira), Monte Alegre, Rio Jary (Santo Antonio da Cachoeira), Rio Jamundá (Faro), and Manáos.

*Tanagra palmarum melanoptera* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, pp. 249, 254, 1909—Margarita Island.

*Thraupis palmarum melanoptera* Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 210, 1913—Cariacito, Venezuela; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 177, 1916—Orinoco River and Maripa, Caura, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 608, 1917—part, eastern slope of east Colombian Andes (Quetame, Buena Vista, Villavicencio, Barrigon, Florencia, La Morelia); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 88, 1918—vicinity of Paramaribo and Lelydorp, Dutch Guiana; Chapman, Bull. U. S. Nat. Mus., 117, p. 120, 1921—San Miguel Bridge, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 673, 1926—eastern Ecuador (Zamora, Rio Suno); Naumburg, l.c., 60, p. 374, 1930—northern Matto Grosso (Tapirapoan, Carapanha, Rio Roosevelt) and Rio Madeira (Calama); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 446, 1930—Vista Alegre, Peru.

*Thraupis melanoptera* Chubb, Bds. Brit. Guiana, 2, p. 516, 1921—British Guiana.

*Thraupis palmarum duvida* Cherrie, Bull. Amer. Mus. N. H., 35, p. 190, May, 1916—Carapanha, Rio Roosevelt, northern Matto Grosso (type in the American Museum of Natural History, New York, examined).

*Range*.—Tropical zone of Trinidad, Venezuela, the Guianas, and Amazonia (north of the Amazon, but from the Tapajóz westward also south of that river) west to the eastern base of the east Colombian Andes and south through eastern Ecuador and Peru to northern Bolivia (Yungas of La Paz) and through western Brazil to northern Matto Grosso (Rio Roosevelt).<sup>1</sup>

41: Trinidad (unspecified, 1); Venezuela (Margarita Island, 17; Catatumbo, Zulia, 1; Rio Chamá, 1); British Guiana (Georgetown, 1; unspecified, 2); Dutch Guiana (Paramaribo, 1); Brazil (Boa Vista, Rio Branco, 4; Serra da Lua, Rio Branco, 3; Porto Velho, Rio Madeira, 2); Colombia ("Bogotá," 2; Florencia, Caquetá, 1); Peru (Yurimaguas, 2; Rioja, 1; Vista Alegre, 1); Bolivia (Rio Espirito Santo, 1).

**\**Thraupis palmarum violilavata* (Berlepsch and Taczanowski).<sup>2</sup>**  
VIOLACEOUS PALM TANAGER.

*Tanagra palmarum violilavata* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 546—Chimbo, Ecuador (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 185,

<sup>1</sup> The characters of this form are most strongly pronounced in Upper Amazonia. Birds from the Orinoco region, Trinidad, the Guianas, and Brazil north of the Amazon appear to me inseparable, though they vary somewhat in the direction of typical *palmarum*. This intermediacy is still more developed in eastern Amazonia, notably between the Rio Madeira and the Tapajóz, a series from Santarém forming complete intergradation between *melanoptera* and *palmarum*, so much indeed that it is utterly impossible to draw a fast line. In native "Bogotá" collections typical examples of both *melanoptera* and *atrypennis* are found. The first-named doubtless came from the Amazonian slope of the east Colombian Andes, while the latter almost certainly originated in the Magdalena Valley. *T. p. duvida* is not separable. The type is just molting into the first annual plumage. The alleged racial characters are clearly of individual nature. While the pale patch at the base of the primaries is less extended than in the majority of the other specimens examined, the type is exactly matched in this respect by various individuals, notably a female from Yacua, Paria Peninsula, Venezuela. The grayish violet color of the median and greater upper wing coverts recurs in an adult female from Tulumayo, Peru (A.M.N.H., No. 171,210) and in another from Nóvita, Chocó, Colombia (Munich Museum, No. 09.5844).

*Additional material examined*.—Peru: Caradoc, Marcapata, 2; Chamicuroso, 2; Yurimaguas, 1; Xeberos, 7; upper Ucayali, 1; Nuevo Loreto, 1; Iquitos, 2.—Ecuador: Archidona, 2.—Colombia: "Bogotá," 7.—Brazil: Cala ma, Rio Madeira, 2; Carapanha, Rio Roosevelt, 1; Santarém, 7; Forte do Rio Branco, 1.—Venezuela: Orinoco region, 12; Caura, 4; Yacua, Paria Peninsula, 2.—Trinidad, 24.—British Guiana, 6.—Surinam, 3.—French Guiana: Cayenne, 8; Approuague, 2.

<sup>2</sup> *Thraupis palmarum violilavata* (Berlepsch and Taczanowski): Nearest to *T. p. melanoptera*, but much more strongly tinged with bluish both above and below; forehead and crown with very little, if any olive greenish tone; upper wing coverts duller, more grayish (less yellowish) olive, the smaller ones frequently glossed with bluish; the alar speculum likewise duller and more grayish; the outer webs of the primaries uniform black or with mere traces of grayish borders at the base.

*Additional material examined*.—Western Ecuador: San Javier, Prov. Esmeraldas, 5; Paramba, Prov. Imbabura, 5; Santo Domingo, 3; Chimbo, 1; unspecified, 3.



1927); Hartert, Nov. Zool., 5, p. 482, 1898—Cachaví, Prov. Esmeraldas; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 101, 1911—Santo Domingo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1053, 1912—western Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—Niebli and road to Gualea.

*Thraupis palmarum violilavata* Chapman, Bull. Amer. Mus. N. H., 55, p. 673, 1926—Esmeraldas, Rio de Oro, Bucay, Chone, Santa Rosa, Las Piñas, and Cebollal, Ecuador.

*Tanagra melanoptera* (not of Sclater, 1857) Sclater, Proc. Zool. Soc. Lond., 28, p. 292, 1860—Esmeraldas; idem, Cat. Coll. Amer. Bds., p. 76, 1862—part, spec. c, Esmeraldas.

*Tanagra palmarum* subsp. *melanoptera* Sclater, Cat. Bds. Brit. Mus., 11, p. 160, 1886—part, spec. r, Esmeraldas.

*Tanagra palmarum* (not of Wied) Goodfellow, Ibis, 1901, p. 466—part, Santo Domingo, western Ecuador.

*Range*.—Tropical zone of western Ecuador, from Esmeraldas south to the Peruvian boundary (Cebollal, west of Alamor).

2: Ecuador (Paramba, Prov. Imbabura, 1; San José, near Huigra, 1).

\**Thraupis palmarum atripennis* Todd.<sup>1</sup> BLACK-WINGED PALM Tanager.

*Thraupis palmarum atripennis* Todd, Proc. Biol. Soc. Wash., 35, p. 92, 1922—Guápiles, Costa Rica (type in the Carnegie Museum, Pittsburgh); Todd and Carriker, Ann. Carnegie Mus., 14, p. 491, 1922—Cacagualito, Don Diego, Fundación, Tierra Nueva, Mamatoco, Dibulla, Santa Marta, and Tucurínca, Colombia (crit.); Griscom, Bull. Mus. Comp. Zool., 69, p. 189, 1929—El Real and Cana, Darien; Peters, l.c., 71, p. 341, 1931—Almirante and Chiriquicito, Panama; Darlington, l.c., 71, p. 418, 1931—Rio Frio, Magdalena, Colombia.

*Tanagra palmarum* (not of Wied) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Lion Hill, Panama; Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—Costa Rica (Naránjo, San José); Sclater and Salvin, l.c., 1879, p. 500—Remedios, Colombia (egg descr.); Salvin and Godman, Ibis, 1880, p. 120—Minca, Colombia; idem, Biol. Centr.-Amer., Aves, 1, p. 279, 1883—

<sup>1</sup>*Thraupis palmarum atripennis* Todd: Agreeing with *T. p. violilavata* in nearly wholly black outer webs of remiges and bluish rather than purplish gloss of the body plumage, but forehead and crown conspicuously light yellowish olive, contrasting with color of hind neck; larger upper wing coverts and alar speculum more olive, less grayish; similar to *T. p. melanoptera*, but wings blacker without (or with mere traces of) grayish edges; crown duller, less yellowish; gloss of body plumage bluish rather than purplish.

Although intermediate in characters, this form cannot well be united to either of its allies. Birds from western Colombia and Santa Marta agree very well with Costa Rican examples.

*Additional material examined*.—Costa Rica, 5.—Panama, 3.—Colombia: Santa Marta, 5; Remedios, 1; Bucaramanga, 2; "Bogotá," 5; Loma Hermosa, 1; Nóvita, 5; Tadó, 4.



part, Costa Rica, Panama, and Colombia; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Naránjo de Cartago, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 488, 1893—Greytown, Nicaragua.

*Tanagra melanoptera* (not of Sclater, 1857) Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Isthmus of Panama; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—Turrialba, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Santiago de Veragua; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 99, 1868—Costa Rica (Santa Rosa, Angostura, Turrialba); Frantzius, Journ. Orn., 17, p. 298, 1869—Costa Rica (Santa Rosa, Turrialba, Angostura, Tucurriquí); Wyatt, Ibis, 1871, p. 326—Bucaramanga, Aguachica, and Ocaña, Santander, Colombia; Pigué, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Titiribi, Rio Cauca, Colombia.

*Tanagra palmarum melanoptera* Berlepsch, Journ. Orn., 32, p. 291, 1884—Bucaramanga, Colombia; Bangs, Proc. Biol. Soc. Wash., 12, p. 141, 1898—Santa Marta, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 169, 1900—Bonda and Cacagualito, Colombia; Bangs, Proc. New Engl. Zool. Cl., 2, p. 30, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 58, 1902—part, Nicaragua, Costa Rica, and south to Colombia; Clark, Auk, 20, p. 399, 1903—part, Panama, Costa Rica, and Santa Marta; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1112—Nóvita, Tadó, and Loma Hermosa, western Colombia (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1053, 1912—part, Costa Rica, Panama, and Colombia; Rendahl, Ark. Zool., 12, No. 8, p. 34, 1919—Siquírres, Costa Rica.

*Thraupis palmarum melanoptera* Carriker, Ann. Carnegie Mus., 6, p. 856, 1910—Costa Rica (habits); Chapman, Bull. Amer. Mus. N. H., 36, p. 608, 1917—part, Dabeiba, Nóvita, Noanamá, San José, Los Cisneros, Puerto Valdivia, La Frijolera, Andalucía, Subia, Chicoral, Puerto Berrio, and Turbaco, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 278, 1918—Gatún, Toro Point, and Fort Lorenzo, Panama; Griscom, Bull. Mus. Comp. Zool., 72, p. 370, 1932—Permé and Obaldia, eastern Panama.

*Tanagra palmarum* subsp. *melanoptera* Sclater, Cat. Bds. Brit. Mus., 11, p. 160, 1886—part, spec. a-1, Costa Rica, Panama, Miñca, Santa Marta, Remedios, and "Bogotá."

*Range.*—Tropical zone of eastern Nicaragua (Greytown), Costa Rica, Panama, and Colombia, east to Santa Marta and south to the Magdalena Valley and the Rio Dagua.

21: Costa Rica (Guayábo, 8; La Iberia, 1; Limón, 6; Matina, 1; Peralta, 2); Panama (Colón, 1); Colombia (Puerto Zapote, 1; near San José de Cucuta, Santander, 1).

\**Thraupis cyanocephala cyanocephala* (Lafresnaye and d'Orbigny). BLUE-CAPPED TANAGER.

*Aglaiia cyanocephala* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Yungas, Bolivia (type from Enquisivi, Prov. Sicasica, in Paris Museum examined).

*Tanagra maximiliani* d'Orbigny, Voy. Amér. Mérid., Ois., p. 276, pl. 23, fig. 2, 1839—Enquisivi, Bolivia (new name for *Aglaiia cyanocephala* Lafr. and d'Orb.).<sup>1</sup>

*Tanagra cyanocephala* Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 205, 1846—"fruit gardens around Lima," errore; Bonaparte, Consp. Gen. Av., 1, (1), p. 238, 1850—Bolivia and Peru (diag.); Selater, Proc. Zool. Soc. Lond., 24, p. 236, 1856—Bolivia (Sicasica) and Peru ("Lima," ex Tschudi); idem, l.c., 27, p. 139, 1859—Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 77, 1862—Pallatanga and Peru; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 513—Peru (no locality specified); idem, l.c., 1879, p. 227—Tambillo, Peru; Selater and Salvin, l.c., 1879, p. 600—Bolivia (Enquisivi, Ramosani, Tilotilo); Taczanowski, l.c., 1882, p. 13—Chachapoyas, Peru; Berlepsch and Taczanowski, l.c., 1884, p. 290—Cayandede and Surupata, Ecuador (crit.); Taczanowski, Orn. Pér., 2, p. 490, 1884—Peru ("Lima," Ninabamba, Auquimarca, Tambillo, Cutervo, Chachapoyas); Selater, Cat. Bds. Brit. Mus., 11, p. 162, 1886—Bolivia (Ramosani, Tilotilo), Peru (Pumamarca), and Ecuador (Pallatanga, "San Lucas," "Jima"); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 344—Garita del Sol, Vitoc, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Tambo de Yerba-buena (road from Naranjal to Cuenca) and Nanegal, Ecuador; Goodfellow, Ibis, 1901, p. 467—Gualea, Ecuador, and Popayán, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1055, 1912—western Ecuador to Bolivia.

*Tanagra cyanocephala cyanocephala* Hellmayr, Nov. Zool., 13, p. 15, 1906—Bolivia, Peru, and western Ecuador (crit.).

*Sporothraupis cyanocephala cyanocephala* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 102, 1911—Lanlin (Nanegal), Ecuador; Bangs and Noble, Auk, 35, p. 460, 1918—Tabaconas, northern Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 120, 1921—San Miguel Bridge, Torontoy, and Occobamba Valley, Urubamba, Peru.

*Sporothraupis cyanocephala* Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Cumpang (east of Tayabamba), Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—below Nono, Ecuador.

*Sporathraupis cyanocephala cyanocephala* Hellmayr, Nov. Zool., 30, p. 237, 1923—Bolivia (note on type); Chapman, Bull. Amer. Mus. N. H., 55, p. 674, 1926—western Ecuador (Guachanamá, San Bartolo, Loja).

*Thraupis cyanocephala cyanocephala* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 447, 1930—Chinchao, Huánuco, Peru; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—El Portete de Tarquí, Cuenca, Ecuador.

*Range.*—Subtropical zone of Bolivia (Yungas of La Paz), eastern Peru, and western Ecuador.<sup>2</sup>

1: Peru (Chinchao, 1).

<sup>1</sup> This renaming is unwarranted, since *Aglaiia cyanocephala* Lafr. and d'Orb. is not affected by the earlier *Tanagra cyanocephala* P. L. S. Müller, 1776, which pertains to an entirely different genus (*Calospiza*).

<sup>2</sup> The east Ecuadorian localities, San Lucas and Jima, on some of Buckley's specimens in the British Museum are unquestionably erroneous. Comparison of

**\**Thraupis cyanocephala auricrissa* (Sclater).<sup>1</sup> GOLDEN-VENTED TANAGER.**

*Dubusia auricrissa* Slater, Proc. Zool. Soc. Lond., 23, "1855," p. 227, pub. Feb. 5, 1856—"Bogotá," Colombia (type in coll. of P. L. Slater, now in British Museum).

*Tanagra auricrissa* Slater, Proc. Zool. Soc. Lond., 24, p. 236, 1856—"Bogotá" (diag.); idem, Cat. Coll. Amer. Bds., p. 77, 1862—"Bogotá" and Ecuador (errore); Slater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida, Venezuela; Wyatt, Ibis, 1871, p. 326—Alto and forests between Bucaramanga and Ocaña, Santander, Colombia.

*Thraupis cyanocephala* (not *Aglaia cyanocephala* Lafresnaye and d'Orbigny) Cabanis, Mus. Hein., 1, p. 29, 1851—Colombia.

*Dubusia cyanocephala*(?) Slater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá."

*Tanagra cyanocephala* Slater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 501—Retiro and Santa Elena, Antioquia, Colombia (egg descr.).

*Sporathraupis cyanocephala* Pigué, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Medellin, Colombia.

*Tanagra cyanocephala* subsp. b. *auricrissa* Slater, Cat. Bds. Brit. Mus., 11, p. 163, 1886—Colombia ("Bogotá," Retiro, Santa Elena, Canuto).

*Tanagra cyanocephala auricrissa* Hellmayr, Nov. Zool., 13, p. 15 (in text), 1906—Colombia and Mérida, Venezuela (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1055, 1912—Colombia and Andes of Mérida, Venezuela.

*Sporathraupis cyanocephala auricrissa* Chapman, Bull. Amer. Mus. N. H., 37, p. 608, 1917—Colombia (Nóvita Trail, Popayán, Cerro Munchique, La Florida, Cocal, La Sierra, Salento, Santa Elena, Barro Blanco, El Eden, Aguadita, El Roble, Subia, Palo Hueco).

*Range*.—Subtropical zone of Colombia (except Santa Marta region) and adjoining section of western Venezuela (Cordillera of Mérida).

13: Colombia (Barro Blanco, Antioquia, 1; Santa Elena, Antioquia, 1; Cachiri, Santander, 1; Páramo de Tamá, 4; Bogotá, 2); Venezuela (Conejos, 1; Escorial, 1; Tabay, Mérida, 2).

***Thraupis cyanocephala margaritae* (Chapman).<sup>2</sup> MARGARITA'S TANAGER.**

seven specimens from Bolivia, fifteen from different parts of Peru, and eleven from western Ecuador fails to reveal any racial variation.

<sup>1</sup> *Thraupis cyanocephala auricrissa* (Sclater) differs from the nominate form by more yellowish, citrine rather than warbler green, dorsal surface; conspicuously darker gray under parts, particularly on the belly; deeper, lemon chrome instead of lemon yellow tibial feathers and under tail coverts.

Seven birds from the Mérida region, Venezuela, agree with a series from Colombia. Thirty-two specimens examined.

<sup>2</sup> *Thraupis cyanocephala margaritae* (Chapman): Nearest to *T. c. auricrissa*, but smaller; throat and foreneck tinged with dull blue, more or less concealing

*Sporathraupis cyanocephala margaritae* Chapman, Bull. Amer. Mus. N. H., 31, p. 165, July, 1912—Valparaiso, Santa Marta region, Colombia (type in the American Museum of Natural History, New York); Todd and Carker, Ann. Carnegie Mus., 14, p. 490, 1922—El Libano, Las Vegas, San Miguel, and Heights of Chirua (crit., habits).

*Tanagra cyanocephala auricrissa* (not *Dubusia auricrissa* Sclater) Allen, Bull. Amer. Mus. N. H., 13, p. 490, 1900—Valparaiso and El Libano.

*Range*.—Subtropical zone of the Santa Marta region in northern Colombia.

### **Thraupis cyanocephala hypophaea** (Todd).<sup>1</sup> PÁRAMO DE ROSAS Tanager.

*Sporathraupis cyanocephala hypophaea* Todd, Proc. Biol. Soc. Wash., 30, p. 128, July, 1917—Páramo de Rosas, State of Lara, western Venezuela (type in Carnegie Museum, Pittsburgh).

*Range*.—Subtropical zone of northwestern Venezuela (Páramo de Rosas, State of Lara).

### \***Thraupis cyanocephala olivi-cyanea** (Lafresnaye).<sup>2</sup> BLUE-BELLIED Tanager.

*Tanagra olivi-cyanea* Lafresnaye, Rev. Zool., 6, p. 69, 1843—"Colombia," errore; we suggest vicinity of Caracas, Venezuela (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 405, 1930); Bonaparte, Consp. Gen. Av., 1, (1), p. 238, 1850—"Colombia" (ex Lafresnaye); Sclater, Proc. Zool. Soc. Lond., 24, p. 237, 1856—Galipán, Venezuela, and "New Grenada" (descr.); idem, Cat. Coll. Amer. Bds., p. 77, 1862—"Bogotá";

the dark gray color of the feather bases; dorsal surface more brownish, between orange citrine and medal bronze. Wing, 84-86; tail, 70; bill, 14.

By the extension of the blue color over the throat and foreneck this form marks a step in the direction of *T. c. olivi-cyanea*, the gap being closed by *T. c. hypophaea*. The two specimens examined have the yellow of the crissum and tibial feathers fully as dark as *T. c. auricrissa*.

*Material examined*.—Colombia: El Libano, 1; Valparaiso, 1.

<sup>1</sup> *Thraupis cyanocephala hypophaea* (Todd): Similar to *T. c. auricrissa*, but under parts strongly suffused with blue, especially anteriorly, approaching thus *T. c. olivi-cyanea*.

This form, which, some years ago, we examined in the Carnegie Museum, is closely similar to *T. c. olivi-cyanea*, but less "solidly" blue underneath, the dark gray color of the basal portion of the feathers showing through and causing a variegated appearance. From *T. c. margaritae*, of the Santa Marta region, it may be separated by the more greenish (less brownish) upper parts and greater extent of the blue suffusion underneath.

<sup>2</sup> *Thraupis cyanocephala olivi-cyanea* (Lafresnaye), in adult plumage, is easily distinguished from all other races by the uniform bright blue (sailor blue) under parts. Young birds, by mainly dark gray ventral surface, betray, however, their close affinity to *T. c. auricrissa*.

*Additional material examined*.—Venezuela: Galipán, Cerro del Avila, 43; Silla de Caracas, 2; "Caracas," 1.



Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caracas; Sclater, Cat. Bds. Brit. Mus., 11, p. 163, 1886—Venezuela (Caracas) and "Colombia (Bogotá)"; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1054, 1912—Venezuela (Caracas) and (?) Colombia ("Bogotá").

*Dubusia olivicyanea* Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá."

*Sporathraupis cyanocephala olivi-cyanea* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 187, 1924—Galipán (Cerro del Avila) and Silla de Caracas, Venezuela (crit., plumages).

*Range*.—Subtropical zone of northern Venezuela, in Dept. Federal (Silla de Caracas; Galipán, Cerro del Avila) and State of Aragua (Maracay).<sup>1</sup>

1: Venezuela (Maracay, Aragua, 1).

### *Thraupis cyanocephala subcinerea* (Sclater).<sup>2</sup> ASH-BELLIED TANAGER.

*Tanagra subcinerea* Sclater, Proc. Zool. Soc. Lond., 1861, p. 129—Venezuela and "Trinidad"<sup>3</sup> (type, from "Venezuela," in coll. of P. L. Sclater, now in British Museum, examined); idem, Cat. Coll. Amer. Bds., p. 77, 1862—Venezuela (type) and "Trinidad" (errore).

*Tanagra cyanocephala* subsp. *subcinerea* Sclater, Cat. Bds. Brit. Mus., 11, p. 163, 1886—Venezuela and "Trinidad" (errore).

*Tanagra cyanocephala subcinerea* Phelps, Auk, 14, p. 364, 1897—Cumanacoa [Sucre], Venezuela; Hellmayr, Nov. Zool., 13, p. 15, 1906—part, "Cumaná," Venezuela; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1055, 1912—part, northeastern Venezuela (Cumaná).

*Sporathraupis cyanocephala subcinerea* Chapman, Amer. Mus. Nov., 191, p. 12, 1925—Carapas and Turumiquire, Sucre, Venezuela.

*Range*.—Subtropical zone of northeastern Venezuela, in State of Sucre (Los Palmales, Quebrada Secca, Los dos Rios, Cumanacoa, Carapas, Turumiquire).

<sup>1</sup> The record of this species from "Bogotá" must be a mistake. If blue-bellied specimens really occur in "Bogotá" collections, they are more likely to be individual mutants of *T. c. auricrissa*.

<sup>2</sup> *Thraupis cyanocephala subcinerea* (Sclater): Nearest to *T. c. auricrissa*, but under parts very much lighter, pale dingy gray, passing into buffy in a rather extensive zone along the middle of the breast and abdomen; chin and upper throat paler than the rest and more or less freckled with grayish white. Wing, 82–86, (female) 77–81; tail, 76–80, (female) 68–76; bill, 13–14.

This form, by the absence of blue underneath, reverts to the characters of the Andean races (*auricrissa* and *cyanocephala*), but is immediately recognizable by its much paler coloration.

*Material examined*.—Venezuela, Sucre: Los Palmales, 11; Quebrada Secca, 1; Los dos Rios, 2; unspecified, 1 (the type).

<sup>3</sup> "Trinidad" is based on a trade-skin of the peculiar preparation once ascribed to that island. It has since been ascertained, however, that the majority of these so-called "Trinidad" skins originally came from the opposite Venezuelan mainland.

**Thraupis cyanocephala büsingi** (Hellmayr and Seilern).<sup>1</sup> BÜS-  
ING'S TANAGER.

*Sporathraupis cyanocephala büsingi* Hellmayr and Seilern, Verh. Orn. Ges. Bay., 11, No. 3, p. 254, 1913—Aripo, Island of Trinidad (type in Munich Museum).

*Tanagra subcinerea* (not of Sclater) Léotaud, Ois. Trinidad, p. 296, 1866—Trinidad ("sur le sommet de nos montagnes").

*Tanagra cyanocephala subcinerea* Chapman, Bull. Amer. Mus. N. H., 6, p. 30, 1894—Trinidad (ex Léotaud); Hellmayr, Nov. Zool., 13, p. 15, 1906—part, Aripo, Trinidad; Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 188, 1906—Aripo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1055, 1912—part, Trinidad.

*Range*.—Island of Trinidad (northern range from 1,800 feet upwards).

\***Thraupis bonariensis bonariensis** (Gmelin). BLUE-AND-YEL-  
LOW TANAGER.

*Loxia bonariensis* Gmelin, Syst. Nat., 1, (2), p. 850, 1789—based on "Le Noir-Souci" Buffon, Hist. Nat. Ois., 4, p. 150; Buenos Aires.

*Tanagra striata* Gmelin, Syst. Nat., 1, (2), p. 899, 1789—based on "L'Onglet" Buffon, Hist. Nat. Ois., 4, p. 256, South America; d'Orbigny, Voy. Amér. Mérid., Ois., p. 273, 1839—part, descr. of "adult male," Montevideo, Buenos Aires, Corrientes, and eastern Bolivia (Palca, Cochabamba, Valle Grande, Chuquisaca); Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—part, "Paraguay" (descr. of male); idem, Rev. Mag. Zool., (2), 3, p. 171, 1851—part, "Paraguay" (descr. of male); Sclater, Proc. Zool. Soc. Lond., 24, p. 235, 1856—part, Rio Grande do Sul, Uruguay, Buenos Aires, Corrientes, and "Paraguay" (descr. of male); Burmeister, Syst. Uebers. Th. Bras., 3, p. 178, 1856 (range); idem, Journ. Orn., 8, p. 253, 1860—Mendoza, Paraná, and Banda Oriental; idem, Reise La Plata St., 2, p. 480, 1861—Buenos Aires to Mendoza, north to Paraná and Córdoba; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 139—Conchitas, Buenos Aires; Doering, Per. Zool. Arg., 1, p. 254, 1874—Barrancas, Rio Guayquiraro, Corrientes; Durnford, Ibis, 1877, p. 170—Punta Lara and thirty miles north of Buenos Aires; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 600—Cinti [=Camargo], Chuquisaca, Bolivia (not La Paz, ex d'Orbigny); Gibson, Ibis, 1880, p. 21—Cape San Antonio, Buenos Aires; White, Proc. Zool. Soc. Lond., 1882, p. 596—Fuerte de Andalgalá (Catamarca) and Punta Lara (Buenos Aires); Barrows, Bull. Nutt. Orn. Cl., 8, p. 91, 1883—Concepción del Uruguay, Entre Ríos.

<sup>1</sup> *Thraupis cyanocephala büsingi* (Hellmayr and Seilern): Very close to *T. c. subcinerea*, but below decidedly darker gray, with a faint bluish hue on breast and sides of throat, and very little buffish suffusion along the middle line; blackish maxillary streak much more prominent; chin and upper throat variegated with blackish freckles; bill shorter and more swollen. Wing, 82–86, (female) 77–82; tail, 72–77, (female) 68–73; bill, 14–15.

*Material examined*.—Trinidad: Aripo (alt. 1,800 to 2,000 feet), 33.

- Aglaia striata* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 32, 1837—Valle Grande, Cochabamba, Bolivia; Darwin, Zool. Beagle, 3, p. 97, 1841—Maldonado, Uruguay.
- Tanagra darwini* (not of Bonaparte) Darwin, Zool. Beagle, 3, pl. 34, 1839.
- Tanagra bonariensis* Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 119, 1885—Taquara and Arroio, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 164, 1886—Rio Grande do Sul, Uruguay (Maldonado), Corrientes, Punta Lara (Buenos Aires), Mendoza, and Bolivia (Cinti); Sclater and Hudson, Arg. Orn., 1, p. 39, 1888—Argentina; Withington, Ibis, 1888, p. 462—Lomas de Zamora, Buenos Aires; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 91, 1891—Córdoba; Holland, Ibis, 1891, pp. 16, 17—Est. Espartillar, Buenos Aires; Kerr, Ibis, 1892, p. 124—Fortín Page, Paraguay; Holland, Ibis, 1892, p. 196—Est. Espartillar; idem, Ibis, 1893, pp. 468, 469—Santa Elena, Entre Ríos (migration); Aplin, Ibis, 1894, p. 168—Uruguay (Monzón, Rio Negro); Koslowsky, Rev. Mus. La Plata, 6, pp. 278, 290, 1895—Chilecito (La Rioja) and Catamarca; Salvadori, Boll. Mus. Zool. Torino, 10, No. 208, p. 4, 1895—San Pablo, Tucumán; idem, l.c., 12, No. 292, p. 6, 1897—Campo Santo (Salta) and Caiza (Bolivian Chaco); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Mundo Novo, Rio Grande do Sul; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 175, 1902—Tucumán; Lönnberg, Ibis, 1903, pp. 457, 471—Bolivia (Tarija and Fortín Crevaux, Bolivian Chaco); Bruch, Rev. Mus. La Plata, 11, p. 257, 1904—Orán, Salta; Baer, Ornith., 12, p. 215, 1904—Tapia, Tucumán; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 358, 1907—Rio Grande do Sul, Brazil; Hartert and Venturi, Nov. Zool., 16, p. 171, 1909—Argentina; Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 376, 1910 (range in Argentina); Grant, Ibis, 1911, p. 93—Los Yngleses, Ajó, Buenos Aires; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1054, 1912—Rio Grande do Sul, Uruguay, Argentina, and southern Bolivia (Cinti; Valle Grande; San José, Rio Misque); Bertoni, Faun. Parag., p. 63, 1914—Puerto Bertoni, Paraguay; Hussey, Auk, 33, p. 397, 1916—La Plata; Gibson, Ibis, 1920, p. 94—Cape San Antonio, Buenos Aires (nest and eggs descr.).
- Thraupis bonariensis* Sanzín, El Hornero, 1, p. 151, 1918—Mendoza; Dabbene, l.c., 1, p. 243, 1919—Isla Martín García, Buenos Aires; Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Montevideo, Canelones, San José, Flores, Florida, Cerro Largo); Daguerre, l.c., 2, p. 270, 1922—Rosas, Buenos Aires; Hellmayr, Nov. Zool., 30, p. 237, 1923—Cochabamba, Bolivia (crit.); Serié and Smyth, El Hornero, 3, p. 52, 1923—Santa Elena, Entre Ríos; Giacomelli, l.c., 3, p. 68, 1923—La Rioja; Pereyra, l.c., 3, p. 171, 1923—San Isidro, Buenos Aires; Dinelli, l.c., 3, p. 254, 1924—Tucumán (nest and egg descr.); Marelli, Mem. Min. Obr. Públ. for 1922–23, p. 657, 1924—Prov. Buenos Aires; Wetmore, Bull. U. S. Nat. Mus., 133, p. 393, 1926—Argentina (Riacho Pilaga, Formosa; Lavalle, Buenos Aires; Victorica, Pampa; Potrerillos, Mendoza; Tapia, Tucumán) and Uruguay (La Paloma, near Rocha); Friedmann, Bull. Mus. Comp. Zool., 68, p. 227, 1927—Concepción, Tucumán; Budin, El Hornero, 4, p. 411, 1931—Maimará, Jujuy.

*Thraupis bonariensis bonariensis* Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 269, 1930—Bolivia (Villa Montes and Fortín Esteros, Tarija; Cuevo, Chuquisaca).

*Range*.—Extreme southern Brazil (Rio Grande do Sul); Uruguay; northern Argentina, south to Mendoza, Córdoba, and Buenos Aires (Cape San Antonio); Paraguay; southern Bolivia, north to Cochabamba.<sup>1</sup>

20: Bolivia (Parotani, 1); Uruguay (Rio Cebollati, Passo de Averias, Minas, 4; Dept. Rocha, near San Vicente de Castillos, 1; Dept. San José, on coast near Arazati, 4; Dept. Soriano, near Dolores, 5); Argentina (Concepción, Tucumán, 3; Conchitas, Buenos Aires, 1; El Carrizal, Sierra de Cordoba, 1).

**\**Thraupis bonariensis darwini* (Bonaparte).<sup>2</sup> DARWIN'S Tanager.**

*Tanager darwini*<sup>3</sup> Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 121, pub. June, 1838—"Chile" (type apparently lost);<sup>4</sup> Sclater, l.c., 26, pp. 453, 551, 1858—Cuenca and Riobamba, Ecuador (crit.); idem, l.c., 28, p. 86, 1860—Calacali, Ecuador; idem, Cat. Coll. Amer. Bds., p. 76, 1862—Lima and Cuenca; idem, Proc. Zool. Soc. Lond., 1866, p. 97—vicinity of Lima, Peru; idem, l.c., 1867, p. 341—Lima; Sclater and Salvin, l.c., 1867, p. 984—Arequipa, Peru; idem, l.c., 1868, p. 569—Arequipa; idem, l.c., 1869, p. 151—Tinta, Peru; Taczanowski, l.c., 1874, p. 513—Lima, Huanta, Maraynioc, and Pumamarca, Peru; Sclater and Salvin, l.c., 1876, p. 16—Paucartambo, Peru; idem, l.c., 1879, p. 600—Sorata and Tilotilo, Bolivia; Taczanowski, l.c., 1880, p. 195—Callacate, Peru; idem, l.c., 1882,

<sup>1</sup> Seven specimens from Rio Grande do Sul agree with others from Buenos Aires and Tucumán, and a series from Bolivia (Tarija and Cochabamba) is not different either.

Fifty-seven specimens examined.

<sup>2</sup> *Thraupis bonariensis darwini* (Bonaparte), in the male sex, differs from the nominate form by greenish (instead of black) mantle, and light cadmium (instead of bright orange) rump and chest, while the female is only distinguishable by lacking the bluish tinge on the head.

In agreement with Chapman and Zimmer, I am unable to separate the supposed eastern form (*laeta*), there being no constant difference either in size or color between birds from the Peruvian and Chilean coast and others (from Bolivia) and southeastern Peru. *T. b. darwini* replaces the typical form in the northern parts of Bolivia (Dept. La Paz) and farther north.

*Additional material examined*.—Ecuador: Quito, 2; Riobamba, 3; Cuenca, 1; unspecified, 4.—Peru: San Pablo, 1; Lima, 4; La Merced, 1; Maraynioc, 1; Lucre, Cuzco, 6; Idma, Urubamba, 2.—Bolivia, Dept. La Paz: La Paz, 3; Yungas, 1; Chililaya, 1; Chicani, 2.

<sup>3</sup> Frequently spelled "*darwini*."

<sup>4</sup> Although Bonaparte states that the type was brought to the British Museum "by the expedition under Capt. Fitzroy," that is, by the "Beagle," this specimen is not to be found in that collection. His description, however, applies to the male of the bird now designated by Bonaparte's name. Cf. also Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 447, 1930.



- p. 13—Tamiapampa, Peru; Berlepsch and Taczanowski, l.c., 1884, p. 290—Bugnac, Ecuador; Taczanowski, Orn. Pér., 2, p. 488, 1884—Peru (Lima, Auquimarca, Pumamarca, Callacate, Cutervo, Tamiapampa, Chota, Paucartambo, Huanta); Sclater, Cat. Bds. Brit. Mus., 11, p. 165, 1886—Bolivia (Tilotilo, Sorata), Peru (Arequipa, Maraynioc), and Ecuador (Sical, Cuenca); Salvin, Nov. Zool., 2, p. 5, 1895—Cajamarca and Huamachuco, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 375—Lima, Peru; idem, l.c., 1896, p. 344—La Merced, Maraynioc, and Tarma, Peru; Hartert, Nov. Zool., 5, p. 482, 1898—Ibarra and Cayambé, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—"Nanegal," Chillo Valley, and Tumbaco, Ecuador; Goodfellow, Ibis, 1901, p. 467—Quito, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 102, 1911—Tumbaco, Riobamba, and Chambo, Ecuador; idem, Rev. Franç. d'Orn., 2, p. 10, 1911—Araqueda, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1054, 1912—western Peru (Lima to Arequipa); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 85, 1922—Tumbaco and Quito, Ecuador.
- Tanagra frugilegus* Tschudi, Arch. Naturg., 10, (1), p. 286, 1844—Peru (type in Neuchâtel Museum); idem, Unters. Faun. Peru., Aves, p. 204, pl. 17, fig. 1, 1846—fruit gardens of Lima; Lafresnaye, Rev. Mag. Zool., (2), 1, p. 239, 1849 (crit.); Hartlaub, l.c., p. 498, 1849 (crit.).
- Calliste frugilegus* Bonaparte, Consp. Gen. Av., 1, (1), p. 236, 1850—Peru (ex Tschudi).
- Tanagra darwini laeta* Berlepsch and Stolzmann, Ornith., 13, p. 81, 1906—Cuzco, Peru (type in coll. of Count Berlepsch, now in Frankfurt Museum); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1054, 1912—western Ecuador and Peru.
- Thraupis darwini laeta* Bangs and Noble, Auk, 35, p. 460, 1918—Huanca-bamba, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 120, 1921—San Miguel Bridge, Matchu Picchu, Chospiyoc, Calca, Pisac, and Cuzco, Peru; Hellmayr, Nov. Zool., 30, p. 237, 1923—La Paz and Yungas, Bolivia.
- Thraupis darwini* (i) Chapman, Bull. Amer. Mus. N. H., 55, p. 674, 1926—Quito, Guápulo, Tumbaco, Cumbaya, Chimborazo, El Paso, Huigra, Riobamba, above Chambo, and Hacienda Garzón, Ecuador (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Tumbaco, Ecuador; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 446, 1930—Matucana, Huánuco, Panao, Chinchao, and Cullcui, Marañón River, Peru (crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—El Portete de Tarquí, Cuenca, Ecuador.
- Thraupis bonariensis darwini* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 19, p. 97, 1932—Putre, Tacna, Chile.
- Tanagra striata* (not of Gmelin) d'Orbigny, Voy. Amér. Mérid., Ois., p. 273, 1839—part, descr. of "female" and "young," La Paz, Yungas, and Sicasica, Bolivia (spec. in Paris Museum examined); Bonaparte, Consp. Gen. Av., 1, (1), p. 239, 1850—part, Peru (descr. of female); idem, Rev. Mag. Zool., (2), 3, p. 171, 1851—part, Peru (descr. of "female"); Sclater, Proc. Zool. Soc. Lond., 24, p. 235, 1856—part, Bolivia, Peru (Lima), and western Ecuador; Sclater and Salvin, l.c., 1869, p. 597—Cosnipata, Peru; idem, l.c., p. 600, 1879—part, La Paz, Bolivia; Taczanowski, Orn. Pér., 2,

p. 489, 1884—Cosnipata, Peru (not the description); Philippi, *Ornis*, 4, p. 159, 1888—Sibaya, Tarapacá, Chile.

*Range*.—Temperate zone of western Ecuador, Peru, northwestern Bolivia (Dept. La Paz), and northern Chile (provinces of Tacna and Tarapacá).

32: Ecuador (unspecified, 1); Peru (Cajamarca, 5; Hacienda Llagueda, 3; Macate, Ancachs, 4; Cullcui, Marañón River, 5; Chinchao, 1; Pano, 1; Huánuco, 6; Matucana, 2); Chile (Putre, Tacna, 4).

### Genus SPINDALIS Jardine and Selby

*Spindalis* Jardine and Selby, *Illustr. Orn.*, (n.s.), Part 2, pl. 9, May 27, 1837—type, by monotypy, *Spindalis bilineatus* Jardine and Selby=*Tanagra nigricephala* Jameson.

*Spizampelis* Bryant, *Proc. Bost. Soc. N. H.*, 10, p. 253, 1866—type, by subs. desig. (Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 165, 1886), *Tanagra pretrei* Lesson.

### \**Spindalis zena townsendi* Ridgway. ABACO SPINDALIS.

*Spindalis zena townsendi* Ridgway, *Proc. U. S. Nat. Mus.*, 10, p. 3, Apr. 25, 1887—Abaco Island, Bahamas (type in U. S. National Museum); Cory, *Bds. W. Ind.*, p. 289, 1889—Abaco; idem, *Auk*, 8, p. 296, 1891—Abaco; Ridgway, l.c., p. 334, 1891—Abaco; Cory, l.c., p. 350, 1891—Great Bahama and Abaco; idem, *Cat. W. Ind. Bds.*, p. 114, 1892—Abaco and Great Bahama; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 72, 1902—Abaco (monog.); Bonhote, *Ibis*, 1903, p. 288—Little Abaco (crit.); G. Allen, *Auk*, 22, p. 129, 1905—Abaco, Little Abaco, and Great Bahama; Riley, l.c., p. 360, 1905—Abaco; idem, in Shattuck, *The Bahama Islands*, pp. 355, 367, 1905—Abaco and Little Abaco (crit.); Todd and Worthington, *Ann. Carnegie Mus.*, 7, pp. 440, 464, 1911—Abaco (crit.); Berlepsch, *Verh. 5th Intern. Orn. Congr. Berlin*, p. 1056, 1912—Abaco.

*Range*.—Northern Bahamas (islands of Great Bahama, Little Abaco, and Abaco).<sup>1</sup>

188: Bahamas (Abaco, 46; Great Bahama, 142).

### \**Spindalis zena zena* (Linnaeus). BLACK-BACKED SPINDALIS.

*Fringilla zena* Linnaeus, *Syst. Nat.*, 12th ed., 1, p. 320, 1766—based on "Bahama Finch" Catesby, *Nat. Hist. Carolina*, etc., 1, p. 42, pl. 42; Bahama Islands=New Providence.

*Tanagra zena* Lafresnaye, *Rev. Zool.*, 10, p. 277, 1847—Bahama (descr. ex Brisson ex Catesby); Bryant, *Proc. Bost. Soc. N. H.*, 7, p. 111, 1859—New Providence.

*Spindalis zena* Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 231, 1856—part, descr. et hab. Bahamas; Cory, *Bds. Bahama Is.*, p. 92, 1880—New Providence,

<sup>1</sup> Birds from Great Bahama seem to be perfectly identical with those from Abaco.

Long Island, and "Inagua"; Sclater, Cat. Bds. Brit. Mus., 11, p. 169, 1886—New Providence (deser.); Cory, Auk, 3, p. 195, 1886—Bahamas (deser.); idem, Bds. W. Ind., p. 82, 1889—Bahamas; Northrop, Auk, 8, p. 70, 1891—Andros; Cory, l.c., pp. 294, 295, 1891—New Providence and Berry Islands; Ridgway, l.c., pp. 335, 336, 337, 339, 1891—New Providence, Eleuthera, Cat Island, and Green Cay; Cory, l.c., 9, p. 48, 1892—Mariguana; idem, Cat. W. Ind. Bds., p. 114, 1892—Bahamas (Berry Islands, New Providence, Andros, Cat Island, Long Island, Green Cay, Mariguana); Bonhote, Ibis, 1899, p. 512—Nassau; Bangs, Auk, 17, p. 293, 1900—Nassau, New Providence; Bonhote, Ibis, 1903, p. 288—Nassau; Allen, Auk, 22, p. 128, 1905—New Providence and Andros (crit.); Riley, l.c., p. 359, 1905—New Providence and Long Island (song); idem, in Shattuck, The Bahama Islands, pp. 355, 367, 1905—Berry Islands, Eleuthera, New Providence, Andros, Green Cay, Cat Island, Long Island, and Mariguana; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1056, 1912—Bahamas.

*Tanagra multicolor* Vieillot,<sup>1</sup> Tabl. Enc. Méth., Orn., livr. 91, p. 775, 1822—part, descr. of "male" and hab. "Floride (errore) et les Iles Bahama"; idem and Oudart, Gal. Ois., 1, (2), livr. 26, p. 100, pl. 76, 1823—part, descr. of adult male and hab. "en mer dans le canal de Bahama"; Lafresnaye, Rev. Zool., 10, p. 278, 1847—part, Bahamas (crit.).

*Spindalis zena stejnegeri* Cory, Auk, 8, p. 348, 1891—Eleuthera Island, Bahamas (type in coll. of C. B. Cory, now in Field Museum); idem, l.c., p. 351, 1891—Eleuthera; idem, Cat. W. Ind. Bds., pp. 114, 152, 1892—Eleuthera and Cat Island.

*Spindalis zena zena* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 70, 1902—Bahamas (monog.); Todd and Worthington, Ann. Carnegie Mus., 7, pp. 440, 463, 1911—New Providence, Cat Island, and Andros (habits, crit.).

*Range*.—Central Bahama Islands (Berry Islands, Eleuthera, New Providence, Andros, Green Cay, Cat Island, Long Island, and Mariguana).<sup>2</sup>

92: Bahamas (Andros, 48; Eleuthera, 18; Mariguana, 5; New Providence, 21).

**\**Spindalis zena pretrei* (Lesson). CUBAN SPINDALIS.**

*Tanagra pretrei* Lesson, Cent. Zool., p. 122, pl. 45, 1831—"Brésil," errore, = Cuba (type in coll. of M. Parhuit, doubtless lost); idem, Rev. Zool., 2, p. 103, 1839—"Brésil" (crit.); Lafresnaye, l.c., 10, p. 278, 1847—Cuba (crit.).

*Tanagra zena* (not *Fringilla zena* Linnaeus) Vigors, Zool. Journ., 3, No. 11, p. 441, Dec., 1827—Cuba; d'Orbigny, in Sagra, Hist. Cuba, Orn., p. 74, pl. 11, 1839—Cuba (excl. synonym.).

*Spindalis zena* Sclater, Proc. Zool. Soc. Lond., 24, p. 231, 1856—part, Cuba.

<sup>1</sup> *Tanagra multicolor* Vieillot, while comprising both *S. zena* and the Hispaniolan *Spindalis*, appears to refer primarily to the first-named, since the author describes the back as being black.

<sup>2</sup> The variety *S. z. stejnegeri* seems to be an individual mutant without geographical significance. In the material at hand I do not find that Andros specimens have less white in the tail, as has been claimed by G. M. Allen.

*Spindalis pretrei* Gundlach, Journ. Orn., 3, p. 476, 1855—Cuba (descr. of female and young male); idem, l.c., 20, p. 419, 1872—Cuba (descr., habits, nest, and eggs); Cory, Auk, 3, p. 196, 1886—Cuba (descr.); idem, Bds. W. Ind., p. 83, 1889—Cuba (descr.); Chapman, Bull. Amer. Mus. N. H., 4, p. 309, 1892—Trinidad, Cuba; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 68, 1902—Cuba and Isle of Pines (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1056, 1912—Cuba; Todd, Ann. Carnegie Mus., 10, p. 281, 1916—Los Indios, Siguana, Caleta Grande, and Bibijagua, Isle of Pines (crit.); English, Ibis, 1916, p. 33, pl. 1, fig. 2 (male)—Cuba; Barbour, Mem. Nutt. Orn. Cl., 6, p. 126, 1923—Cuba; Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 38, 1923—Puerto de Tánamo, Cuba.

*Spindalis pretrei* Sclater, Cat. Bds. Brit. Mus., 11, p. 168, 1886—San Cristóbal, Cuba; Cory, Cat. W. Ind. Bds., pp. 114, 129, 1892—Cuba and Isle of Pines.

*Spindalis pretrei pinus* Bangs and Zappey, Amer. Natur., 39, p. 213, 1905—Santa Fé, Isle of Pines (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 406, 1930); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1056, 1912—Isle of Pines.

*Range.*—Island of Cuba and Isle of Pines, Greater Antilles.<sup>1</sup>

17: Cuba (near Palacios, 10; San Diego de los Baños, 2; unspecified, 3); Isle of Pines (La Vega, 2).

\**Spindalis zena salvini* Cory.<sup>2</sup> SALVIN'S SPINDALIS.

*Spindalis salvini* Cory, Auk, 3, p. 499, 1886—Grand Cayman, south of Cuba (type in coll. of C. B. Cory, now in Field Museum); idem, Bds. W. Ind., p. 289, 1889—Grand Cayman; idem, Cat. W. Ind. Bds., pp. 114, 129, 152, 1892—Grand Cayman; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 74, 1902 (ex Cory); Lowe, Ibis, 1909, p. 346—Grand Cayman (crit.); idem, Ibis, 1911, p. 160—Grand Cayman; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1057, 1912—Grand Cayman; English, Ibis, 1916, p. 32, pl. 1, fig. 3 (male)—Grand Cayman (habits, nest, and eggs); Bangs, Bull. Mus. Comp. Zool., 60, p. 318, 1916—Grand Cayman (crit.; descr. of female).

*Range.*—Grand Cayman Island, south of Cuba.

30: Grand Cayman.

\**Spindalis zena benedicti* Ridgway.<sup>3</sup> COZUMEL SPINDALIS.

<sup>1</sup> The average larger size of the specimens from the Isle of Pines is not constant enough, to my mind, to warrant the maintenance of *S. p. pinus*.

<sup>2</sup> *Spindalis zena salvini* Cory is much like *S. z. pretrei* in coloration, but larger in all its proportions. The adult males vary a good deal, some having just as much chestnut below as the Cuban form, while in others the chest is nearly uniform lemon chrome. The female may generally be distinguished by its slightly paler, more grayish olive upper parts, in addition to its larger size.

<sup>3</sup> *Spindalis zena benedicti* Ridgway combines the dark coloration (back medal bronze with chestnut upper tail coverts) of *S. z. townsendi* with the large size of *S. z. salvini*, the bill being, however, even stouter and less constricted apically than in the latter.

The reappearance on Cozumel Island of a form closely similar to the birds inhabiting the northern Bahamas tends to prove the conspecific relationship of *S. zena*, *S. pretrei*, and allied "species."



- Spindalis benedicti* Ridgway, Proc. Biol. Soc. Wash., 3, p. 22, March 5, 1885—Cozumel Island, Yucatan (type in U. S. National Museum); idem, Proc. U. S. Nat. Mus., 8, p. 567, 1885—Cozumel (full descr. of male and female); Sclater, Cat. Bds. Brit. Mus., 11, p. 168, 1886—Cozumel; Salvin, Ibis, 1888, p. 258—Cozumel (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 72, 1902—Cozumel (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1057, 1912—Cozumel; English, Ibis, 1916, p. 33, pl. 1, fig. 1—Cozumel; Griscom, Amer. Mus. Nov., 236, p. 12, 1926—Cozumel.
- Spindalis exsul* Salvin, Ibis, (5), 3, No. 10, p. 189, pl. 5 (male), April, 1885—Cozumel Island (type, Salvin-Godman Collection, now in British Museum).

*Range*.—Cozumel Island, off Yucatan.

5: Cozumel Island.

\**Spindalis zena dominicensis* (Bryant).<sup>1</sup> HISPANIOLAN  
SPINDALIS.

- Tanagra dominicensis* Bryant, Proc. Bost. Soc. Nat. Hist., 11, p. 92, 1866—San Domingo (type, from Port-au-Prince, Haiti, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 405, 1930).
- Tanagra multicolor* Vieillot, Tabl. Enc. Méth., Orn., livr. 91, p. 775, 1822—part, descr. of "female" and hab., "Saint-Domingue"; idem and Oudart, Galerie Ois., 1, (2), livr. 26, p. 100, 1823—part, descr. of "female" and hab., "Saint-Domingue"; Lafresnaye, Rev. Zool., 10, p. 278, 1847—part, Saint-Domingue (crit.).
- Spindalis multicolor* (not of Vieillot) Bonaparte, Consp. Gen. Av., 1, (1), p. 240, 1850—Santo Domingo (diag.); Sclater, Proc. Zool. Soc. Lond., 24, p. 230, 1856—Santo Domingo (monog.); Sallé, l.c., 25, p. 231, 1857—Santo Domingo; Cory, Bull. Nutt. Orn. Cl., 6, p. 152, 1881—Haiti; idem, Bds. Haiti and San Dom., p. 54, pl. [7], 1885—Haiti (Le Coup) and Santo Domingo (Puerto Plata); idem, Auk, 3, p. 196, 1886—Hispaniola (descr.); Sclater, Cat. Bds. Brit. Mus., 11, p. 167, 1886—Santo Domingo; Tristram, Cat. Coll. Tristram, p. 220, 1889—Samaná; Cory, Bds. W. Ind., p. 83, 1889—Hispaniola (descr.); idem, Cat. W. Ind. Bds., p. 114, 1892—Haiti and San Domingo; idem, Auk, 12, p. 279, 1895—Santo Domingo; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 13, 1896—Catate and Aguacate, Santo Domingo (descr. of young male); Christy, Ibis, 1897, p. 323—north of Sánchez; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 67, 1902—Haiti (monog.); Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 363, 1909—Sánchez, Santo Domingo (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1056, 1912—Hispaniola; Peters, Bull. Mus. Comp. Zool., 61, p. 425, 1917—Bulla, Dominican Republic; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 516, 1928—Massif de la Hotte, Massif de la Selle, Montagnes Noires, Massif du Nord, and Gonave, Haiti; Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 325, 1929—Monte Viejo, Haiti; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 414, 1931—Hispaniola (monog.).

<sup>1</sup> Though easily recognizable by the wide light cadmium nuchal area of the adult male, striped under parts and yellowish rump of the female, as well as small, stout bill, I see in *S. z. dominicensis* only a well-marked race of the *S. zena* group.

*Spindalis dominicensis* Bangs and Penard, Bull. Mus. Comp. Zool., 67, p. 207, 1925 (crit., nomencl.); Wetmore and Lincoln, Proc. U. S. Nat. Mus., 82, art. 25, p. 62, 1933—La Hotte region, Haiti.

*Range*.—Island of Hispaniola (including Gonave Island), Greater Antilles.

15: Hispaniola (Le Coup, Haiti, 2; Kenskoff, Haiti, 2; Puerto Plata, 2; Catare, 4; Aguacate, 5).

**\**Spindalis zena portoricensis* (Bryant).<sup>1</sup> PORTO RICAN SPINDALIS.**

*Tanagra portoricensis* Bryant, Proc. Bost. Soc. Nat. Hist., 10, p. 252, 1866—Porto Rico (type lost, formerly in U. S. National Museum; cf. Bangs and Penard, Bull. Mus. Comp. Zool., 67, p. 202, 1925).

*Spindalis portoricensis* Gundlach, Journ. Orn., 26, p. 168, 1878—Porto Rico; idem, Anal. Soc. Esp. Hist. Nat., 7, p. 188, 1878—Mayagüez, Aguadilla, and Quebradillas, Porto Rico (habits); Selater, Cat. Bds. Brit. Mus., 11, p. 167, 1886—Porto Rico; Cory, Auk, 3, p. 197, 1886—Porto Rico (descr.); idem, Bds. W. Ind., p. 84, 1889—Porto Rico; idem, Cat. W. Ind. Bds., p. 114, 1892—Porto Rico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 65, 1902—Porto Rico (monog.); Bowdish, Auk, 20, p. 14, 1903—Aguadilla, Mayagüez, and Las Marias; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1056, 1912—Porto Rico; Wetmore, Bull. U. S. Dept. Agric., 326, p. 121, 1916—Porto Rico (food, habits); Struthers, Auk, 40, p. 478, 1923—Boquerón; Danforth, Journ. Dept. Agric. Porto Rico, 10, p. 108, 1926—Porto Rico (habits); Wetmore, N. Y. Acad. Sci., Sci. Surv. Porto Rico and Virgin Is., 9, p. 546, 1927—Porto Rico (monog.).

*Range*.—Island of Porto Rico, Greater Antilles.

13: Porto Rico (Mayagüez, 11; unspecified, 2).

**\**Spindalis zena nigricephala* (Jameson).<sup>2</sup> JAMAICAN SPINDALIS.**

*Tanagra nigricephala* Jameson,<sup>3</sup> Edinb. New Philos. Journ., 19, p. 213, 1835—“West India Islands”—Jamaica (location of type not stated); idem, L’Institut, 3, p. 316, Sept., 1835 (French translation); Gosse, Illust. Bds. Jamaica, pl. 56, 1849.

<sup>1</sup> *Spindalis zena portoricensis* (Bryant) is another strongly marked race, not unlike *S. z. dominicensis* in coloration, but with larger bill; the male with a much narrower, more orange nuchal collar, the rump green like the back, and the chestnut prepectoral band replaced by a small orange spot, etc.

<sup>2</sup> This is the most distinct member of the group, immediately recognizable by its large size, reduction of white in the tail, and the yellow under parts (excluding the pale gray throat and whitish crissum) in the female sex. To ornithologists of the old school it will no doubt rank as an excellent species.

<sup>3</sup> An earlier name is possibly *Fringilla cana* Gmelin (Syst. Nat., 1, (2), p. 920, 1789), based on “Le Serin de la Jamaïque” Brisson (Orn., 3, p. 189, 1760), which, in its turn, goes back to a bird described by Sloane (Voy. Jamaica, 2, p. 311, No. XLIX, 1725). Sloane’s account applies fairly well to the female of *S. z. nigricephala*, but there are some discrepancies as to certain proportions, which makes me hesitate to adopt Gmelin’s term.

- Spindalis bilineatus* Jardine and Selby, *Illust. Orn.*, (n.s.), Part 2, pl. 9, May, 1837—Jamaica (type in coll. of Sir W. Jardine, present location unknown).
- Tanagra zenoides* (Lafresnaye MS.) Des Murs, *Icon. Orn.*, livr. 7, pl. 40, after Jan., 1847—Jamaica (type in Paris Museum); Lafresnaye, *Rev. Zool.*, 10, p. 279, 1847—Jamaica (crit.).
- Tanagra zena* (not *Fringilla zena* Linnaeus) Gosse, *Bds. Jamaica*, p. 231, 1847—Jamaica (habits, nest, and eggs).
- Spindalis nigricephala* Bonaparte, *Consp. Gen. Av.*, 1, (1), p. 240, 1850—Jamaica (diag.); Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 230, 1856—Jamaica (monog.); idem, l.c., 1861, p. 74—Jamaica; idem, *Cat. Coll. Amer. Bds.*, p. 77, 1862—Jamaica; March, *Proc. Acad. Nat. Sci. Phila.*, 1863, p. 296—Jamaica (nest and eggs); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 166, 1886—Jamaica (Spanishtown, Moneague, Metcalf Parish); Cory, *Auk*, 3, p. 198, 1886—Jamaica (descr.); idem, *Bds. W. Ind.*, p. 85, 1889 (monog.); idem, *Cat. W. Ind. Bds.*, p. 114, 1892—Jamaica; Scott, *Auk*, 10, p. 180, 1893—Stony Hill and Priestman's River; Field, *Auk*, 11, p. 127, 1894—Port Henderson; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 64, 1902 (monog.); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1055, 1912—Jamaica; Danforth, *Auk*, 45, p. 490, 1928—Lumsden, Jacksontown, and Mandeville.

*Range*.—Island of Jamaica, Greater Antilles.

26: Jamaica.

### Genus RAMPHOCELUS Desmarest<sup>1</sup>

- Ramphocelus* Desmarest, *Hist. Nat. Tang.*, livr. 1, text to pl. 28, p. [1], 1805—type, by subs. desig. (Gray, *Cat. Gen. Subgen. Bds.*, p. 148, 1855), *Tanagra bresilia* Linnaeus.
- Ramphopsis* Vieillot, *Analyse Nouv. Orn. Élém.*, p. 32, 1816—type, by monotypy, "Bec-d'argent" Buffon=*Lanius carbo* Pallas.
- Jacapa* Gray,<sup>2</sup> *Cat. Gen. Subgen. Bds.*, p. 72, 1855—type, by tautonymy, *Tanagra jacapa* Linnaeus=*Lanius carbo* Pallas.
- Ramphocoelus* Sclater and Salvin, *Nomencl. Av. Neotrop.*, p. 21, 1873—emendation of *Ramphocelus* Desmarest.

### \**Ramphocelus bresilius bresilius* (Linnaeus). BRAZILIAN TANAGER.

*Tanagra bresilia* Linnaeus, *Syst. Nat.*, 12th ed., 1, p. 314, 1766—based on Brisson, Edwards, Marcgrave, etc.; "in India Occidentali et Orientali," errore; we suggest Pernambuco, eastern Brazil (ex Marcgrave).

<sup>1</sup>To this genus probably belong *Loxia laticauda* P. L. S. Müller (*Natursyst.*, Suppl., p. 151, 1776), *Loxia flabellum* Boddaert (*Tabl. Pl. Enl.*, p. 23, 1783), and *Loxia flabellifera* Gmelin (*Syst. Nat.*, 1, (2), p. 850, 1789). They are all based on "Gros-Becs appellés queue en éventail, de Virginie" Daubenton, *Pl. Enl.*, pl. 380, which looks very much like the female of some *Ramphocelus*.

<sup>2</sup>*Jacapa* Bonaparte (*Rev. Mag. Zool.*, (2), 3, p. 178, 1851) obviously is not proposed in a generic sense, while that name published by the same author in 1854 is a nomen nudum.

*Ramphocelus coccineus* Vieillot, Tabl. Enc. Méth., Orn., livr. 91, p. 797, 1822—based on "Le Cardinal" Brisson (Orn., 3, p. 42, pl. 3, fig. 1; Mexico and Brazil) and "Le Tangara du Mexique" Daubenton, Pl. Enl., pl. 127, fig. 1; "Brésil."

*Ramphopsis coccineus* Swainson, Orn. Draw., Part 2, pl. 18 (male), 19 (female), 1834—Brazil.

*Tanagra brasilia* Wied, Beitr. Naturg. Bras., 3, (1), p. 511, 1830—eastern Brazil (part, descr.).

*Ramphocelus brasilia* Bonaparte, Consp. Gen. Av., 1, (1), p. 242, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 173, 1856—Brazil (in part).

*R(h)amphoc(o)elus brasilius* Sclater, Proc. Zool. Soc. Lond., 24, p. 127, 1856—part, descr. and hab. Bahia; Forbes, Ibis, 1881, p. 333—Pernambuco (Recife; road from Iguarassú to Olinda) and Parahyba (as far as Catende); Sclater, Cat. Bds. Brit. Mus., 11, p. 170, 1886—part, spec. a-k, Pernambuco and Bahia; Nicoll, Ibis, 1904, p. 40—near Bahia; Ihering, Cat. Faun. Braz., 1, p. 358, 1907—part, Pernambuco, Bahia, and "Piauhy"; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1057, 1912—Pernambuco and Bahia; Lima, Rev. Mus. Paul., 12, (2), p. 101, 1920—Ilhéos to Belmonte, Bahia; Berlioz, L'Oiseau, (n.s.), 3, p. 589, 1933—part, Pernambuco to Bahia (crit.).

*Ramphocelus bresilius bresilius* Hellmayr, Verh. Orn. Ges. Bay., 12, p. 130, 1915—Bahia to Pernambuco.

*Range*.—Wooded region of eastern Brazil, from Bahia (Ilhéos) north to Parahyba.<sup>1</sup>

7: Brazil (Santo Amaro, Bahia, 2; Bahia, 5).

\**Ramphocelus bresilius dorsalis* Sclater.<sup>2</sup> SADDLE TANAGER.

<sup>1</sup>*Additional material examined*.—Brazil: São Lourenço, Pernambuco, 2; Bahia, 16.

<sup>2</sup>*Ramphocelus bresilius dorsalis* Sclater: Adult male similar to *R. b. bresilius*, but interscapular region tinged with morocco red or garnet brown, this area more or less contrasting with the scarlet red of the pileum and rump; female not certainly distinguishable.

Birds from Espirito Santo sometimes approach the nominate race, but as a whole are much nearer to the form of southern Brazil. Specimens from the extreme southern part of the range tend to be slightly larger. The types of *R. ephippialis* and *R. dorsalis* differ from all other examples examined by having the black subapical markings on the interscapulars much more extensive, leaving but narrow dark red apical margins and causing a coarse black spotting. The type of *R. ephippialis* is a perfectly adult male with bluish white basal half of the lower mandible. Its origin is quite doubtful. The type of *R. dorsalis*, prepared like a Bahia trade-skin (!), bears in the body plumage numerous brownish feathers—remains of the juvenile livery—and has the bill uniform horn brown. That these two birds belong to one and the same form appears to me beyond doubt; but whether the black spotting of the upper back signifies more than individual variation remains to be ascertained by a larger series.

*Additional material examined*.—Brazil: Espirito Santo (Victoria, Santa Izabel), 6; Santa Fé, Minas Geraes, 1; Rio de Janeiro, 5; Petropolis, 1; Sapitiba, Rio, 2; Pirahy, Rio, 2; São Sebastião, São Paulo, 4; Iguapé, São Paulo, 1; Rio do Boraxudo, Paraná, 1; Joinville, Santa Catharina, 3; unspecified, 2.



*Ramphocelus dorsalis* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 97, pub. April, 1855—"in imp. Brasiliensi" (type in coll. of P. L. Sclater, now in British Museum, examined); idem, l.c., 24, p. 127, 1856—southeast Brazil, Rio and "Pernambuco" (errore); idem, Cat. Coll. Amer. Bds., p. 78, 1862—Brazil; idem, Cat. Bds. Brit. Mus., 11, p. 171, 1886—southern Brazil (Paraná).

*Ramphocelus ephippialis* Sclater, Proc. Zool. Soc. Lond., 1861, p. 130—"in rip. fl. Amazonum sup.," errore (type in coll. of P. L. Sclater, now in British Museum, examined); idem, Cat. Coll. Amer. Bds., p. 78, 1862—"upper Amazon"; Pelzeln, Orn. Bras., 3, p. 210, 1870—Sapitiba (Rio de Janeiro) and Rio do Boraxudo (Paraná).

*Tanagra brasilia* (not of Linnaeus) Wied, Beitr. Naturg. Bras., 3, (1), p. 511, 1830—part, Rio de Janeiro, Cabo Frio, and Parahyba (not the description).

*Ramphocelus brasilia* Burmeister, Syst. Uebers. Th. Bras., 3, p. 173, 1856—part, Rio Macacú, Rio de Janeiro.

*R(h)amphoc(o)elus brasilius* Sclater, Proc. Zool. Soc. Lond., 24, p. 127, 1856—part, Rio; Euler, Journ. Orn., 15, p. 409, 1867—Cantagallo (nest and eggs descr.); Cabanis, l.c., 22, p. 83, 1874—Cantagallo, Rio de Janeiro; Sclater, Cat. Bds. Brit. Mus., 11, p. 170, 1886—part, spec. l-o, Santa Fé (Minas Geraes), Nova Friburgo, Rio Claro, "Goyáz," and São Paulo; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio; Ihering, Rev. Mus. Paul., 3, p. 151, 1899—São Sebastião, São Paulo; idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 358, 1907—part, Victoria, Espírito Santo; Berlioz, L'Oiseau, (n.s.), 3, p. 589, 1933—part, Porto Real and "Rio de la Plata," errore (crit.).

*Rhamphocelus brasilius dorsalis* Ihering, Cat. Faun. Braz., 1, p. 358, 1907—Espírito Santo (Rio Doce), São Paulo (São Sebastião, Cubatão, Santos, Ubatuba), and Santa Catharina (São Francisco); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1057, 1136, 1912—Espírito Santo and Minas Geraes to Santa Catharina; Hellmayr, Verh. Orn. Ges. Bay., 12, p. 129, 1915—Braço do Sul, near Victoria, Espírito Santo (crit., range).

*Range.*—Wooded region of southeastern Brazil, from Espírito Santo and southern Minas Geraes to Santa Catharina.

11: Brazil (Joinville, Santa Catharina, 11).

**\**Ramphocelus nigrogularis* (Spix). BLACK-THROATED TANAGER.**

*Tanagra nigrogularis* Spix, Av. Bras. Spec. Nov., 2, p. 35, pl. 47 (=male), 1825—"ad flumen Solimoëns in sylvis pagi St. Pauli"—São Paulo de Olivença, Rio Solimões, Brazil (type in Munich Museum; cf. Hellmayr, Abhandl. Bayr. Akad. Wiss., 2. Kl., 22, No. 3, p. 670, 1906).

*Tanagra (Ramphocelus) ignescens* Lesson, Cent. Zool., p. 77, pl. 24,<sup>1</sup> 1831—"Mexico," errore (type in Paris Museum).

*Tanagra ignescens* Lafresnaye, Mag. Zool., 7, cl. 2, text to pl. 81, p. 3, 1837 (crit.).

<sup>1</sup> "*Tanagra (Ramphopis) ignescens*" on the plate.

*Ramphopis nigro-gularis* Swainson, Orn. Draw., Part 2, pl. 17, 1834—Brazil.  
*Ramphocelus<sup>1</sup> nigrogularis<sup>2</sup>* Bonaparte, Proc. Zool. Soc. Lond., 5, p. 121, "1837" [=1838]—"that portion of Brazil, bordering on Peru" (crit.); idem, Consp. Gen. Av., 1, (1), p. 242, 1850—Brazil and "Mexico"; Burmeister, Syst. Uebers. Th. Bras., 3, p. 173, 1856—Rio Solimões; Sclater, Proc. Zool. Soc. Lond., 24, p. 128, 1856—Barra do Rio Negro, Brazil, and Sarayacu, Peru; idem, Cat. Coll. Amer. Bds., p. 78, 1862—Barra do Rio Negro; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—upper Ucayali, Peru; idem, l.c., 1867, pp. 571, 593, 977—right bank of the Rio Negro and Pebas, Peru; Pelzeln, Orn. Bras., 3, p. 210, 1870—Borba (Rio Madeira), Barra do Rio Negro, and Manaqueri (Rio Solimões), Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 262—Peru (Sarayacu, upper Ucayali, lakes of Santa Cruz, Pebas); Taczanowski, Orn. Pér., 2, p. 491, 1884—Peru (Sarayacu, Ucayali, Santa Cruz, Pebas, Moyobamba, Iquitos); Sclater, Cat. Bds. Brit. Mus., 11, p. 171, 1886—Barra do Rio Negro, Pebas, Ucayali, Iquitos, Sarayacu, Rio Javari, and eastern Ecuador (Sarayacu, Rio Napo); Berlepsch, Journ. Orn., 37, p. 297, 1889—Shanusi, near Yurimaguas, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Rio Napo, Ecuador; Goodfellow, Ibis, 1901, p. 467—Coca and Tiputini, Rio Napo, Ecuador; Hellmayr, Nov. Zool., 14, p. 45, 1907—Teffé, Rio Solimões, Brazil; idem, l.c., 14, p. 348, 1907—[Borba], Rio Madeira; Ihering, Cat. Faun. Braz., 1, p. 359, 1907 (range); Sneath, Journ. Orn., 55, p. 294, 1907—Cussary and Monte Alegre, Brazil; idem, l.c., 56, p. 10, 1908—Brazil, Rio Purús, Rio Lugar, Monte Verde, Ponto Alegre; Hellmayr, Nov. Zool., 17, p. 275, 1910—Allianca, Rio Madeira; Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Tocache, Rio Huallaga, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1061, 1912 (range); Sneath, Journ. Orn., 61, p. 520, 1913—Monte Alegre; idem, Bol. Mus. Goeldi, 8, p. 449, 1914—Cussary, Rio Purús (Bom Lugar, Monte Verde, Ponto Alegre), and Monte Alegre, Brazil; Chapman, Bull. Amer. Mus. N. H., 36, p. 609, 1917—La Morelia, Caquetá, Colombia; idem, l.c., 55, p. 675, 1926—Rio Suno, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, 31, p. 233, 1925—Sarayacu, Ecuador; idem, L'Oiseau, (n.s.), 3, p. 589, 1933—eastern Ecuador and northern Peru (crit.).

*Range*.—Northern Brazil, east to Monte Alegre on the north bank, and Cussary on the south bank of the Amazon, south to the upper Purús; eastern Peru; eastern Ecuador; southeastern Colombia (La Morelia, Caquetá).<sup>3</sup>

1: Peru (Pozuzo, Huánuco, 1).

<sup>1</sup> Various spelled *Ramphocelus*, *Ramphocoelus*, *Rhamphocelus*, or *Rhamphocoelus*.

<sup>2</sup> Frequently spelled *nigrigularis*.

<sup>3</sup> Specimens from various parts of the range agree.

*Additional material examined*.—Brazil: Borba, Rio Madeira, 6; Teffé, Rio Solimões, 4; Manaqueri, Rio Solimões, 2; São Paulo de Olivença, Rio Solimões, 1 (the type); Manáos, 1; Hyutanahan, Rio Purús, 2.—Peru: Rio Tigre, 2; Iquitos, 2.—Ecuador: Sarayacu, 4; Coca, 2; Rio Napo, 2.

**\**Ramphocelus carbo atrosericeus* Lafresnaye and d'Orbigny.<sup>1</sup>**  
BOLIVIAN SILVER-BEAKED TANAGER.

*Ramphocelus atrosericeus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 34, 1837—Yungas and "Chiquitos," Bolivia (type, from Yungas, in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 280, pl. 26, fig. 1 (adult male), 1839—Yungas (Chupé), Guarayos, Moxos, and "Chiquitos," Bolivia;<sup>2</sup> Bonaparte, Proc. Zool. Soc. Lond., 5, "1837," p. 121, 1838—Bolivia (ex d'Orbigny); Sclater, Cat. Coll. Amer. Bds., p. 79, 1862—Bolivia; Allen, Bull. Mus. Comp. Zool., 3, p. 353, 1876—Coroico [Yungas of La Paz], Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 600—Yungas (Chupé, Ramosani), Yuracares, Guarayos, Moxos, and "Chiquitos," Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 175, 1886—part, Bolivia (Ramosani); Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Mapiri, "Falls of the Madeira," and "Reyes, Beni River," Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1059, 1912—Bolivia ("Chiquitos," Ramosani, Moxos, San Mateo, Songo, Espirito Santo); Berlioz, L'Oiseau, (n.s.), 3, p. 591, 1933—Bolivia (crit.).

*Ramphocelus atrisericeus* Bonaparte, Consp. Gen. Av., 1, (1), p. 242, 1850—Bolivia; Sclater, Proc. Zool. Soc. Lond., 24, p. 130, 1856—part, descr. and hab. Bolivia.

*Ramphocelus carbo atrosericeus* Hellmayr, Nov. Zool., 32, p. 1, 1925—Yungas and Yuracares, Bolivia (note on type).

*Ramphocelus aterrimus* Lafresnaye, Rev. Mag. Zool., (2), 5, p. 244, 1853—Bolivia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 407, 1930;=female).

*Range.*—Tropical and lower Subtropical zone of Bolivia.

4: Bolivia (Buena Vista, Santa Cruz, 3; unspecified, 1).

**\**Ramphocelus carbo centralis* Hellmayr.<sup>3</sup>** BRAZILIAN SILVER-BEAKED TANAGER.

<sup>1</sup> *Ramphocelus carbo atrosericeus* Lafresnaye and d'Orbigny is the most strongly characterized race of the group. While differing in the male sex from *R. c. connectens* and *R. c. centralis* merely by the deeper (velvety) black coloration of the back, upper wing coverts, and lower under parts with the red gular area abruptly defined posteriorly, and much duller pileum, the female is at once recognizable by the uniform dusky black plumage, occasionally relieved by dull red edges to the feathers of the abdomen. Nine sexed specimens from Bolivia clearly show this to be the plumage of the adult female. The immature male is nearly similar.

*Additional material examined.*—Bolivia: Songo, Yungas of La Paz, 2; Omeja, Yungas of La Paz, 1; Yungas, 2 (including the type); Guarayos, 1; Espirito Santo, Yungas of Cochabamba, 2; San Mateo, Yungas of Cochabamba, 20.

<sup>2</sup> The description of the "female" as given by d'Orbigny probably refers to *R. c. centralis*, which may extend into Chiquitos, one of his localities, whence, however, no specimens exist in the Paris Museum.

<sup>3</sup> *Ramphocelus carbo centralis* Hellmayr: Closely similar to *R. c. connectens*, but with longer wings and tail; throat and foreneck in adult males deeper red, in females darker brown and less suffused with reddish anteriorly. Wing (adult males), 83–90; tail, 82–90.

As is the case in all of the other races, individual specimens may occur that are not certainly distinguishable from *R. c. carbo*. A striking example of this

*Ramphocelus carbo centralis* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 26 (footnote), Nov., 1920—Agua Suja, near Bagagem, Minas Geraes, Brazil (type in Munich Museum); Naumburg, Bull. Amer. Mus. N. H., 60, p. 375, 1930—Matto Grosso (Descalvados, Urucúm, Palmiras, Tapirapoan, Fazenda do São João, Rio São Lourenço, Campos Novos, Juruena, Siete de Septiembre, Barão Melgaço).

*Ramphocelus atrosericeus* (not of Lafresnaye and d'Orbigny) Pelzeln, Orn. Bras., 3, p. 211, 1870—São Paulo (Rio das Pedras, Rio Paraná), Goyáz (Goyáz City), and Matto Grosso (Cuyabá, Villa Maria, Engenho do Gama, Matto Grosso); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 429—Sete Lagõas (Minas Geraes) and Batataes (São Paulo); Allen, Bull. Amer. Mus. N. H., 3, p. 356, 1891—Chapada, Matto Grosso; Grant, Ibis, 1911, p. 94—Passage de Nigro and off Rabicho, Rio Paraguay, Matto Grosso.

*Rhamphocelus jacapa centralis* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 185, 1925—part, Bahia (Barra, Alagoinhas).

*Rhamphocoelus jacapa* (not *Tanagra jacapa* Linnaeus) Sclater, Cat. Bds. Brit. Mus., 11, p. 174, 1886—part, b', c', Bahia and Goyáz.

*Ramphocelus jacapa connectens* (not of Berlepsch and Stolzmann) Hellmayr, Nov. Zool., 13, p. 16, 1906—part, Brazil.

*R(h)amphocelus carbo connectens* Ihering, Cat. Faun. Braz., 1, p. 359, 1907—São Paulo (Jaboticabal, Baurú, Rio Feio, Barretos), Matto Grosso (Chapada), Goyáz, and Paraná (Ourinho); Hellmayr, Nov. Zool., 15, p. 28, 1908—Fazenda Esperança and Goyáz, Goyáz; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1058, 1912—part, Matto Grosso (Chapada, Descalvados), Rio Paraná, and Bahia; Bertoni, Faun. Parag., p. 62, 1914—Puerto Bertoni, Paraguay.

*Rhamphocoelus jacapa connectens* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—part, Bahia (Barra; Alagoinhas).

*Range*.—Tableland of Brazil, in states of Bahia (south of the Serra de Tabatinga) and Minas Geraes, southward to the northern parts of São Paulo and Paraná, west to Matto Grosso and the adjacent districts of Paraguay (Puerto Bertoni); (?) eastern Bolivia (Chiquitos).

14: Brazil (Chapada, Matto Grosso, 5; Descalvados, Paraguay River, 1; Piraputunga, Matto Grosso, 3; Veadeiros, Goyaz, 4; São Marcello, Bahia, 1).

mutation is an adult male from Rio Paraná, São Paulo (May 24, 1823), collected by Natterer, which has the body plumage tinged all over with claret brown, and cannot be told from Guianan birds picked at random.

*Additional material examined*.—Minas Geraes: Agua Suja, near Bagagem, 3; Rio Jordão, near Araguary, 2.—São Paulo: Fazenda Cayoá, Salto Grande do Rio Parapanema, 1; Rio Paraná, 3; Rio das Pedras, 2.—Goyáz: Goyáz City, 4; Fazenda Esperança, 3.—Matto Grosso: Chapada, 9; Cuyabá, 1; Villa Maria, 1; Engenho do Gama, 1.



**\**Ramphocelus carbo connectens* Berlepsch and Stolzmann.<sup>1</sup>**  
PERUVIAN SILVER-BEAKED TANAGER.

*Ramphocelus jacapa connectens* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 344—La Merced, Chanchamayo, Peru (type in coll. of H. von Berlepsch, now in Frankfort Museum, examined); idem, Ornith., 13, pp. 81, 110, 1906—Santa Ana, Idma, Huaynapata, San Pedro, and Escopal, Dept. Cuzco; Hellmayr, Nov. Zool., 13, p. 16, 1906—part, Peru.

*Ramphocelus carbo connectens* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1058, 1136, 1912—part, central and southeastern Peru (crit.); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 25, 1920—Chaquimayo, Carabaya (crit.); Chapman, Bull. U. S. Nat. Mus., 117, p. 120, 1921—Rio Comerciato, Santa Ana, and Idma, Urubamba; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 448, 1930—Rio Colorado (Chanchamayo) and Puerto Bermúdez (Huánuco); Berlioz, L'Oiseau, (n.s.), 3, p. 591, 1933—Urubamba (crit.).

*Ramphocelus atrosericeus* (not of Lafresnaye and d'Orbigny) Tschudi, Unters. Faun. Peru., Aves, p. 206, 1846—Peru; Sclater, Proc. Zool. Soc. Lond., 24, p. 130, 1856—part, Peru (ex Tschudi); Sclater and Salvin, l.c., 1873, p. 185—Cosnipata; Taczanowski, l.c., 1874, p. 512—Monterico, Ayacucho (descr. of nest and eggs); Sclater and Salvin, l.c., 1876, p. 16—Maranura and Potrero, Urubamba; Taczanowski, Orn. Pér., 2, p. 493, 1884—Monterico, Cosnipata, Maranura, Potrero, Chanchamayo, Montañas del Pangoa, and San Gaban; Sclater, Cat. Bds. Brit. Mus., 11, p. 175, 1886—part, southern Peru.

*Ramphocelus jacapa* (not *Tanagra jacapa* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 597—Cosnipata (spec. examined).

*Range*.—Tropical and lower Subtropical zone of eastern Peru, from Huánuco south to Carabaya.

6: Peru (Puerto Bermúdez, Huánuco, 1; Río Colorado, Chanchamayo, 3; San Ramón, Chanchamayo, 1; Urubamba Valley, 1).

**\**Ramphocelus carbo carbo* (Pallas). SILVER-BEAKED TANAGER.**

*Lanius* (*Carbo*) Pallas, in Vroeg, Cat. Rais. d'Ois., Adumbr., p. 2, 1764—Suri-nam (type in coll. Vroeg, doubtless lost).

*Tanagra jacapa* Linnaeus, Syst. Nat., 12th ed., 1, p. 313, 1766—based on "The Red-breasted Black-Bird" Edwards, Glean. Nat. Hist., 2, p. 120,

<sup>1</sup> *Ramphocelus carbo connectens* Berlepsch and Stolzmann, in the male sex, differs from *R. c. carbo* by duller, less reddish coloration, the back, upper wing coverts, and posterior lower parts being either dull blackish or but faintly glossed with maroon. It thus approaches *R. c. atrosericeus*, but is not so deep velvety black with the top and sides of the head more decidedly maroon, while the red gular area, instead of being abruptly defined posteriorly, blends with the color of the remaining under surface. Some individuals, however, irrespective of localities, are not separable from certain exceptionally dull-colored Guianan examples.

*Additional material examined*.—Huánuco: Pozuzo, 4.—Junín: La Merced, Chanchamayo, 7.—Cuzco: Cosnipata, 5; Maranura, 1; Huiro, Urubamba, 4; Santa Ana, Urubamba, 2; Chiri Nayo, Marcapata, 1; Chaquimayo, Carabaya, 5.

pl. 267 (Surinam); *Lanius carbo* Pallas; and "Jacapu" Marcgrave, Hist. Nat. Bras., p. 192 (northeastern Brazil).<sup>1</sup>

*Tanagra pompadura* P. L. S. Müller, Natursyst., Suppl., p. 159, 1776—based on "Tangara pourpré, de Cayenne" Daubenton, Pl. Enl., pl. 128, fig. 1.

*Tanagra albirostris* Boddaert, Tabl. Pl. Enl., p. 8, 1783—based on Daubenton, Pl. Enl., pl. 128, figs. 1, 2; Cayenne.

*Ramphocelus purpureus* Vieillot, Tabl. Enc. Méth., Orn., livr. 91, p. 796, 1822—new name for *Tanagra jacapa* Linnaeus.

*Ramphopis atro-coccineus* Swainson, Orn. Draw., Part 2, pl. 20, 1834—Brazil (type probably in the Swainson Collection, University Museum, Cambridge, Engl.); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 668, 1848—British Guiana.

*Ramphocelus jacapa* Lesson, Rev. Zool., 3, p. 132, 1840—"Guyane et Brésil"; Bonaparte, Consp. Gen. Av., 1, (1), p. 241, 1850—Cayenne and Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 172, 1856—Pará, Guiana, etc.; Sclater, Proc. Zool. Soc. Lond., 24, p. 128, 1856—British Guiana, Cayenne, and lower Amazon (diag.); idem, Cat. Coll. Amer. Bds., p. 78, 1862—Ecuador (Gualaquiza, Rio Napo), Cayenne, and Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—Nauta and upper Ucayali, Peru; idem, l.c., 1867, p. 571—Mexiana and Pará; idem, l.c., 1867, pp. 749, 977—Xeberos and Pebas, Peru; Layard, Ibis, 1873, p. 379—Pará; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 262—Nauta, upper Ucayali, Yurimaguas, Xeberos, Chyavetas, and Pebas, Peru; Taczanowski, l.c., 1882, p. 14—Huambo and Yurimaguas, Peru (crit.; eggs descr.); Allen, Bull. Essex Inst., 8, p. 78, 1876—Pará; Taczanowski, Orn. Pér., 2, p. 491, 1884—Peru (Ucayali, Xeberos, Moyobamba, Nauta, Huambo, Yurimaguas); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Machay and Mapoto, Ecuador; Salvin, Ibis, 1885, p. 210—British Guiana (Bartica Grove, Merumé Mountains, Camacusa, Roraima); Sclater, Cat. Bds. Brit. Mus., 11, p. 174, 1886—part, spec. a-w, British Guiana, Cayenne, Oyapoc, Mexiana, Pará, Peru (Nauta, Pebas), and Ecuador (Rio Napo, Sarayacu, Gualaquiza); Berlepsch, Journ. Orn., 37, pp. 99, 297, 1889—Fonte Bõa (Rio Solimões), Brazil, and Yarina Cocha (Ucayali) and Tarapoto, Peru; Riker and Chapman, Auk, 7, p. 267, 1890—Santarém; Goeldi, Ibis, 1897, pp. 155, 162—Counany and Amapá, Brazil; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 17, 1899—Gualaquiza and Zamora, Ecuador; Goodfellow, Ibis, 1901, p. 467—Archidona and Coca, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 20, 1902—Venezuela, Orinoco Valley (Perico, Maipures, Samborge, Munduapo, Caicara) and Caura River (Suapuré, La Prición); Goeldi, Ibis, 1903, p. 499—Rio Capim, Pará; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 182, 1904—Saint Georges d'Oyapock and Sinnamary, French Guiana; Hellmayr, Nov. Zool., 12, p. 274, 1905—Igarapé-Assú, Pará; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá, Brazil; Hagmann, Zool. Jahrb. (Syst.), 26, p. 27, 1907—Mexiana Island; Snethlage, Journ. Orn., 55, p. 294, 1907—Amapá, Mexiana, Marajó, Pará, Rio Mojú, and Santo Antonio do Prata, Brazil.

<sup>1</sup> Brisson's "Le grand Gobe-mouche noir de Cayenne," also quoted by Linnaeus, is a chatterer, *Querula purpurata* (P. L. S. Müller).

- Ramphocelus jacapa jacapa* Hellmayr, Nov. Zool., 13, p. 16, 1906 (range).
- Ramphocelus albirostris* Pelzeln, Orn. Bras., 3, p. 210, 1870—Ribeirão (Rio Madeira), Barra do Rio Negro, and Marabitanas, Brazil.
- Ramphocelus dimidiatus* (not of Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 26, p. 73, 1858—Rio Napo, Ecuador (female); Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 182, 1904—Macouria, French Guiana (spec. examined).
- Ramphocelus carbo* Richmond, Smiths. Misc. Coll., 47, p. 344, 1905 (nomencl.); Ihering, Cat. Faun. Braz., 1, p. 359, 1907—part, Rio Jurua; Berlepsch, Nov. Zool., 15, pp. 115, 317, 1908—Cayenne, Isle le Père, and Approuague, French Guiana; Sneath, Journ. Orn., 56, pp. 499, 523, 1908—Goyana, Tapajóz, and Arumatheua, Tocantins, Brazil; idem, Bol. Mus. Goeldi, 8, p. 448, 1914—Pará, Mocajutuba, Providencia, Ananindeua, Benevides, Peixe-Boi, Santo Antonio do Prata, Rio Mojú, Rio Tocantins (Cameté, Arumatheua), Rio Xingú (Victoria, Forte Ambé), Rio Tapajóz (Boim, Goyana), Rio Purús (Bom Lugar), Marajó (São Natal), Mexiana, Amapá, Monte Alegre, Rio Jary (Santo Antonio da Cachoeira), Obidos, and Maranhão; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1057, 1912 (range); Chubb, Bds. Brit. Guiana, 2, p. 519, 1921—British Guiana (Ituribisei River, Mazaruni, Demerara, Roraima, etc.); Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 60, 1926—Maranhão (Anil, São Bento, Tury-assú).
- Ramphocelus carbo carbo* Hellmayr, Nov. Zool., 13, p. 357, 1906—Santo Antonio do Prata, Pará; idem, l.c., 17, p. 275, 1910—Calama and Santa Izabel, Rio Madeira (nest and eggs descr.); idem, Abhandl. Bayr. Akad. Wiss., Math.-Phys. Kl., 26, No. 2, pp. 11, 87, 100, 119, 1912—Peixe-Boi, Pará localities, and Mexiana; Ménégau, Bull. Mus. Hist. Nat. Paris, 14, p. 8, 1908—French Guiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 178, 1916—Orinoco and Caura valleys, Venezuela; Beebe, Zoologica (N.Y.), 2, p. 100, 1916—Utinga, Pará; Chapman, Bull. Amer. Mus. N. H., 36, p. 609, 1917—east slope above Florencia, Florencia, and La Morelia, Caquetá, Colombia; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 88, 1918—Surinam (vicinity of Paramaribo, Lelydorp, Javaweg); Chapman, Bull. Amer. Mus. N. H., 55, p. 675, 1926—Ecuador (Zamora, Macas region, Rio Suno, San José) and Peru (Perico, Rio Chinchipe); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 175, 1928—Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 282, 1929—Maranhão (Anil; Barra do Corda; Codó, Cocos; São Francisco) and Piauí (Santa Philomena; Rio Taquarussú); Naumburg, Bull. Amer. Mus. N. H., 60, p. 374, 1930—São João, lower Rio Roosevelt; Chapman, l.c., 63, p. 131, 1931—Paulo and Arabupu, Roraima.
- Ramphocelus carbo connectens* (not of Berlepsch and Stolzmann) Sneath, Journ. Orn., 56, p. 10, 1908—Bom Lugar, Rio Purús; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1058, 1912—part, Piauí (Santa Philomena); Bangs and Noble, Auk, 35, p. 461, 1918—Perico and Bellavista, Peru.
- Ramphocelus jacapa connectens* Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—part, Piauí (Bõa Vista, near Brejão; Rio Taquarussú).

*Rhamphocelus jacapa centralis* (not *Rhamphocelus carbo centralis* Hellmayr)  
Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 185, 1925—  
part, Piauhy (Brejão and Santa Philomena).

*Rhamphocelus unicolor* (not of Sclater, 1856) Sclater, Proc. Zool. Soc. Lond.,  
26, p. 453, 1858—Gualaquiza and Zamora, Ecuador.

*Rhamphocelus carbo venezuelensis* (not of Lafresnaye) Berlepsch, Verh. 5th  
Intern. Orn. Kongr. Berlin, p. 1058, 1912—part, Caura and Orinoco,  
Venezuela.

*Jacapa purpureus* Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 31, 1857—  
Cayenne.

*Rhamphocelus luciani* (not of Lafresnaye) Ménégau, Rev. Franç. d'Orn., 2,  
p. 10, 1911—part, spec. ex Tocache, Peru (spec. examined).

*Range*.—French, Dutch, and British Guiana; southern Venezuela  
(Orinoco basin and its tributaries); northern Brazil, east to Maranhão  
and Piauhy, south to the sources of the Rio Araguaya, Goyáz, and  
to extreme northern Matto Grosso (lower Rio Roosevelt); northern  
Peru; eastern Ecuador; and southeastern Colombia (Caquetá).<sup>1</sup>

29: British Guiana (Mazaruni River, 2; Potaro, 3); Dutch  
Guiana (Paramaribo, 3); French Guiana (Saint-Jean-du-Maroni,  
2); Brazil (Bõa Vista, Rio Branco, 3; Utinga, Pará, 3; Manáos,  
2; Anil, Maranhão, 2; Barra do Corda, Maranhão, 1; Codó, Cocos,  
Maranhão, 2; São Francisco, Maranhão, 2); Colombia (La Morelia,  
Caquetá, 1); Peru (Yurimaguas, 3).

**\**Ramphocelus carbo venezuelensis* Lafresnaye.<sup>2</sup> VENEZUELAN  
SILVER-BEAKED Tanager.**

<sup>1</sup> Birds from the three Guianas, eastern Venezuela (Caura Valley), and Brazil  
north of the Amazon agree well together, showing the same limits of variation.  
Males from Pará, Maranhão, Piauhy, and the Rio Madeira tend somewhat in  
the direction of *R. c. centralis*, though by far the greater majority cannot be  
separated from the Guianan series. Of two adult males from Leopoldina (head-  
waters of the Rio Araguaya), Goyáz, one is an ultratypical *carbo*, while the other  
might just as well be referred to *centralis*. Birds from eastern Ecuador compare  
well with the Guianan average, while those from northern Peru are generally  
rather duller, thus verging toward *connectens*. On the upper Orinoco *carbo*  
passes into *venezuelensis*, four adult males being like Guianan specimens, whereas  
two others are hardly distinguishable from the excessively red *venezuelensis*.

*Additional material examined*.—French Guiana (Cayenne, Roche-Marie, Isle  
le Père, Approuague, Saint-Jean-du-Maroni), 18.—Dutch Guiana: Albina, 6;  
near Paramaribo, 8.—British Guiana: Roraima, 3; Merumé Mountains, 3.—  
Venezuela: Caura Valley (La Prición, La Unión, Suapuré, La Vuelta), 15; Maipures,  
Orinoco, 2; Perico, Orinoco, 7.—Ecuador: Coca, 3; Rio Napo, 3; Rio Suno, 4.—  
Peru: Iquitos, 5; Loretoyacu, 3; Sarayacu, 4; Xeberos, 1; upper Ucayali, 5;  
Huayabamba, 3.—Brazil: Fonte Bõa, Rio Solimões, 1; Calama, Rio Madeira, 3;  
Ribeirão, Rio Madeira, 1; Manáos, 1; Pará region, 12; Miritiba, Maranhão, 1;  
Brejão, Piauhy, 1; Rio Taquarussú, near Santa Philomena, Piauhy, 4; Leopoldina,  
Rio Araguaya, Goyáz, 3.

<sup>2</sup> *Ramphocelus carbo venezuelensis* Lafresnaye: Closely similar to *R. c. carbo*,  
but males with upper parts brighter and nearly uniform maroon from forehead to  
tail coverts; throat and foreneck more brilliantly garnet brown with a touch of



- Ramphocelus venezuelensis* Lafresnaye, Rev. Mag. Zool., (2), 5, p. 243, 1853—Venezuela (type, from Caracas, in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 407, 1930); Sclater, Proc. Zool. Soc. Lond., 24, p. 129, 1856—Venezuela (ex Lafresnaye); idem, Cat. Coll. Amer. Bds., p. 79, 1862—Venezuela; idem and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Venezuela=Caracas.
- Ramphocelus unicolor* Sclater, Proc. Zool. Soc. Lond., 24, p. 128, Aug., 1856—"New Grenada, Bogotá" (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., 25, p. 19, 1857—"Bogotá"; idem, Cat. Coll. Amer. Bds., p. 79, 1862—"New Grenada."
- Rhamphocelus jacapa* (not *Tanagra jacapa* Linnaeus) Sclater, Cat. Bds. Brit. Mus., 11, p. 174, 1886—part, spec. x-a', "Bogotá," Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—"Villa Vicencia, Llanos San Martín," Colombia.
- Rhamphocelus magnirostris* (not of Lafresnaye) Sclater, Cat. Bds. Brit. Mus., 11, p. 175, 1886—part, spec. d', e', Caracas, Venezuela.
- Ramphocelus jacapa venezuelensis* Hellmayr, Nov. Zool., 13, p. 16, 1906—north coast of Venezuela at San Esteban (diag.).
- Ramphocelus carbo venezuelensis* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1058, 1912—part, Puerto Cabello, Venezuela; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, pp. 61, 62, 1912—San Esteban and Las Quiguas, Carabobo, and San Cristóbal, Táchira, Venezuela (crit., range); Berlioz, L'Oiseau, (n.s.), 3, p. 590, 1933—Venezuela (crit.).
- Ramphocelus jacapa unicolor* Hellmayr, Nov. Zool., 13, p. 16, 1906—Colombia ("Bogotá") and Mérida, Venezuela (diag.).
- Ramphocelus carbo unicolor* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1058, 1912—Colombia ("Bogotá") and Andes of Mérida, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 610, 1917—Buena Vista and Villavicencio, Colombia; Berlioz, L'Oiseau, (n.s.), 3, p. 590, 1933—"Bogotá" (crit.).

*Range*.—Tropical and lower Subtropical zone of the Venezuelan mountain ranges from Caracas to Táchira and of the eastern slope of the eastern Andes of Colombia.

8: Venezuela (Macuto, Caracas, 5; Maracay, Aragua, 1; unspecified, 1); Colombia (Bogotá, 1).

carmine; breast and abdomen likewise brighter red. Wing (adult males), 75–80; tail, 73–80.

Though some of the most brightly colored individuals from Guiana (typical *carbo*) come very close, the present form is generally readily recognizable by its brighter and more uniform red plumage. On comparing satisfactory series from northern Venezuela and Colombia, I fail to discover any constant difference, and am compelled to unite *unicolor* to the earlier *venezuelensis*. As stated under *R. c. carbo*, birds from the upper Orinoco (Perico, Maipures) are exactly intermediate between *carbo* and *venezuelensis*, and it is a matter of personal preference to refer them to one rather than the other race.

*Material examined*.—Venezuela: "Caracas," 1; vicinity of Puerto Cabello, 8; San Esteban, Carabobo, 10; Valencia, Carabobo, 1; Aricagua, Táchira, 1; San Cristóbal, Táchira, 5.—Colombia: Buena Vista, 4; "Bogotá," 29.

**Ramphocelus carbo capitalis** Allen.<sup>1</sup> ALLEN'S SILVER-BEAKED TANAGER.

*Ramphocelus atroseiceus capitalis* Allen, Bull. Amer. Mus. N. H., 4, p. 51, 1892—El Pilar, near Carúpano [Sucre], Venezuela (type in the American Museum of Natural History, New York); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 178, 1916—Las Barrancas, north bank of lower Orinoco (crit.).

*Ramphocelus carbo capitalis* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 62, 1912—northeastern Venezuela (crit.).

*Ramphocelus jacapa magnirostris* (not of Lafresnaye) Phelps, Auk, 14, p. 364, 1897—Cumanacoa, Caripé, and San Antonio, Monagas; Hellmayr, Nov. Zool., 13, p. 16, 1906—part, northeastern Venezuela ("Cumaná" and Guanoco); Beebe, Zoologica (N.Y.), 1, p. 103, 1909—Guanoco and La Brea, Orinoco Delta (nesting).

*Ramphocelus carbo magnirostris* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1058, 1912—part, northeastern Venezuela ("Cumaná" and Guanoco); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 178, 1916—Guanoco.

*Ramphocelus carbo* (not *Lanius carbo* Pallas) Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 210, 1913—Cariquito and Pedernales (Paria Peninsula), Buelto Triste (Manimo River), and Guinipa, Orinoco Delta, Venezuela.

*Range.*—Tropical zone of northeastern Venezuela, from the Paria Peninsula and the hinterland of Cumaná to the delta region of the Orinoco (Las Barrancas, Guanoco, La Brea).

**\*Ramphocelus carbo magnirostris** Lafresnaye.<sup>2</sup> TRINIDAD SILVER-BEAKED TANAGER.

*Ramphocelus magnirostris* Lafresnaye, Rev. Mag. Zool., (2), 5, p. 243, 1853—"in Sanctae-Trinitatis insula" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull.

<sup>1</sup> *Ramphocelus carbo capitalis* Allen: Readily distinguished in the male sex from *R. c. carbo* and *R. c. magnirostris* by nearly blackish back, wing and tail coverts; much lighter and more brilliant (nearly nopal red) color of throat and foreneck; extensively blackish belly. In general coloration much like *R. c. connectens*, but smaller, the red of the gular area much paler as well as more brilliant, and the sides of the breast more strongly washed with red. Wing (males), 76–81; tail, 74–79.

Birds from Maturin and Guanoco (Orinoco Delta) agree perfectly with a topotypical series, though some individuals have rather larger bills, thus verging to *magnirostris* (of Trinidad).

*Material examined.*—Venezuela: San Antonio, 5; San Felix, 4; Maturin, 3; Guanoco, Orinoco Delta, 4.

<sup>2</sup> *Ramphocelus carbo magnirostris* Lafresnaye: Nearest to *R. c. carbo*, but larger, with much heavier, stronger bill; female generally darker, of a more uniform reddish color underneath. Wing (male), 81–85; tail, 76–86; bill, 16–17.

This race is much more constant in its characters than any of the continental representatives. In the large series examined there is not a single male that approaches in coloration the black-backed forms such as *R. c. capitalis*, *R. c. centralis*, or *R. c. connectens*.

*Material examined.*—Trinidad: Caparo, 41; Santa Cruz, 2; Icacos, 2; Caroni River, 1; Laventille, 2; Chaguaramas, 2; Valencia, 1; Seelet, 2; Savannah Grande, 1.

Mus. Comp. Zool., 70, p. 407, 1930); Slater, Proc. Zool. Soc. Lond., 24, p. 129, 1856—Trinidad (diag.); idem, Cat. Coll. Amer. Bds., p. 79, 1862—Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Finsch, Proc. Zool. Soc. Lond., 1870, p. 581—Trinidad (crit.); Slater, Cat. Bds. Brit. Mus., 11, p. 175, 1886—part, spec. f'-i', Trinidad.

*Ramphopsis jacapa* (not *Tanagra jacapa* Linnaeus) Léotaud, Ois. Trinidad, p. 288, 1866—Trinidad.

*Rhamphocelus jacapa* Slater, Cat. Bds. Brit. Mus., 11, p. 174, 1886—part, Trinidad; Williams, Bull. Dept. Agric. Trin. Tob., 20, p. 131, 1922—Maracas, Harmony Hall, and Palo Seco, Trinidad (nest and egg).

*Ramphocelus jacapa magnirostris* Chapman, Bull. Amer. Mus. N. H., 6, p. 30, 1894—Princetown, Trinidad; Hellmayr, Nov. Zool., 13, pp. 15, 16, 1906—part, Trinidad (Caparo, Valencia, Chaguaramas, Seelet, Laventille); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 358, 1908—Carenage, Trinidad.

*Ramphocelus carbo magnirostris* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 62, 1912—Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1058, 1912—part, Trinidad; Berlioz, L'Oiseau, (n.s.), 3, p. 590, 1933—Trinidad.

*Range*.—Tropical zone of the island of Trinidad.

2: Trinidad (Port-of-Spain, 2).

**\**Ramphocelus dimidiatus pallidirostris* Hellmayr.<sup>1</sup> PALE-BILLED CRIMSON-BACKED TANAGER.**

*Ramphocelus dimidiatus albirostris* (not *Tanagra albirostris* Boddaert) Griscom, Auk, 50, p. 307, 1933—Divalá, Pacific slope of Chiriquí, Panama (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Ramphocelus dimidiatus* (not of Lafresnaye) Slater, Proc. Zool. Soc. Lond., 24, p. 129, 1856—part, Chiriquí; idem, l.c., p. 142, 1856—David, Chiriquí; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 176, 1865—David, Chiriquí; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—part, David; idem, l.c., 1870, p. 138—part, Mina de Chorchá, Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 283, 1883—part, Chiriquí, David, and Mina de Chorchá; Slater, Cat. Bds. Brit. Mus., 11, p. 172, 1886—part, spec. b, g, Mina de Chorchá and Chiriquí; Bangs, Auk, 18, p. 369, 1901—Divalá and David, Chiriquí; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1059, 1912—part, David and Mina de Chorchá, Chiriquí.

<sup>1</sup> *Ramphocelus dimidiatus pallidirostris* nom. nov.

Similar to *R. d. isthmicus* and about the same size, but with much lighter bill. In the adult male, the mandible is bluish gray for the basal half, and the maxilla ivory white except for the abruptly black tip, while the female has the bill below extensively bluish gray basally, instead of wholly blackish as in the allied races. Wing (males), 78–80; tail, 70–72.

Seven specimens from Chiriquí are readily distinguishable from *R. d. isthmicus* by the pale coloration of their bills. *Tanagra albirostris* Boddaert, a synonym of *Ramphocelus carbo carbo*, prohibits the use of this term for any other member of the genus, and the Chiriquí form, accordingly, requires a new name.

*Ramphocelus dimidiatus dimidiatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 116, 1902—part, Chiriquí.

*Range*.—Tropical zone of western Panama (David, Divalá, El Banco, Mina de Chorcha, Boquerón, and Remedios, Chiriquí).

1: Panama (El Banco, Chiriquí, 1).

**\**Ramphocelus dimidiatus isthmicus* Ridgway.<sup>1</sup> PANAMA CRIMSON-BACKED TANAGER.**

*Ramphocelus dimidiatus isthmicus* Ridgway, Proc. Wash. Acad. Sci., 3, p. 150, Apr. 15, 1901—Frijole Station, Panama Railroad (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 118, 1902—Panama (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 222, 1906—Savanna of Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1059, 1912—Isthmus of Panama; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 278, 1918—Mindi, Tabernilla, Gatún, Fort Lorenzo, and Miraflores, Canal Zone (nest and eggs descr.); Rendahl, Ark. Zool., 12, No. 8, p. 34, 1919—Pacora River, Panama; Griscom, Auk, 50, p. 307, 1933—Panama from the Veraguas east to the Rio Chepo (crit.); Berlioz, L'Oiseau, (n.s.), 3, p. 593, 1933—Panama (crit.).

*Ramphocelus dimidiatus* (not of Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 331, 1861—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Panama Railroad; Salvin, l.c., 1867, p. 138—part, Santa Fé, Veragua; idem, l.c., 1870, p. 187—part, Veraguas (Calovévora, Chitrá, Castillo, Cordillera del Chucú); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 283, 1883—part, Veraguas (Castillo, Chitrá, Cordillera del Chucú, Calovévora, Santa Fé) and Panama (Lion Hill, Paraiso Station); Sclater, Cat. Bds. Brit. Mus., 11, p. 172, 1886—part, spec. c-m, Veraguas (Cordillera del Chucú, Calovévora, Chitrá, Santa Fé) and Panama (Isthmus of Panama, Paraiso Station); Bangs, Proc. New Engl. Zool. Cl., 2, p. 30, 1900—Loma del León, Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1059, 1912—part, Veragua; Hallinan, Auk, 41, p. 323, 1924—Las Cascadas, Gatún, Farfan, Rio Algarrobo, and Juan Mina, Canal Zone (nest and eggs descr.).

*Range*.—Tropical zone of Panama, from the Veraguas east to the Rio Chepo.

3: Panama (Colón, 3).

<sup>1</sup> *Ramphocelus dimidiatus isthmicus* Ridgway is a rather ill-defined form, as has been pointed out by Griscom. The longer tail (70-76 mm.) and the duller coloration of the females with less blackish head and throat serve, however, to distinguish it.

We have seen only nine specimens from the Canal Zone, but, according to Griscom, its range extends east at least to the Rio Chepo and west into Veraguas, where it intergrades with *R. d. pallidirostris*.

The locality "Nicaragua" given by Sclater (Proc. Zool. Soc. Lond., 24, p. 129, 1856) and repeated by Salvin and Godman (Biol. Centr.-Amer., Aves, 1, p. 283, 1883) is unquestionably a mistake.



**Ramphocelus dimidiatus limatus** Bangs.<sup>1</sup> SAN MIGUEL  
TANAGER.

*Ramphocelus limatus* Bangs, Auk, 18, p. 31, Jan., 1901—San Miguel Island, Bay of Panama (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 406, 1930).

*Ramphocelus dimidiatus limatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 119, 1902—San Miguel Island (monog.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 159, 1905—San Miguel, Saboga, and Pacheca Islands; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1059, 1136, 1912—San Miguel (crit.); Rendahl, Ark. Zool., 13, No. 4, p. 53, 1920—Pacheca, Chaperera, and Viveros Islands (crit.); Griscom, Auk, 50, p. 308, 1933—San Miguel and Coiba Islands (crit.).

*Range*.—Pearl Archipelago (islands of San Miguel, Saboga, Pacheca, Chaperera, Viveros), in the Bay of Panama; probably also Coiba Island.

**\*Ramphocelus dimidiatus dimidiatus** Lafresnaye. CRIMSON-  
BACKED TANAGER.

*Ramphocelus dimidiatus* Lafresnaye, Mag. Zool., 7, cl. 2, pl. 81 and text, p. 2, 1837—"sud du Mexique et de Carthagène (Nouvelle Grenade)" (type, from Carthagena, Colombia, in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 406, 1930); Lafresnaye and d'Orbigny, Rev. Zool., 1, p. 165, 1838—Carthagena; Selater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá," Colombia; idem, l.c., 24, p. 129, 1856—part, Colombia (Carthagena, Santa Marta, "Bogotá"); Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 141—Turbo, Colombia; Selater, Cat. Coll. Amer. Bds., p. 79, 1862—New Granada; Selater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—"San Esteban," Venezuela; idem, l.c., 1870, p. 780—south of Mérida, Venezuela; Wyatt, Ibis, 1871, p. 326—Paturia, Colombia (nest and eggs); Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 501—Antioquia, Remedios, and Neche, Colombia (nest and eggs descr.); Salvin and Godman, Ibis, 1880, p. 120—San Antonio, Santa Marta region, Colombia; idem, Biol. Centr.-Amer., Aves, 1, p. 283, 1883—part, Colombia (Turbo, etc.) and Venezuela; Berlepsch, Journ. Orn., 32, p. 291, 1884—Bucaramanga, Colombia; Selater, Cat. Bds. Brit. Mus., 11, p. 172, 1886—part, spec. n-v, Colombia (San Antonio, Remedios, Antioquia, "Bogotá") and Venezuela (Zulia); Berlepsch, Zeits. Ges. Orn., 4, p. 184, 1887—"Bogotá"; Robinson, Flying Trip to Tropics, p. 161, 1895—Magdalena River and Guaduas, Colombia; Bangs, Proc. Biol. Soc. Wash., 12, pp. 141, 159, 179,

<sup>1</sup> *Ramphocelus dimidiatus limatus* Bangs: Adult male nearest to *R. d. dimidiatus*, but general coloration somewhat paler, more scarlet, with the black abdominal patch greatly reduced in extent; female scarcely different from that of *R. d. isthmicus*.

Four specimens from San Miguel Island examined. According to Griscom, birds from Coiba Island are inseparable, but no females are yet available for examination.

1898—Santa Marta, Pueblo Viejo, Palomina, and San Miguel, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Ambalema and Ibagüé, Colombia; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Punta de Sabana, Darien; Allen, Bull. Amer. Mus. N. H., 13, p. 168, 1900—Cacagualito, Colombia; idem, l.c., 21, p. 292, 1905—Cacagualito and Don Diego, Colombia (nest and eggs descr.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1059, 1912—part, Colombia and Venezuela (Zulia).

*Ramphocelus dimidiatus dimidiatus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 116, 1902—part, Colombia ("Bogotá," Santa Marta, Carthagena, etc.); Chapman, Bull. Amer. Mus. N. H., 36, p. 609, 1917—Colombia (Quibdó, Bagado, Caldas, Puerto Valdivia, La Frijolera, Rio Frio, La Manuelita, Cali, San Agustin, La Candela, Andalucia, Chicoral, Honda, El Alto de la Paz, Tenasuca, Puerto Berrio, Varrud, Algodonal); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 228, 1922—Mount Sapo, Darien; Todd and Carriker, Ann. Carnegie Mus., 14, p. 486, 1922—La Concepción, Mamatoco, Cacagualito, Buritaca, Don Amo, Cincinnati, La Tigra, Minca, Agua Dulce, Fundación, Don Diego, Tierra Nueva, and Loma Larga, Colombia (habits); Griscom, Bull. Mus. Comp. Zool., 69, p. 189, 1929—Cana, Darien; Darlington, l.c., 71, p. 417, 1931—Rio Frio, Magdalena, Colombia; Griscom, l.c., 72, p. 370, 1932—Permé, Darien; idem, Auk, 50, p. 306, 1933—eastern Panama to Colombia (crit.); Berlioz, L'Oiseau, (n.s.), 3, p. 593, 1933—Colombia to Darien (crit.).

*Range*.—Tropical zone of extreme eastern Panama (Darien), Colombia, and extreme northwestern Venezuela (states of Zulia and Táchira).<sup>1</sup>

38: Panama (Agua Dulce, 1; Colón, 3); Colombia (Rio Atrato, 1; Fundación, Santa Marta, 1; El Guayabal, ten miles north of San José de Cucuta, Santander, 5; Rio Caquetá, Cauca, 1; Chicoral, Coello River, Tolima, 1; near San Agustin, Huila, 1; "Bogotá," 3); Venezuela (Colón, Táchira, 2; Catatumbo River, Zulia, 9; Encontrados, Zulia, 8; Orope, Zulia, 1).

\**Ramphocelus melanogaster melanogaster* (Swainson).<sup>2</sup> BLACK-BELLIED TANAGER.

<sup>1</sup>Specimens from Darien (Punta de Sabana) and Venezuela seem to agree with a Colombian series. Sclater and Salvin's record from "San Esteban," Carabobo, is obviously erroneous, probably a pen-slip for Zulia, whence the British Museum has a specimen collected by the late A. Goering (cf. Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 164 [note 2], 1912), while the reported occurrence on the Rio Napo, Ecuador, based on a single female, is doubtless due to a confusion with *R. c. carbo*.

Sixty-five specimens examined.

<sup>2</sup>*Ramphocelus melanogaster melanogaster* (Swainson), in the male sex, is very similar to *R. d. dimidiatus*, but the tail is proportionately longer; the upper part of the head is duller and darker red (between ox-blood red and garnet brown); the interscapular feathers have extensive (though concealed) subterminal areas of black, only the apical margins being dark red like the pileum; the bright red

*Rhamphopsis melanogaster* Swainson, Anim. Menag., p. 359, Dec. 31, 1837—Peru (type in coll. of W. Hooker, present location unknown).

*Rhamphocelus luciani* Lafresnaye, Rev. Zool., 1, p. 54, April, 1838—no locality indicated (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass., examined; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 406, 1930).

*Tanagra* (*Rhamphocelus*) *luciani* Lafresnaye, Mag. Zool., (2), 1, cl. 2, pl. 2 (=adult male), 1839—"Carthagène," errore.

*R(h)amphoc(o)elus luciani* Bonaparte, Consp. Gen. Av., 1, (1), p. 242, 1850—"Colombia" (ex Lafresnaye); Sclater, Proc. Zool. Soc. Lond., 24, p. 130, 1856—"Carthagena" (ex Lafresnaye); Taczanowski, Orn. Pér., 2, p. 494, 1884—Moyobamba, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 173, 1886—part, descr. and hab. Peru.

*Ramphocelus melanogaster* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1059, 1912—Peru (Rioja, Moyobamba).

*Ramphocelus melanogaster melanogaster* Zimmer, Proc. Biol. Soc. Wash., 42, p. 98, 1929—Peru (Moyobamba and Huallaga River).

*Range*.—Tropical and Subtropical zones of northern Peru, in Dept. San Martín (Moyobamba, Rioja).

11: Peru (Moyobamba, 11).

**\**Ramphocelus melanogaster transitus* Zimmer.<sup>1</sup> HUALLAGA  
BLACK-BELLIED TANAGER.**

(between carmine and nopal red) uropygial zone is less extended toward the mantle, being more confined to the rump and upper tail coverts.

The female closely resembles that of *R. carbo*, and notably *R. c. magnirostris* in the strongly reddish coloration of the under parts and upper tail coverts, but has the forehead and sides of the head clear pompeian red, thus differing markedly from the female of *R. d. dimidiatus* with its dusky blackish head, throat, and chest. Wing, 78–82, (female) 76; tail, 75–80; bill, 15–16.

Swainson's rather ambiguous description does not permit of any conclusion as to whether he had the present or the next race before him. Like other Peruvian novelties from W. Hooker's collection, the type was doubtless obtained by the orchid-hunter Andrew Mathews, whose travels covered the ranges of both races of *R. melanogaster*; but in the absence of the original example it seems advisable, at least provisionally, to follow Mr. Zimmer's lead in restricting the name to the northern form. The type of *R. luciani*, while slightly darker, less reddish on the pileum (a difference that may be due to fading), is certainly identical with the Moyobamba birds. Its origin is in doubt. Described at first without any locality, Lafresnaye subsequently gave "Carthagena" as its habitat, a locality which is clearly erroneous. Zimmer believes this "species" to be nearly related to *R. dimidiatus*, while Berlioz would associate it with *R. carbo*, his principal argument being the coloration of a female from Piña (on the Rio Mixiollo, an affluent of the Huallaga) supposed to belong to *melanogaster*. I am rather inclined to adopt Mr. Zimmer's view. As to the coloration of the female, it should be noted that the reddish forehead, alleged to be diagnostic of *melanogaster*, is absent in two (out of four) females from Moyobamba. A single adult male from Rioja agrees very well with those in Field Museum.

*Additional material examined*.—"Carthagena," 1 (type of *R. luciani*); Rioja, 1.

<sup>1</sup> *Ramphocelus melanogaster transitus* Zimmer: Adult male similar to *R. m. melanogaster*, but throat and breast paler, only the upper breast being colored like the throat or a trifle darker, this color passing gradually into the brighter red of the lower breast and flanks, whereas in the nominate race the deep red



*Ramphocelus melanogaster transitus* Zimmer, Proc. Biol. Soc. Wash., 42, p. 95, 1929—Chinchao, Dept. Huánuco, Peru (type in Field Museum); idem, Field Mus. Nat. Hist., Zool. Ser., 17, p. 449, 1930—Chinchao and Vista Alegre, Peru.

*Rhamphocelus luciani* (not of Lafresnaye) Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—part, spec. ex Supuna, Rio Tocache, Peru (spec. in Paris Museum examined).

*Ramphocelus melanogaster melanogaster* (not *Rhamphopsis melanogaster* Swainson) Berlioz, L'Oiseau (n.s.), 3, p. 593, 1933—part, adult male and (?) female, Peru (crit.).

*Range*.—Tropical and Subtropical zones of central Peru (valleys of the upper Huallaga and its tributaries, the Chinchao and Tocache).

5: Peru (Chinchao, 1; Vista Alegre, 4).

\**Ramphocelus passerinii passerinii* Bonaparte. PASSERINI'S TANAGER.

*R(h)amphoc(o)elus passerinii* Bonaparte, "Antologia, 1831, No. 130, p. 3"; idem, Isis, 1833, p. 755—"in insula Cuba" (location of type not stated);<sup>1</sup> Lafresnaye, Mag. Zool., 7, cl. 2, text to pl. 81, p. 3, 1837—"Cuba" (reprint of orig. descr.); Lesson, Rev. Zool., 3, p. 133, 1840—"Cuba, Mexico" (ex Bonaparte); Sclater, Proc. Zool. Soc. Lond., 24, p. 130, 1856—part, "Colombia River, Oregon," Mexico, Guatemala, and Nicaragua; Moore, l.c., 27, p. 59, 1859—Omoa, Honduras; Sclater and Salvin, Ibis, 1859, p. 16—Yzabal and Cajabón, Guatemala; idem, Ibis, 1860, p. 32—Yzabal; Taylor, Ibis, 1860, p. 111—Atlantic coast of Honduras; Cabanis, Journ.

of the throat is carried well across the chest, being abruptly separated from the brighter red of the lower breast and flanks; interscapular region more strongly washed with red; female not distinguishable. Wing (male), 80; tail, 75; bill, 15.

In addition to the original series collected by Mr. Zimmer, we have examined two adult males from Supuna, on the Rio Tocache (joining the Huallaga at Tocache); an adult male from Pisana; and a couple of adults from Tocache, on the Huallaga. One of the Supuna males (Munich Museum, No. 09.5247) agrees fairly well with the type, though in the coloration of the anterior lower parts it is somewhat intermediate to *melanogaster*, while the second specimen (coll. Paris Museum), by its dark red, abruptly defined gular area, is almost indistinguishable from the latter. These birds, coming as they do from the upper Huallaga region, throw serious doubts on the validity of *R. m. transitus*, whose ultimate fate depends on the study of additional material.

The males from Pisana and Tocache strongly suggest hybridization with *R. c. carbo*. The first-named bird (Munich Museum, No. 09.5246) resembles *carbo* on the upper parts, but has bright nopal red tips (or margins) to some of the tail coverts and uropygial feathers, while underneath it is similar to *melanogaster*, with, however, more black along the abdominal line. The Tocache male (coll. Paris Museum) is colored like *carbo*, and the only traces of *melanogaster* strain are a few bright (nopal) red feathers on under tail coverts and flanks and a band (about 8 mm. wide) of the same color across the lower rump. While a female from Tocache (Munich Museum, No. 09.5248) is undoubtedly *melanogaster (transitus)*, the one from Piña, mentioned by Berlioz, which we have not examined, may be referable to *carbo*, though we have yet to see "pure-blooded" males of the latter from the Huallaga River.

<sup>1</sup> I have not been able to consult the original description, which is credited by both Ridgway and Berlepsch with the locality "Mexico or Cuba." Berlepsch (1912, p. 1060) suggests "Guatemala" as terra typica.



- Orn., 8, p. 330, 1860—Costa Rica; Sclater, Cat. Coll. Amer. Bds., p. 79, 1862—Nicaragua and Honduras; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 180, 1865—Greytown, Nicaragua; Sclater and Salvin, l.c., 1867, p. 278—Bluefields River, Nicaragua; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 99, 1868—Costa Rica (Angostura, San Carlos, Navarro) Salvadori, Atti Accad. Sci. Torino, 4, p. 176, 1868—Costa Rica; Frantzius Journ. Orn., 17, p. 299, 1869—Costa Rica (Angostura, Orósi, Tucuriquí, San Carlos, Sarapiquí); Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—[San Pedro], Honduras; Salvin, Ibis, 1872, p. 316—Chontales, Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—Costa Rica (San Carlos, Naránjo); idem, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 43, 1878—Guatemala; Nutting, Proc. U. S. Nat. Mus., 5, p. 499, 1882—Costa Rica (San José); idem, l.c., 6, p. 399, 1883—Los Sábalos, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 281, pl. 18, fig. 1, 1883—part, British Honduras to Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 176, 1886—part, Honduras to Costa Rica; Zeledón, Anal. Mus. Nat. Costa Rica, 1, p. 109, 1887—Costa Rica (Navarro de Cartago, Jiménez, Naránjo de Cartago, and Esparta); Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1888—Segovia River, Honduras; Richmond, l.c., 16, p. 489, 1893—Rio Escondido, Nicaragua (habits, nest, and eggs); Lantz, Trans. Kans. Acad. Sci., 16, p. 223, 1899—Santo Tomás, Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 109, 1902—from Tabasco (Teapa) to Panama (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1906—Ceiba and Yaruca, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 122, 1907—Los Amates, Guatemala; Ferry, l.c., p. 278, 1910—Costa Rica (Guayábo, Port Limón); Carriker, Ann. Carnegie Mus., 6, p. 850, 1910—Caribbean side of Costa Rica (habits, nest, and eggs); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1060, 1912—Tabasco to Costa Rica (excl. of Pózo Azul and Chiriquí); Crandall, Zoologica (N.Y.), 1, p. 343, 1914—Guápiles, Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 34, 1919—Costa Rica (Talamanca, Sipurio, Siquírres) and Nicaragua (San Juan del Norte); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 463, 1928—Almirante, Panama; Austin, Bull. Mus. Comp. Zool., 69, p. 391, 1929—Cayo, British Honduras; Peters, l.c., 69, p. 472, 1929—Lancetilla, Honduras; idem, l.c., 71, p. 341, 1931—Almirante, Banana River, Chiriquito, and Crimacola, Panama; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 245, 1932—Eden, Nicaragua (eggs descr.); Stone, l.c., p. 338, 1932—Lancetilla, Honduras; Berlioz, L'Oiseau, (n.s.), 3, p. 598, 1933—Guatemala, Costa Rica, and Panama (crit.).
- Ramphocelus passerinii passerinii* Griscom, Bull. Amer. Mus. N. H., 64, p. 377, 1932—Guatemala (Finca Chamá, Secanquim, and Pueblo).
- (?) *R(h)amphoc(o)elus uropygialis* Bonaparte, Rev. Mag. Zool., (2), 3, p. 178, 1851—Guatemala (type in coll. of J. Verreaux, now in British Museum); Sclater, Proc. Zool. Soc. Lond., 24, p. 130, 1856—Guatemala (crit.); idem, Cat. Coll. Amer. Bds., p. 79, 1862—Guatemala; Salvin, Ibis, 1866, p. 193—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 284, pl. 18, fig. 2, 1883—Guatemala; Sclater, Cat. Bds. Brit. Mus., 11, p. 173, 1886—Guatemala; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 119, 1902—Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin,

pp. 1059, 1136, 1912—Guatemala (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 377, 1932—Guatemala (occurrence questioned); idem, Auk, 49, pp. 200–202, 1932 (crit.).

(?) *Ramphocelus affinis* Lesson, Rev. Zool., 3, p. 1, 1840—"Mexico" (location of type not stated); idem, l.c., p. 133, 1840—"Colombie" (full descr.).

*Ramphocelus luciani* (not of Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 331, 1861—Lion Hill, Panama (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 284, 1883—part, Lion Hill; Sclater, Cat. Bds. Brit. Mus., 11, p. 173, 1886—part, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 115, 1902—part, Panama, Lion Hill (descr. of male and female); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1060, 1902—part, Lion Hill, Panama.

*Ramphocelus chrysopterus* Boucard, The Humming Bird, 1, No. 7, p. 53, July 1, 1891—Panama (cotypes in Paris Museum and Tring Collection examined); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 112, 1902—Panama (ex Boucard).

*Ramphocelus chrysonotus* (not of Lafresnaye) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1061, 1138, 1912—part, Panama (crit.).

*R(h)amphoc(o)elus dunstalli* Rothschild, Nov. Zool., 2, p. 481, 1895—Panama (type in coll. of Tring Museum examined); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 115, 1902—Panama (ex Rothschild); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1060, 1137, 1912—Panama (crit.).

*Range*.—Caribbean forests from southeastern Mexico (Teapa, State of Tabasco) through British Honduras, Guatemala, Honduras, Nicaragua, and Costa Rica to western Panama.<sup>1</sup>

<sup>1</sup> Birds from eastern Costa Rica are indistinguishable from Guatemala and Honduras specimens. *R. chrysopterus* is merely a color variety, agreeing with *passerini* in dimensions (wing, 76–80; tail, 68–71), but with orange not scarlet uropygial area. The four specimens, all of the well-known Panama preparation and marked by Boucard as "type," which we have examined in the collections at Tring and Paris, vary somewhat in the coloration of the rump. The darkest individual closely approaches *passerini*, whereas the palest example corresponds to the average of *flammigerus*. While Griscom is certainly mistaken in regarding this bird of hybrid origin (*R. flammigerus* × *R. icteronotus*), as has been shown by Berlioz (L'Oiseau, (n.s.), 3, p. 599, 1933), its variation is strongly suggestive of close relationship between *passerini* and *flammigerus*.

*R. dunstalli*, which Griscom interprets as a hybrid between *R. dimidiatus* and *R. icteronotus* (!), appears to me merely a "freaky" mutation of *R. passerini*. The Lion Hill bird (American Museum of Natural History, No. 40,737. Male. J. R. Galbraith) is unquestionably the same as the type, with which it has been directly compared by me. It merely differs by more extensive dusky interscapular area; slightly deeper red (scarlet rather than flame-scarlet) rump; and deeper scarlet (in the type orange scarlet) color of the under parts, especially laterally, with much more black along the middle line. A second male from Panama in the Tring Collection is intermediate between the two in the tone of the red on rump and under parts as well as in the extent of the blackish abdominal line, but the throat is lighter maroon red than in either. A similar variety, in which the black of the lower surface (excepting the throat and a more or less distinct abdominal streak) is replaced by the color of the uropygium, also occurs in *R. icteronotus*, and has been named *R. inexpectatus*.

*R. affinis* Lesson and *R. uropygialis* Bonaparte are probably likewise mutants of *R. passerini*. Although Griscom questions Bonaparte's locality, Salvin and Godman mention having seen a similarly colored specimen from Guatemala.

68: Mexico (Teapa, 4); British Honduras (Middlesex, 1); Guatemala (Chapada, 1; Los Amates, Izabal, 7); Nicaragua (San Emilio, Lake Nicaragua, 1); Costa Rica (Guayábo, 8; Guanacaste, 1; La Vijagua, 1; Port Limón, 40; Matina, 4).

**\**Ramphocelus passerinii costaricensis* Cherrie.<sup>1</sup> CHERRIE'S Tanager.**

*Ramphoc(o)elus costaricensis* Cherrie, Auk, 8, p. 62, 1891—Pózo Azul [de Pirrís], Costa Rica (descr. of female; type in Museo Nacional, Costa Rica); idem, Proc. U. S. Nat. Mus., 14, p. 531, 1891—"Navárrro," Costa Rica;<sup>2</sup> idem, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 3, p. 135, 1892—Boruca, Palmar, and Buenos Aires, Costa Rica (descr. of adult male); idem, l.c., 4, p. 137, 1893—Costa Rica (Buenos Aires, Térraba, Boruca, Lagarto, Palmar); idem, Auk, 10, p. 278, 1893—Boruca, Palmar, and Buenos Aires (habits, song; descr. of adult male); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 111, 1902—southwestern Costa Rica (Pózo Azul, Boruca, Palmar, Buenos Aires, "Navárrro"); Bangs, Auk, 24, p. 309, 1907—Boruca, Paso Real, and El Pózo de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 851, 1910—southwestern Costa Rica (from Puntarenas southward); Berlioz, L'Oiseau, (n.s.), 3, p. 598, 1933—Chiriquí (crit.).

*Ramphocelus passerinii costaricensis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1060, 1912—southwestern Costa Rica and Panama (Divalá).

*R(h)amphoc(o)elus passerinii* (not of Bonaparte) Selater, Proc. Zool. Soc. Lond., 24, p. 130, 1856—part, Chiriquí; idem, l.c., p. 142, 1856—Davíd, Chiriquí; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 176, 1865—Davíd; Salvin, Proc. Zool. Soc. Lond., 1867, p. 138—Davíd; idem, l.c., 1870, p. 187—Mina de Chorcha and Bugaba, Chiriquí; Nutting, Proc. U. S. Nat. Mus., 5, p. 391, 1882—between San José and Puntarenas, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 281, 1883—Panama (Chiriquí, Davíd, Bugaba, Divalá, Mina de Chorcha) and Costa Rica (La Barránca); Selater, Cat. Bds. Brit. Mus., 11, p. 176, 1886—part,

<sup>1</sup> *Ramphocelus passerinii costaricensis* Cherrie: Adult male similar to *R. p. passerinii*, but female and immature male readily distinguished by having the rump much more orange (raw sienna to xanthine orange instead of deep olive ochre) and the upper chest orange to orange chrome.

Although occasional individuals are but slightly different, the great majority from the Pacific coast are easily told by the characters above given. Birds from the western side of the Volcan de Chiriquí (Divalá, Bugaba) are identical with a Costa Rican series. The type of *R. festae*, which we saw years ago at the Turin Museum, appears to be an individual mutant, having a broad, semilunar band of dull red across the chest. The Munich Museum has an interesting specimen collected on November 20, 1905, by J. H. Watson at Frances, Chiriquí (No. 09.5343), which closely resembles the so-called *R. dunstalli* (= *luciani* Lawr.) and tends to show that this mutation springs up throughout the range of the species.

*Additional material examined*.—Costa Rica: Térraba, 6; Palmar, 2; Boruca, 3; Buenos Aires, 24; Puerto Jiménez, Golfo Dulce, 4.—Panama: Divalá, 3; Chiriquí, 4.

<sup>2</sup> This locality is extremely questionable, *R. p. costaricensis* being confined to the Pacific side of Costa Rica.



spec. o, p, s, u-w, Costa Rica (La Barránca) and Panama (Bugaba, Mina de Chorchá, Chiriquí); Salvadori and Festa, *Boll. Mus. Zool. Torino*, **14**, No. 339, p. 4, 1899—Chiriquí; Bangs, *Auk*, **18**, p. 369, 1901—Divalá and David, Chiriquí; idem, *Proc. New Engl. Zool. Cl.*, **3**, p. 66, 1902—Bugaba, Chiriquí; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1060, 1912—part, Chiriquí.

*R(h)amphoc(o)elus festae* Salvadori, *Boll. Mus. Zool. Torino*, **11**, No. 249, 1896—Chiriquí (type in Turin Museum); idem and Festa, *l.c.*, **14**, No. 339, p. 4, 1899—Chiriquí; Ridgway, *Bull. U. S. Nat. Mus.*, **50**, Part 2, p. 115, 1902—Chiriquí (ex Salvadori); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1060, 1138, 1912—Chiriquí (crit.).

*Range*.—Tropical zone of the Pacific side of Costa Rica (from Puntarenas southward) and extreme western Panama (David, Divalá, Bugaba, and Mina de Chorchá, Chiriquí).

6: Costa Rica (Buenos Aires, 2; El Pózo, Rio Térraba, 1; Térraba, 2); Panama (Chiriquí, 1).

\***Ramphocelus flammigerus** (Jardine and Selby).<sup>1</sup> VARIABLE Tanager.

*Ramphopsis flammigerus* Jardine and Selby, *Illustr. Orn.*, **3**, Part 9, pl. 131, Feb., 1833—"some part of the district upon the Columbia River" (type in coll. of J. Gould, present location unknown).

<sup>1</sup> *Ramphocelus flammigerus* (Jardine and Selby): Male similar to *R. p. passerinii* and *R. p. costaricensis*, but larger; female agreeing with the latter in the presence of an orange to orange chrome band across the chest, but posterior under parts lemon chrome to light cadmium instead of buffy citrine to orange citrine; throat more or less yellow, not grayish; pileum and mantle blackish; rump much brighter, light cadmium to deep orange chrome. Wing (males), 86-94, (female) 84-88; tail, 79-85.

The color of the rump, in this species, varies from cadmium yellow to light scarlet. Specimens with yellow rump were described as *R. chrysonotus*, while those with scarlet uropygial area are known under the name of *R. flammigerus*, the two "extremes" being connected by every imaginable intermediate shade. Females of the yellow-rumped variety are frequently paler yellow beneath without any red on chest or under tail coverts. This unusual variation has given rise to the supposition that the so-called "*R. chrysonotus*" might be the result of hybridization between *R. flammigerus* and *R. icteronotus*. I am not prepared to accept this explanation and feel rather inclined to attribute the case to an excessive amount of individual variability. So far as our present knowledge goes, *R. flammigerus* (including *chrysonotus*) inhabits only the mountain slopes bordering the Cauca Valley, where, except at a few isolated spots, one of the supposed parents (*R. icteronotus*) obviously does not occur. Besides, the female of the latter species still differs widely, even from the yellow-bellied examples of the "*chrysonotus*" type.

*R. flammigerus*, in the male sex, is closely similar to *R. p. passerinii*, and shows about the same variation as to the color of the rump, which, in Panama examples, ranges from scarlet to cadmium yellow ("*chrysopterus*"), but it is larger in all dimensions. The red chest band and the orange rump, suggested in *R. p. costaricensis*, are carried a step farther in *flammigerus*, and may indicate conspecific interrelationship.

*Additional material examined*.—Colombia: Jiménez (alt. 1,600 feet), 2; Rio Caquetá, Cauca, 4; Cauca, 2; Jerico, 2; Medellín, 10; "Bogotá," 2.



*R(h)amphoc(o)elus flammigerus* Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 131, 1856—Colombia (Cali and "Bogotá"); idem, Cat. Coll. Amer. Bds., p. 79, 1862—New Granada and "Santa Marta";<sup>1</sup> Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 501, pl. 42, fig. (egg)—Medellin, Colombia (egg descr.); Sclater, Cat. Bds. Brit. Mus., 11, p. 177, 1886—Colombia (Medellin, Antioquia); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1060, 1912—Colombia (Medellin "Bogotá"); Piguët, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Medellin; Chapman, Bull. Amer. Mus. N. H., 36, p. 610, 1917—San Antonio, Cali, La Manuelita, Miraflores, Guengüe, Popayán, Rio Frio Salento, and Salencio, Colombia (crit.); Bangs, Bull. Mus. Comp. Zool., 70, p. 408 (in text), 1930—Cali (crit.); Berlioz, L'Oiseau, (n.s.), 3, p. 596, 1933—Cali and "Bogotá," Colombia (crit.).

*Ramphocelus chrysonotus* Lafresnaye, Rev. Mag. Zool., (2), 5, p. 246, 1853—based on *R. varians*, secunda varietas, Lafresnaye, Rev. Zool., 10, p. 216, 1847; Juntas [=Los Cisneros], western Andes, Colombia (type in coll. of T. B. Wilson, now in the Academy of Natural Sciences, Philadelphia cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 408 [in text], 1930); Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá," errore; idem, l.c., 24, p. 131, 1856—Juntas, Colombia (crit.); Sclater and Salvin, l.c., 1879, p. 501—Antioquia; Sclater, Cat. Bds. Brit. Mus., 11, p. 177, 1886—Antioquia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1061, 1138, 1912—part, Colombia (Juntas, Jiménez, Antioquia); Piguët, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Medellin, Antioquia; Chapman, Bull. Amer. Mus. N. H., 36, p. 610, 1917—Caldas, Las Lomitas, San Antonio, and vicinity of Medellin, Colombia (crit.); Berlioz, L'Oiseau, (n.s.), 3, p. 596, 1933—Antioquia (crit.).

*Ramphocelus aurinotus* (lapsus) Sclater, Tan. Cat. Spec., p. 9, 1854—Colombia

*Ramphocelus icteronotus* (not of Bonaparte) Lafresnaye, Rev. Zool., 9, p. 367, 1846—"Bolivia" or Colombia (descr. of "junior avis?"=adult female).

*Ramphocelus varians* tertia varietas, Lafresnaye, Rev. Zool., 10, p. 217, 1847—Cali, Colombia (crit.; descr. of male and female).

*Range*.—Tropical and lower Subtropical zone of western Colombia (Cauca Valley from Popayán north to Medellin).<sup>2</sup>

10: Colombia (Amalfi, Antioquia, 4; Cali, 3; Navara, 1; Rio Caquetá, Cauca, 2).

**\**Ramphocelus icteronotus* Bonaparte. YELLOW-RUMPED TANAGER.**

*R(h)amphocelus icteronotus* Bonaparte, Rev. Zool., 1, No. 1, p. 8, Jan. (after 31), 1838—"l'Amérique méridionale" (descr. of male; type in coll. of Duke of Rivoli, now probably in the Academy of Natural Sciences, Philadel-

<sup>1</sup> Evidently erroneous (cf. Todd and Carriker, Ann. Carnegie Mus., 14, p. 486, 1922).

<sup>2</sup> Two "Bogotá" skins suggest that the range of *R. flammigerus* probably extends into the Magdalena Valley.

phia);<sup>1</sup> idem, Proc. Zool. Soc. Lond., 5, "1837," p. 121, pub. June 14, 1838—no locality stated (spec. in coll. Paris Museum); Lafresnaye, Rev. Zool., 9, p. 365, 1846—Colombia or "Bolivia" (descr. of male and female); Sclater, Proc. Zool. Soc. Lond., 23, p. 157, 1855—"Bogotá"; idem, l.c., 24, p. 131, 1856—Colombia (Buenaventura, Chocó Bay) and western Ecuador (Guayaquil and western slope); idem, l.c., 27, p. 139, 1859—Pallatanga, Ecuador; idem, l.c., 28, pp. 65, 86, 274, 292, 1860—Pallatanga, Nanegal, Babahoyo, and Esmeraldas, Ecuador; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 141—Turbo, Rio Atrato, and Rio Truando, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Lion Hill, Panama; Sclater, Cat. Coll. Amer. Bds., p. 80, 1862—Nanegal, Ecuador; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Panama Railroad; Salvin, l.c., 1867, p. 139—Santiago de Veragua; Taczanowski, l.c., 1877, p. 332—Palmar (near Santa Rosa), El Oro, Ecuador; Sclater and Salvin, l.c., 1879, p. 501—Remedios and Neche, Colombia (nest and eggs descr.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 282, 1883—Veraguas (Santiago), Panama (Lion Hill, Paraiso), Colombia (Turbo, etc.), and Ecuador; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 546—Chimbo, Ecuador; idem, l.c., 1884, p. 290—Cayandeled and Pinampunga, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 177, 1886—Veraguas (Santiago), Panama (Paraiso, Lion Hill), Colombia (Chocó Bay, Sallango, Remedios, "Medellin," "Bogotá"), and Ecuador (Guayaquil, Pallatanga, Nanegal, Santa Rita); Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—"Quito" (errore), Ecuador; Robinson, Flying Trip to Tropics, p. 161, 1895—Puerto Berrio, Colombia; Hartert, Nov. Zool., 5, p. 482, 1898—Cachaví, Paramba, and Chimbo, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Gualea, Intag, Vinces, and Rio Peripa, Ecuador; Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 307—Ibagüe, Colombia; Bangs, Proc. New Engl. Zool. Cl., 2, p. 30, 1900—Loma del León, Panama; Goodfellow, Ibis, 1901, p. 468—Santo Domingo, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 113, 1902—Veragua to Ecuador and "central Peru" (errore); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Équat., 9, p. B. 103, 1911—Santo Domingo, Gualea, and San Nicolas, Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1112—Guineo, Nóvita, Noanamá, Sipi, San Joaquin, and Rio Cajón, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1061, 1912—"Chiriquí," Veragua, Panama, Colombia, and western Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 612, 1917—Alto Bonito, Dabeiba, Quibdó, Bagado, Nóvita Trail, Juntas de Tamaná, Nóvita, Noanamá, Buenaventura, San José, Gallera (5,700 feet), Cerro Munchique (6,000 feet), Tumaco, Barbacoas, Puerto Valdivia, La Frijolera, Barro Blanco, and west of Honda, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 278, 1918—Gatún, Panama (nest and

<sup>1</sup> Not listed in Stone's "A Study of the Type Specimens . . ." in Proc. Acad. Nat. Sci. Phila., 1899, pp. 5-62. At that time, however, Bonaparte's description in the Proc. Zool. Soc. Lond., 5, p. 121, was regarded as having been published first, and the type was naturally supposed to be in the Paris Museum. According to Ménégau (1911, p. 103), the latter specimen is from western Colombia. Berlepsch (1912, p. 1061) suggests "western Ecuador" as type locality for *R. icteronotus*.

eggs descr.); Lönnberg and Rendahl, *Ark. Zool.*, **14**, No. 25, p. 85, 1922—Gualea, Nanegal, and Mindo, Ecuador; Chapman, *Bull. Amer. Mus. N. H.*, **55**, p. 675, 1926—western Ecuador (many localities between Esmeraldas and Alamor); Griscom, *Bull. Mus. Comp. Zool.*, **69**, p. 189, 1929—El Real and Cana, Darien; Peters, l.c., **71**, p. 341, 1931—Cricamola, Almirante Bay, Panama; Griscom, l.c., **72**, p. 370, 1932—Permé, Panama; Berlioz, *Bull. Mus. Hist. Nat. Paris*, (n.s.), **4**, p. 235, 1932—Rio San Antonio, Ecuador; idem, *L'Oiseau*, (n.s.), **3**, p. 596, 1932—Panama to Ecuador (crit.).

*Ramphopis icteronotus* Du Bus, *Esq. Orn.*, Part 3, pl. 15 (male, female), 1847—Guayaquil, "Colombia."

*Ramphocelus varians* Lafresnaye, *Rev. Zool.*, **10**, p. 216, 1847—"in Andiiis Novae Granadae . . . loco St. Bonaventure"—Buenaventura, Chocó, Colombia (type now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, *Bull. Mus. Comp. Zool.*, **70**, p. 407, 1930).

*R(h)amphoc(o)elus inexpectatus* Rothschild, *Bull. Brit. Orn. Cl.*, **6**, p. xxxii, 1897—Panama (type in Tring Museum examined); Ridgway, *Bull. U. S. Nat. Mus.*, **50**, Part 2, p. 114, 1902—Panama (ex Rothschild); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1061, 1139, 1912—Panama (crit.).

*Range*.—Tropical zone of western Ecuador, western Colombia (extending east through Antioquia to the lower Cauca and to the Magdalena Valley), and Panama, as far west as Almirante Bay (Crimacola) and the Veraguas (Santiago; Rio Calovévora).<sup>1</sup>

19: Panama (Colón, 9; near Darien, 1; unspecified, 1); Colombia (Atrato River, 1; Dabeiba, Rio Sucio, Antioquia, 1; Juntas de Tamaná, Rio San Juan, Cauca, 1; Nóvita Trail, western Andes, Cauca, 1; Rio Guapi, 1); Ecuador (Milagro, Guayas, 1; Puente de Chimbo, 2).

<sup>1</sup> Adult males from the Canal Zone, while agreeing in size, have the rump rather darker (lemon chrome rather than lemon yellow) than those from Ecuador, though this variation is not quite constant. Birds from Pacific Colombia are variously intermediate, but the bulk seems to be nearer to the Ecuadorian ones.

*R. inexpectatus* Rothschild is merely an individual mutation of the present species, corresponding to the variety of *R. passerinii* described as *R. dunstalli*. In the type the upper throat only and an extensive area in the middle of the lower breast and abdomen are black, the rest of the under parts including the crissum being yellow like the rump (of a deeper, more saturated tone than in normally colored individuals of *icteronotus*). Another specimen, like the type of the typical Panama preparation, has merely a restricted patch in the middle of the abdomen blackish, and the yellow portions of the plumage just as pale as in ordinary *icteronotus*, while the axillaries as well as the under wing coverts are partly yellow. The type has apical edges of bright yellow to the feathers of the hind crown—another evidence for its abnormal coloration. Wing (males of *R. inexpectatus*), 83–84 mm.

According to Chapman (1917, pp. 610–612), *R. icteronotus* hybridizes with *R. flammigerus* in certain parts of Colombia, the result being the so-called *R. chrysonotus*. Not having seen any females of the latter "species," I am not in a position to throw any new light on this much discussed problem.

*Additional material examined*.—Panama (Lion Hill, Paraiso Station), 7.—Colombia: Guineo, 1; Nóvita, 4; Noanamá, 2; Sipi, 2; Rio Cajón, 2; San Joaquin, 3; Rio Guapi, 2; "Bogotá," 6.—Ecuador (Esmeraldas to Chimbo), 24.

Genus **PHLOGOTHRAUPIS** Sclater and Salvin

*Phlogothraupis* Sclater and Salvin, Nomencl. Av. Neotrop., pp. 21, 155, 1873—  
type, by orig. desig., *Tanagra (Tachyphonus) sanguinolentus* Lesson.

**\*Phlogothraupis sanguinolenta sanguinolenta** (Lesson).

## CRIMSON-COLLARED TANAGER.

*Tanagra (Tachyphonus) sanguinolentus* Lesson, Cent. Zool., p. 107, pl. 39, by  
March, 1831—Mexico (type in coll. of Florent Prévost).

*Ramphocelus sanguinolenta* Bonaparte, Consp. Gen. Av., 1, (1), p. 242, 1850—  
Mexico.

*Ramphocelus sanguinolentus* Sclater, Proc. Zool. Soc. Lond., 24, p. 132, 1856—  
Mexico (Valle Real, Córdoba), Guatemala (Coban), and Honduras  
("Camalacan" River, near Truxillo); idem, l.c., p. 303, 1856—Córdoba,  
Mexico; Moore, l.c., 27, p. 59, 1859—Omoa, Honduras, and Petén, Guate-  
mala; Sclater, l.c., pp. 364, 377, 1859—vicinity of Jalapa (Vera Cruz) and  
Playa Vicente (Oaxaca), Mexico; Sclater and Salvin, Ibis, 1859, p. 16—  
"Chamalican River," Honduras; Sclater, Cat. Coll. Amer. Bds., p. 80,  
1862—Honduras and Vera Cruz; Sumichrast, Mem. Bost. Soc. N. H., 1,  
p. 549, 1869—Vera Cruz, Mexico; Sclater and Salvin, Proc. Zool. Soc.  
Lond., 1870, p. 836—[San Pedro], Honduras.

*Phlogothraupis sanguinolenta* Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 43,  
1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1,  
p. 285, 1883—part, Vera Cruz, Mexico, to Honduras; Sclater, Cat. Bds.  
Brit. Mus., 11, p. 178, 1886—part, spec. a-h, Mexico to Honduras; Ridg-  
way, Proc. U. S. Nat. Mus., 10, p. 585, 1888—Segovia River, Honduras;  
idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 120, 1902—part, Mexico to  
Honduras; Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1903—Ceiba and  
Yaruca, Honduras; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin,  
p. 1061, 1912—Mexico to Honduras.

*Phlogothraupis sanguinolenta sanguinolenta* Peters, Auk, 30, p. 379, 1913—  
Xcopen and Camp Mengel, Quintana Roo, Mexico; Bangs and Peters,  
Bull. Mus. Comp. Zool., 67, p. 486, 1927—Presidio and Motzorongo,  
Vera Cruz; Peters, l.c., 69, p. 472, 1929—Progreso and Tela, Honduras;  
Griscom, Bull. Amer. Mus. N. H., 64, p. 378, 1932—Guatemala (Finca  
Chamá, Finca Sepacuite, Secanquim); Stone, Proc. Acad. Nat. Sci.  
Phila., 84, p. 338, 1932—Lancetilla, Honduras.

*Range.*—Tropical zone of southeastern Mexico, in states of Vera  
Cruz, Oaxaca, Tabasco, and Quintana Roo, and southwards through  
British Honduras and Guatemala to Honduras.<sup>1</sup>

4: Mexico (Teapa, Tabasco, 1); Guatemala (Alta Vera Paz, 1;  
unspecified, 2).

<sup>1</sup> Specimens from Honduras (San Pedro) agree in size with Mexican and  
Guatemalan birds.



**\*Phlogothraupis sanguinolenta aprica** Bangs.<sup>1</sup> LESSER CRIMSON-COLLARED TANAGER.

*Phlogothraupis sanguinolenta aprica* Bangs, Proc. New Engl. Zool. Cl., 4, p. 31, March 19, 1908—Carrillo, Costa Rica (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 409, 1930); Carriker, Ann. Carnegie Mus., 6, p. 849, 1910—Costa Rica (Guayábo, Jiménez, Reventazón, Carrillo, Cariblanco de Sarapiquí, El Hogar, Peralta); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1062, 1912—Nicaragua and Costa Rica; Peters, Bull. Mus. Comp. Zool., 71, p. 341, 1931—Almirante, Panama; Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 245, 1932—Eden, Nicaragua (nest and eggs descr.).

*Ramphocelus sanguinolentus* (not *Tanagra sanguinolentus* Lesson) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 278—Bluefields River, Nicaragua; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 99, 1868—Navárrro and Angostura, Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Ibis, 1872, p. 316—Chontales, Nicaragua.

*Phlogothraupis sanguinolenta* Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—Orósi, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 285, 1883—part, Nicaragua and Costa Rica; Nutting, Proc. U. S. Nat. Mus., 6, p. 400, 1883—Los Sábalos, Nicaragua; Sclater, Cat. Bds. Brit. Mus., 11, p. 178, 1886—part, spec. i-n, Nicaragua and Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 109, 1887—Cartago and Navárrro de Cartago, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 489, 1893—Rio Escondido, Nicaragua, and Rio Frio, Costa Rica (nest and eggs descr.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 120, 1902—part, Nicaragua and Costa Rica.

*Range*.—Tropical zone of Caribbean Nicaragua, Costa Rica, and extreme northwestern Panama (Almirante Bay region).

2: Nicaragua (Lake Nicaragua, 1); Costa Rica (Peralta, 1).

Genus **CALOCHAETES** Sclater

*Euchaetes* (not of Dejean, 1834, nor of Harris, 1841) Sclater, Proc. Zool. Soc. Lond., 26, p. 73, 1858—type, by monotypy, *Euchaetes coccineus* Sclater.

*Calochaetes* Sclater, Ibis, (4), 3, p. 388, 1879—new name for *Euchaetes* Sclater, preoccupied.

**Calochaetes coccineus** (Sclater). BLACK-THROATED SCARLET TANAGER.

*Euchaetes coccineus* (J. Verreaux MS.) Sclater, Proc. Zool. Soc. Lond., 26, p. 73, pl. 132, fig. 1, 1858—Rio Napo, Ecuador (type in coll. of J. and E.

<sup>1</sup> *Phlogothraupis sanguinolenta aprica* Bangs: Similar to the nominate race, but considerably smaller. Wing, 84–89, rarely 91, (female) 81–84; tail, 72–77, (female) 72–74; bill, 15–16.

Nine additional specimens from Costa Rica examined.

Verreaux, now in Vienna Museum, examined; cf. Pelzeln and Lorenz, *Ann. Naturhist. Hofmus. Wien*, 2, p. 346, 1887).<sup>1</sup>

*Calochaetes coccineus* Sclater, *Ibis*, 1879, p. 388—Ecuador; idem, *Cat. Bds. Brit. Mus.*, 11, p. 180, 1886—eastern Ecuador (Rio Napo and Chiquinda); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1062, 1912—eastern Ecuador; Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 613, 1917—eastern slope of eastern Andes below Andalucia, Colombia; idem, *l.c.*, 55, p. 676, 1926—lower Sumaco, Ecuador.

*Range*.—Subtropical zone of southeastern Colombia (eastern slope of eastern Andes below Andalucia) and eastern Ecuador (Rio Pastaza; Chiquinda; lower Sumaco; Rio Napo).<sup>2</sup>

### Genus PIRANGA Vieillot

*Piranga* Vieillot, *Hist. Nat. Ois. Amér. Sept.*, 1, p. iv, 1807—type, by monotypy, *Muscicapa rubra* Linnaeus, 1776=*Fringilla rubra* Linnaeus, 1758.

*Pyrranga* Vieillot, *Analyse Nouv. Ornith. Élém.*, p. 32, 1816 (emendation).

*Cardinalis* Jarocki, *Zool.*, 1, p. 133, 1821—type, by monotypy, *Tanagra rubra* Linnaeus (cf. Mathews and Tredale, *Austr. Av. Rec.*, 3, p. 144, 1918).

*Spermagra* Swainson, *Phil. Mag.*, (n.s.), 1, p. 437, June, 1827—type, by monotypy, *Spermagra erythrocephala* Swainson.

*Phoenisoma* Swainson, *Nat. Hist. & Classif. Bds.*, 2, p. 284, 1837—new name for *Pyrranga* Vieillot.

*Phoenicosoma* Cabanis, in Schomburgk, *Reisen Brit. Guiana*, 3, p. 668, "1848" [=1849]—new name for *Phoenisoma* Swainson.

*Diplochilus* Bertoni, *Anal. Cient. Parag.*, 1, No. 1, p. 88, 1901—type, by monotypy, *Diplochilus xanthochlorus* Bertoni=*Saltator flavus* Vieillot.

### \**Piranga rubra rubra* (Linnaeus). SUMMER TANAGER.

*Fringilla rubra* Linnaeus, *Syst. Nat.*, 10th ed., 1, p. 181, 1758—based on "The Summer Red-Bird" Catesby, *Nat. Hist. Carolina*, 1, p. 56, pl. 56; "Carolina and Virginia"=South Carolina.

*Tanagra misisippica* Hermann, *Tab. Aff. Anim.*, p. 214, 1783—based on "Tangara, du Mississippi" Daubenton, *Pl. Enl.*, pl. 741.

*Tanagra coccinea* Boddaert, *Tabl. Pl. Enl.*, p. 46, Dec., 1783—based on "Tangara, du Mississippi" Daubenton, *Pl. Enl.*, pl. 741.

*Loxia virginica* Gmelin, *Syst. Nat.*, 1, (2), p. 849, 1789—based on "Yellow-bellied Grosbeak" Pennant, *Arct. Zool.*, 2, p. 351; Virginia (=male in transitional plumage).

<sup>1</sup> In Brown Goode's "Published Writings of Philip Lutley Sclater" (*Bull. U. S. Nat. Mus.*, 49, p. 88, 1896), the type is erroneously credited to the Sclater Collection in the British Museum. However, it never belonged to this gentleman, as may be seen from a reference to his "Catalogue of a Collection of American Birds" and his subsequent remarks in "The Ibis" for 1879 (p. 388). The specimen was purchased by the Vienna Museum in 1862 from Jules Verreaux, in whose handwriting it is marked as "type."

<sup>2</sup> *Material examined*.—Ecuador: Rio Napo, 1 (type); El Rosario, Rio Pastaza, 1; unspecified, 3.

- Tanagra mississippiensis* Gmelin, Syst. Nat., 1, (2), p. 889, 1789—mainly based on “Tangara, du Mississippi” Daubenton, Pl. Enl., pl. 741.
- Tanagra aestiva* Gmelin, Syst. Nat., 1, (2), p. 889, 1789—based on “The Summer Red-Bird” Catesby, Nat. Hist. Carolina, 1, p. 56, pl. 56.
- Tanagra variegata* Latham, Ind. Orn., 1, p. 421, 1790—based on *Tanagra mississippiensis* Gmelin, *Loxia virginica* Gmelin, and “Variegated Tanager” Latham (Gen. Syn. Bds., 2, [1], p. 219, pl. 46).
- Pyrranga livida* Swainson, Phil. Mag., (n.s.), 1, p. 438, 1827—Real del Monte, Hidalgo, Mexico (type in coll. of W. Bullock, present location unknown).
- Pyrranga aestiva* Taczanowski, Orn. Pér., 2, p. 494, 1884—Tambillo, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 182, 1886 (monog.); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Ecuador (Pun, Rio Peripa).
- Pyrranga rubra* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1062, 1912 (range).
- Pyrranga rubra* Berlepsch and Stolzmann, Ornith., 13, p. 81, 1906—Idma, Urubamba, Peru; Chubb, Bds. Brit. Guiana, 2, p. 522, 1921—Roraima, British Guiana.
- Pyrranga rubra rubra* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 79, 1902 (monog.); Hellmayr, Nov. Zool., 13, p. 16, 1906—Laventille, Trinidad; idem, l.c., 17, p. 275, 1910—Allianca, Rio Madeira, Brazil; Chapman, Bull. Amer. Mus. N. H., 36, p. 613, 1917—Colombia (many localities); Todd and Carriker, Ann. Carnegie Mus., 14, p. 489, 1922—Bonda, Las Nubes, Cincinnati, Don Diego, Dibulla, Pueblo Viejo, and Chirua, Colombia; Barbour, Mem. Nutt. Orn. Cl., 6, p. 127, 1923—Cuba (transient); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 188, 1924—Loma Redonda and Galipán, Venezuela; Chapman, Bull. Amer. Mus. N. H., 55, p. 676, 1926—Ecuador (western and eastern side); Griscom, l.c., 64, p. 378, 1932—Guatemala; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 449, 1930—Peru (Chinchao, Huachipa, Rio Colorado); Grinnell, Univ. Calif. Pub. Zool., 32, p. 187, 1928—Lower California (vagrant).

*Range.*—United States from Nebraska, Iowa, Wisconsin, Indiana, Ohio, Maryland, and Delaware south to northeastern Mexico and southern Florida; winters from central Mexico and Yucatan to Ecuador, Peru, Bolivia (San Antonio, Yungas of La Paz), Brazil (Allianca, Rio Madeira), Venezuela, Trinidad, and Guiana (Roraima); casual in the northeastern United States, California, and Lower California.

72: Illinois (Grand Chain, 3); Missouri (St. Louis County, 1); Arkansas (Winslow, 1); Texas (Fort Worth, 4; Ingram, 3; Kerrville, 1); Tennessee (Nashville, 2); Mississippi (Holly Springs, 3; Vicksburg, 5); Alabama (Elmore County, 1); North Carolina (Raleigh, 5); Florida (Gainesville, 2; Jacksonville, 1; Key West, 2; Nassau County, 1; West Jupiter, 1); Mexico (Mexico City, 1; Pueblo Viejo, Vera Cruz, 1; Tampico, 1; Teapa, 1); Guatemala

(Gualan, 3; Lake Atitlan, 1; Patulul, Sololá, 2; San José, 1); Nicaragua (San Rafael, 1); Costa Rica (Coliblanco, 3; Guayábo, 5; Port Limón, 5); Panama (Colón, 1; unspecified, 1); Colombia (Boquerón, 1); Venezuela (Caracas, 1; Colón, Táchira, 1; unspecified, 1); Peru (Chinchao, 3; Huachipa, 1; Rio Colorado, Chanchamayo, 1).

\**Piranga rubra cooperi* (Ridgway). COOPER'S TANAGER.

*Piranga cooperi* Ridgway, Proc. Acad. Nat. Sci. Phila., 21, p. 130, July, 1869—Los Piños, New Mexico (types in U. S. National Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 184, 1886—western Mexico (Presidio).

*Piranga rubra cooperi* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 83, 1902 (monog.); Miller, Bull. Amer. Mus. N. H., 21, p. 365, 1905—Escuinapa, Sinaloa; idem, l.c., 22, p. 175, 1906—Rio Sestin, Durango; Grinnell, Univ. Calif. Pub. Zool., 32, p. 188, 1928—Lower California (northern portion of Colorado Delta, breeding); van Rossem, Trans. San Diego Soc. N. H., 6, p. 291, 1932—Sonora (Saric, Guirocoba).

*Piranga rubra cooperi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1063, 1912 (range).

*Range*.—Southeastern California, northeastern Lower California (northern portion of Colorado Delta), southern Nevada, Arizona, and New Mexico south to Nuevo León and northern Durango; winters in Mexico south to Guerrero and Morelos; casual in Colorado.

21: Arizona (Calabasas, 14; Fairbank, 1; Tucson, 2); California (Baird, 1); Mexico (Igualá, Guerrero, 3).

\**Piranga flava flava* (Vieillot). AZARA'S RED TANAGER.

*Saltator flavus* Vieillot, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 790, 1822—based on "Habia amarilla" Azara, No. 87; Paraguay (descr. of female).

*Saltator ruber* (not *Fringilla rubra* Linnaeus) Vieillot, Tabl. Enc. Méth., Orn., 2, livr. 91, p. 792, 1822—based on "Habia punzo" Azara, No. 88; Paraguay (descr. of male).

*Piranga azarae* d'Orbigny, Voy. Amér. Mérid., Ois., p. 264, 1839—new name for *Saltator ruber* Vieillot and *Saltator flavus* Vieillot; hab. part, Buenos Aires and Valle Grande (Bolivia); Hartlaub, Index Azara, p. 6, 1847—Paraguay (nomencl.); Ridgway, Proc. Acad. Nat. Sci. Phila., 1869, p. 132—Paraguay (Capt. Page); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 601—part, Cinti and Valle Grande, Bolivia; Salvin, Ibis, 1880, p. 353—Tucumán; White, Proc. Zool. Soc. Lond., 1883, p. 37—Cosquin, Córdoba; Sclater, Cat. Bds. Brit. Mus., 11, p. 186, 1886—Uruguay, Argentina (Córdoba, Salta, Tucumán), and Bolivia (Cinti); Withington, Ibis, 1888, p. 462—Lomas de Zamora, Buenos Aires; Stempelmann and Schulz, Bol. Acad. Nac. Cienc. Córdoba, 10, p. 399, 1890—Córdoba; Frenzel, Journ. Orn., 39, p. 119, 1891—Córdoba; Kerr, Ibis, 1892, p. 124—Fortín Page, lower Pilcomayo; Holmberg, Seg. Censo Rep. Arg., 1, (6), p. 543, 1895—Argentina; Salvadori, Boll. Mus. Zool. Torino,



- 10, No. 208, p. 4, 1895—Colonia Risso, Paraguay; idem, l.c., 12, No. 292, p. 6, 1897—Argentina (San Francisco and San Lorenzo, Jujuy; Tala, Salta) and Bolivia (Aguairenda); Bertoni, *Revist. Agron. Parag.*, 1, p. 531, 1898—Paraguay (habits, nest and eggs); Grant, *Ibis*, 1911, p. 94—Colonia Mihanovitch and Santa Elena, Argentina; Hartert and Venturi, *Nov. Zool.*, 16, p. 171, 1909—Tapia and Tucumán.
- Tanagra azarae* Doering, *Period. Zool. Arg.*, 1, p. 254, 1874—Rio Guayquiraro, Corrientes.
- Pyrranga hepatica* var. *azarae* Ridgway, in Baird, Brewer, and Ridgway, *Hist. N. Amer. Bds.*, 1, p. 434, 1874—Paraguay.
- Pyrranga coccinea* (not *Tanagra coccinea* Boddaert) Burmeister, *Journ. Orn.*, 8, p. 253, 1860—Paraná; idem, *Reise La Plata St.*, 2, p. 479, 1861—Paraná and "Banda Oriental" [= Uruguay].
- Pyrranga saira* (not *Tanagra saira* Spix) Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 124, 1856—part, Paraguay, Buenos Aires, and Bolivia; Barrows, *Bull. Nutt. Orn. Cl.*, 8, p. 91, 1883—Concepción del Uruguay, Entre Ríos.
- Pyrranga flava* Koslowsky, *Rev. Mus. La Plata*, 6, p. 278, 1895—Chilecito, La Rioja (plumages); Lillo, *Anal. Mus. Nac. Buenos Aires*, 8, p. 175, 1902—Tucumán; Baer, *Ornis*, 12, p. 215, 1904—Santa Ana, Tucumán; Bruch, *Rev. Mus. La Plata*, 11, p. 257, 1904—Orán, Salta; Lillo, *Rev. Letr. Cienc. Soc. Tucumán*, 3, No. 13, p. 41, 1905—Tucumán; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1063, 1912—Paraguay, Uruguay, Argentina, and Bolivia (Cinti, Samaipata, Olgin, San José, Misque; excl. Chiquitos); Giacomelli, *El Hornero*, 3, p. 68, 1923—La Rioja; Pereyra, l.c., 4, p. 27, 1927—Isla del Rio Luján, north of Escobar, Buenos Aires.
- Piranga flava* Koslowsky, *Rev. Mus. La Plata*, 6, p. 290, 1895—Catamarca; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, p. 376, 1910—Argentina; Bertoni, *Faun. Parag.*, p. 62, 1914—Misiones and southern Paraguay; Reed, *Av. Prov. Mendoza*, p. 42, 1916—Mendoza oriental (errore); Bertoni, *El Hornero*, 1, p. 190, 1918—Misiones (nest descr.); Tremoleras, l.c., 2, p. 23, 1920—Uruguay (Rio Negro, Paysandú, Salto); Serié and Smyth, l.c., 3, p. 53, 1923—Santa Elena, Entre Ríos; Pereyra, l.c., p. 174, 1923—San Isidro, Buenos Aires; Hellmayr, *Nov. Zool.*, 30, p. 241, 1923—part, spec. No. 1, Buenos Aires (crit.); Wetmore, *Bull. U. S. Nat. Mus.*, 133, p. 392, 1926—Argentina (Resistencia, Las Palmas, Riacho Pilaga, Formosa, and Tapia) and Paraguay (Puerto Pinasco) (habits, plumages).
- Piranga testacea* (not of Sclater and Salvin) Lönnberg, *Ibis*, 1903, p. 471—Colonia Crévaux, Bolivia.
- Piranga flava flava* Zimmer, *Field Mus., Zool. Ser.*, 17, p. 177, 1929 (monog.).
- Diplochilus xanthochlorus* Bertoni, *Anal. Cient. Parag.*, 1, No. 1, p. 88, Jan., 1901—Puerto Bertoni, Paraguay (type in coll. of A. de W. Bertoni).
- Range.*—Uruguay; Paraguay; Argentina, south to Buenos Aires, Córdoba, and La Rioja;<sup>1</sup> Bolivia, to Sierra de Cochabamba.<sup>2</sup>

<sup>1</sup> Reed's record from Mendoza is due to an erroneous translation of Burmeister's statement regarding its distribution in Argentina.

<sup>2</sup> Birds from Cochabamba (San José, Mizque; Olguin), southern Santa Cruz, and Chuquisaca (Sucre, Cinti) are precisely similar to others from Argentina. Characteristic of the adult male of this form is the dark, dull red (ocher red to

5: Argentina, Tucumán (Vipos, 1; Concepción, 4).

*Piranga flava rosacea* Todd.<sup>1</sup> CHIQUITOS RED TANAGER.

*Piranga saira rosacea* Todd, Proc. Biol. Soc. Wash., 35, p. 92, July 12, 1922  
—Palmarito, Rio San Julian, Chiquitos, eastern Bolivia (type in Carnegie  
Museum examined).

*Piranga flava rosacea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 181,  
1929—northeastern Bolivia (monog.).

*Piranga mississippiensis* (not *Tanagra mississippiensis* Gmelin) Lafresnaye  
and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 33, 1837—Chi-  
quitos, Bolivia (spec. in Paris Museum examined).

*Piranga azarae* d'Orbigny, Voy. Amér. Mérid., Ois., p. 264, 1839—part,  
Chiquitos, Bolivia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879,  
p. 601—part, Chiquitos.

*Piranga saira* (not *Tanagra saira* Spix) Sclater, Proc. Zool. Soc. Lond., 24,  
p. 124, 1856—part, Bolivia (in part).

*Piranga flava* (not *Sallator flavus* Vieillot) Berlepsch, Verh. 5th Intern. Orn.  
Kongr. Berlin, p. 1063, 1912—part, Chiquitos.

*Piranga flava* Hellmayr, Nov. Zool., 30, p. 241, 1923—part, spec. Nos. 2-4,  
Chiquitos, Bolivia (crit.).

brick red) coloration of the upper parts, in fresh plumage half concealed by broad, pale gray apical margins. On the pileum and above the eyes, the red passes into a much brighter and lighter (coral red) tone, the grayish edges being either absent or but faintly suggested on the hindcrown. The under surface is decidedly pink, corresponding to Ridgway's peach red or somewhat deeper, in opposition to the scarlet hue which prevails in *rosacea* and *saira*. The females are recognizable by the markedly grayish, less yellowish green upper parts, and duller, more greenish breast and sides. After once more investigating the case, I now agree with Mr. Zimmer's contention that *P. azarae* d'Orbigny is merely a new name for Azara's "Habia amarilla" and "Habia punzo," and that the designation of a "type" from Chiquitos was unjustified.

*Additional material examined.*—Bolivia; San José, Mizque, 2 (males); Olguin, Cochabamba, 2 (male, female); Pampas de Taperas (twenty leagues south of Santa Cruz), 1 (male); Guanacos (south of Santa Cruz), Prov. Cordillera, 3 (males); Sucre, 1 (female); Cinti, Chuquisaca, 2.—Argentina: San Lorenzo, Jujuy, 1; Tala, Salta, 2; Rio Vermejo, Salta, 4; Embarcación, Dept. Orán, Salta, 2; Metan, Salta, 1; Vipos, Tucumán, 8; Tapia, Tucumán, 1; Cosquin, Córdoba, 4; Rio de Oro, Chaco Austral, 1; Buenos Aires, 1; Lomas de Zamora, Buenos Aires, 1.

<sup>1</sup> *Piranga flava rosacea* Todd: Nearest to *P. f. saira*, but under parts in adult males lighter, varying from salmon orange to flame scarlet, and dorsal feathers with traces of grayish edges; females distinguishable only by slightly more grayish upper surface. Wing, 92-98, (female) 91-94; tail, 70-80, (female) 73-80; bill, 16-18.

This form is truly intermediate to *P. f. flava*, from which it differs by having the upper parts much less margined with grayish, and in the male sex by orange to scarlet (not pink) under surface. While the coloration of the lower parts in the males is exceedingly variable, no two of the nine specimens examined showing the same tone, I fully agree with Mr. Zimmer that the inhabitants of eastern Bolivia should all be referred to one and the same race forming the passage from *saira* to *flava*.

*Material examined.*—Bolivia: Palmarito, Rio San Julian, Chiquitos, 7 (including the type); Rio Quiser, Velasco, North Chiquitos, 6; Chiquitos (d'Orbigny), 4; Ipias, Chiquitos, 2; Tunama, Chiquitos, 1.

*Piranga flava azarae* Hellmayr, Nov. Zool., 30, p. 241 (in text), 1923—Chiquitos; Laubmann, Wissens. Erg. Deuts. Gran Chaco Exp., Vögel, p. 272, 1930—Ipias and Tunama, Chiquitos, Bolivia (crit.).

*Range*.—Eastern Bolivia, from Santa Cruz to the neighborhood of the Brazilian boundary (Chiquitos district).

\**Piranga flava saira* (Spix). SAIRA Tanager.

*Tanagra mississippiensis* (not of Gmelin) Lichtenstein, Verz. Doubl. Berliner Mus., p. 30, 1823—São Paulo (descr. of male and female); Wied, Beitr. Naturg. Bras., 3, (1), p. 521, 1830—Valo, Minas Geraes.

*Tanagra saira* Spix, Av. Spec. Nov. Bras., 2, p. 35, pl. 48, fig. 1 ("mas"=female), 1825—no locality indicated, hab. subst. Caxias, Piauhy, auct. Hellmayr, 1929 (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 670, 1906).

*Phoenicosoma azarae* (not *Pyranga azarae* d'Orbigny) Cabanis, Mus. Hein., 1, p. 25, 1850—Brazil.

*Pyranga saira* Sclater, Proc. Zool. Soc. Lond., 24, p. 124, 1856—part, Brazil ("Rio," Bahia, Minas [Geraes], and São Paulo); idem, Cat. Coll. Amer. Bds., p. 80, 1862—part, spec. a-c, "Rio"; Ridgway, Proc. Acad. Nat. Sci. Phila., 1869, p. 131—Brazil (descr.); Pelzeln, Orn. Bras., 3, p. 211, 1870—São Paulo (Ypanema, Itararé, Paraná), Paraná (Campo Pantoso, Jaguaraíba, Porcos de Riva, Curytiba, Pitangui), Goyáz (José Dias, Goyáz, Ponte Alta), and Matto Grosso (Cuyabá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 429—Minas Geraes (Barbacena, Lagõa Santa, Sete Lagõas, Curvelo) and São Paulo (Campinas, Rio Grande de Paraná); Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 120, 1885—Linha Pirajá, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 185, 1886—Brazil (Bahia; Pelotas, Rio Grande do Sul; "Rio"); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Mundo Novo and Pelotas; idem, Rev. Mus. Paul., 3, p. 151, 1899—São Paulo; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 13, p. 186, 1905—Caminho do Couto, Serra do Itatiaya; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 85, 1910—Piauhy (Santo Antonio de Gilboez, Bandeira, Santa Maria, Fazenda Riachoelo, Santa Philomena); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1063, 1139, 1912—Monte Alegre to Matto Grosso and Rio Grande do Sul (crit.); Snethlage, Journ. Orn., 61, p. 520, 1913—Serra de Ereré and Monte Alegre; idem, Bol. Mus. Goeldi, 8, p. 449, 1914—Monte Alegre, Serra de Ereré, and Maranhão; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 185, 1925—Piauhy (Bandeira, Riachoela); H. Snethlage, Journ. Orn., 76, p. 535, 1928—Brazil (ecol.).

*Pyranga coccinea* (not *Tanagra coccinea* Boddaert) Burmeister, Syst. Uebers. Th. Bras., 3, p. 171, 1856—Minas Geraes.

*Piranga saira* Allen, Bull. Amer. Mus. N. H., 3, p. 357, 1891—Chapada, Matto Grosso (plumages, molt, etc.); Ihering, Cat. Faun. Braz., 1, p. 359, 1907—São Paulo (Batataes, Campos de Jordão, Franca, Itararé) and Matto Grosso (Porto da Faya); Hellmayr, Nov. Zool., 15, p. 29,

1908—Goyáz; Chrostowski, Compt. Rend. Soc. Sci. Varsovie, 5, pp. 487, 499, 1912—Vera Guarany, Paraná; Hellmayr, Nov. Zool., 30, p. 241 (in text), 1923—part, Brazil (Minas to Monte Alegre); Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Retiro de Ramos, Serra do Itatiaya.

*Piranga saira saira* Holt, Bull. Amer. Mus. N. H., 57, pp. 262, 321, 1928—Serra do Itatiaya.

*Piranga flava saira* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 282, 1929—Maranhão (Codó, Cocos; Tranqueira; Fazenda Inhuma, Alto Parnahyba) and Goyáz (Philadelphia); Zimmer, l.c., 17, p. 184, 1929 (monog.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 375, 1930—Belvedere de Urucúm, Matto Grosso.

*Range*.—Campos region of Brazil, from the lower Amazon (Monte Alegre and Serra de Ereré, north bank; Santarem) south to Matto Grosso and Rio Grande do Sul.<sup>1</sup>

9: Brazil (Santarem, 1; Codó, Cocos, Maranhão, 2; Tranqueira, Maranhão, 1; Fazenda Inhuma, Alto Parnahyba, Maranhão, 2; São Marcello, Rio Preto, Bahia, 1; Philadelphia, Goyáz, 1; Rio Nova Roma, Goyáz, 1).

\**Piranga flava macconnelli* Chubb.<sup>2</sup> MCCONNELL'S TANAGER.

*Piranga saira macconnelli* Chubb, Ann. Mag. Nat. Hist., (9), 8, p. 446, Oct., 1921—upper Takutu Mountains, British Guiana (type in coll. of F. C. McConnell, now in British Museum, examined); idem, Bds. Brit. Guiana, 2, p. 524, pl. 9 (male, female), 1921—upper Takutu Mountains and Quonga.

<sup>1</sup> Birds from Matto Grosso, São Paulo, and Paraná agree well with a series from Maranhão and Piahy, and allowing the usual amount of individual variation, I am unable to substantiate the local differences noticed by the late Count Berlepsch. A single adult male from Rio Grande do Sul (Pelotas) in the Paris Museum is by no means larger (wing, 99; tail, 77) than various northern examples, and in coloration, especially in lacking all trace of grayish edges above, it is thoroughly typical, betraying no approach to *flava*. The largest specimen I have seen is a male from Ytararé, São Paulo, with the wing measuring fully 104 mm. A couple of adults from the north bank of the lower Amazon seem inseparable from tableland birds, and until an adequate series proves otherwise, they may be referred to *saira* rather than *macconnelli*.

*Additional material examined*.—Pará: Serra de Ereré, 1 (male); Monte Alegre, 1 (female).—Piahy: Santo Antonio de Gilboez, 1; Bandeira, 1; Fazenda Riachuelo, 1; Santa Maria, 2; Santa Philomena, 1.—Bahia, 2.—Minas Geraes: Agua Suja, near Bagagem, 3.—São Paulo: Ytararé, 3.—Paraná: Jaguaraiha, 1; Curitiba, 2.—Goyáz: Goyáz City, 12; José Dias, 1.—Matto Grosso: Chapada, 10.—Rio Grande do Sul: Pelotas, 1 (male).

<sup>2</sup> *Piranga flava macconnelli* Chubb: Exceedingly close to *P. f. saira*, but perhaps separable by average lighter coloration of the upper parts in the male sex. Wing, 94–98, (female) 89–94; tail, 77–84, (female) 75–79; bill, 17–18½.

This is a very unsatisfactory race, as has been pointed out by Zimmer, and with the larger series now available I find it very hard to maintain its distinction.

*Additional material examined*.—British Guiana: upper Takutu Mountains, 1 (male, the type); Quonga, 6; Annai, 2.



*Piranga flava macconnelli* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 283, 1929—British Guiana (Quonga, Annai) and Serra da Lua, upper Rio Branco (crit.); Zimmer, l.c., 17, p. 189, 1929 (monog.).

*Piranga saira* (not *Tanagra saira* Spix) Hellmayr, Nov. Zool., 30, p. 241, (in text), 1923—part, British Guiana.

(?) *Piranga azarae* (*Fanagra saira?*) [sic] Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 31, 1857—Cayenne (coll. Deplanches).

(?) *Piranga saira* Berlepsch, Nov. Zool., 15, p. 116, 1908—Cayenne (ex Bonaparte).

*Range*.—Savanna country of southern British Guiana (Quonga; Annai; upper Takutu Mountains) and the adjacent districts of extreme northern Brazil (Bõa Vista and Serra da Lua, upper Rio Branco); possibly also in Dutch and French Guiana.

6: British Guiana (Quonga, 1); Brazil (Bõa Vista, Rio Branco, 3; Serra da Lua, near Bõa Vista, 2).

**\**Piranga flava faceta* Bangs.<sup>1</sup> CARIBBEAN RED TANAGER.**

*Piranga faceta* Bangs, Proc. Biol. Soc. Wash., 12, p. 141, 1898—Santa Marta region (alt. 3,000 feet), Colombia (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 409, 1930); idem, l.c., 13, p. 104, 1899—La Concepción and San Miguel, Santa Marta region; Allen, Bull. Amer. Mus. N. H., 13, p. 121, 1900 (ex Bangs).

*Piranga saira* (not *Tanagra saira* Spix) Selater, Cat. Coll. Amer. Bds., p. 80, 1862—part, spec. d, Trinidad.

*Phoenicosoma saira* Heine and Reichenow, Nomencl. Mus. Hein., p. 17, 1890—part, Caracas.

*Piranga hepatica* (not of Swainson) Léotaud, Ois. Trinidad, p. 291, 1866—Trinidad.

*Piranga haemalea* (not of Salvin and Godman) Selater, Cat. Bds. Brit. Mus., 11, p. 185, 1886—part, Venezuela and Trinidad (spec. f-h).

*Piranga haemalea* Chapman, Bull. Amer. Mus. N. H., 7, p. 323, 1895—Caura, Trinidad; Phelps, Auk, 14, p. 364, 1897—San Antonio [Monagas],

<sup>1</sup> *Piranga flava faceta* Bangs: Nearest to *P. f. macconnelli*, but coloration of adult males darker with more of an orange tone, especially on the under parts, which are between scarlet and Brazil red; upper surface likewise darker, near Kaiser brown, with the color of the pileum less strongly differentiated from that of the back; female on average paler, particularly below. Wing, 85-91, (female) 83-90; tail, 75-80, (female) 69-79; bill, 17.5-19.

Birds from Trinidad and Venezuela agree well with Santa Marta specimens, and a single female from San Cristóbal, Tachira, does not materially differ, though its bill is slightly larger than in most of the others.

*Additional material examined*.—Colombia: Santa Marta region, 8.—Venezuela: San Cristóbal, Tachira, 1; Galipán, Cerro del Avila, 17; Loma Redonda, near Caracas, 3; Río Maméra, near Caracas, 1; vicinity of Puerto Cabello, Carabobo, 1; Campos Alegre Valley, Sucre, 8; Quebrada Secca, Sucre, 2; Los Palmales, Sucre, 3; La Tigrera, Sucre, 1.—Trinidad: Cave Mountains, Aripo (alt. 1,800 to 2,000 feet), 5.

Venezuela; Allen, Bull. Amer. Mus. N. H., 13, p. 168, 1900—Bonda, Onaca, Minca, Cacagualito, and Masinga Vieja, Santa Marta region.

*Piranga testacea faceta* Hellmayr, Nov. Zool., 13, p. 57, 1906—Trinidad (ex Léotaud, crit.); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1064, 1912—part, Santa Marta, Venezuela ("Cumaná"), and Trinidad; Todd and Carriker, Ann. Carnegie Mus., 14, p. 488, 1922—Minca, Cincinnati, and La Vegas, Santa Marta region (crit., habits, nest and eggs); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 188, 1924—Venezuela (Galipán, Loma Redonda, and Rio Maméra, Caracas region; Campo Alegre, Quebrada Secca, and Los Palmales, Bermúdez) and Trinidad (Aripo Mountains) (crit.).

*Piranga flava faceta* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 197, 1929—northern Colombia to Trinidad (monog.).

*Range.*—Northern Colombia (Santa Marta region) and across northern Venezuela to Trinidad (Aripo Mountains and Caura) and south to Tachira (San Cristóbal).

4: Venezuela (Maracay, Aragua, 1; Caracas, 2; Galipán, Cerro del Avila, 1).

### *Piranga flava haemalea* (Salvin and Godman).<sup>1</sup> RORAIMA RED TANAGER.

*Piranga haemalea* Salvin and Godman, Ibis, (5), 1, p. 205, 1883—Roraima, British Guiana (type in Salvin-Godman Collection, now in British Museum, examined); Salvin, Ibis, 1885, p. 211—Roraima; Sclater, Cat.

<sup>1</sup>*Piranga flava haemalea* (Salvin and Godman): Very similar to *P. f. desidiosa*, but adult male more deeply colored; the upper parts garnet brown rather than Morocco red, the lower ones more purely red (nopal red rather than Brazil red) with the throat paler, scarlet to Rose Dorée; female separable only by having the throat brighter, approaching primuline yellow. Wing, 96–98, (female) 91–95; tail, 78–80, (female) 74–78; bill, 18–19.

This form has no resemblance to its geographical neighbor *P. f. macconnelli*, which, in the male sex, is much lighter colored with the under parts scarlet to grenadine red, and the dorsal surface much paler, while the female differs at a glance by its bright yellowish green upper plumage passing into yellowish on the forehead, and light pure yellow ventral parts with but little greenish shading on the flanks. Compared to *P. f. testacea*, the differences that distinguish *haemalea* from *desidiosa* are even more pronounced in the male sex, the Veragua form being underneath still duller and more obscured than its Colombian representative. There is no distinct pale eye-rim, but just a few pale red plumules on the lower eyelid, exactly as in *desidiosa*. The top of the head, in the Roraima males, is the same shade as the back, the forehead by no means lighter; the auriculars are uniform deep garnet brown like the crown, the anterior cheeks slightly speckled with whitish; the chest is duskier than the middle of the breast, the throat very much lighter and brighter than the pileum. In addition to the Roraima series, the British Museum has a molting adult male (Nov. 7, 1887) and a female (Oct. 31, 1887) from Quonga, where the same collector (H. W. Whitely, Jr.) also obtained a number of specimens of *P. f. macconnelli*. They agree in every detail with the types of *P. haemalea*, showing no approach whatever to the other form (*macconnelli*), and were probably stragglers from their usual haunts on the slopes of Roraima.

*Material examined.*—British Guiana: Roraima, 10; Quonga, 2.

- Bds. Brit. Mus., 11, p. 185, 1886—part, spec. a-e, Roraima, Guiana; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1064, 1912—Roraima.
- Piranga haemalea* Chubb, Bds. Brit. Guiana, 2, p. 523, 1921—Roraima.
- Piranga testacea haemalea* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 190 (in text), 1924—British Guiana (crit.).
- Piranga flava haemalea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 201, 1929—British Guiana (monog.); Chapman, Bull. Amer. Mus. N. H., 63, p. 131, 1931—Agüita, Mount Duida, Venezuela.
- Phoenicosoma azarae* (not *Pyranga azarae* d'Orbigny) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 668, 1848 [= 1849]—Pacaraima Mountains, British Guiana.<sup>1</sup>

*Range*.—Subtropical zone of British Guiana (Pacaraima Mountains, near passage of Cotinga River; Mount Roraima) and southern Venezuela (Mount Duida).

***Piranga flava desidiosa* Bangs and Noble.<sup>2</sup> COLOMBIAN RED TANAGER.**

- Piranga testacea desidiosa* Bangs and Noble, Auk, 35, p. 461, 1918—La Maria, Dagua River, western Andes, Colombia (type in Museum of Comparative Zoology, Cambridge, Mass., examined); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 190 (in text), 1924—western Colombia (crit.).
- Pyranga testacea* (not of Sclater and Salvin, 1868) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 502—Concordia and Medellín, Antioquia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 292, 1883—part, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 184, 1886—part, spec. g-j, Concordia, Colombia.
- Piranga testacea testacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 86, 1902—part, Colombia ("Bogotá"); Chapman, Bull. Amer. Mus. N. H., 36, p. 613, 1917—part, Colombia (San Antonio, Cocal, Popayán, La Sierra).
- Pyranga testacea faceta* (not of Bangs) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1164, 1912—part, Antioquia and "Bogotá," Colombia.

<sup>1</sup> Although this specimen is no longer in the Berlin Museum, its pertinence to the present form seems hardly in doubt considering the locality.

<sup>2</sup> *Piranga flava desidiosa* Bangs and Noble: Very similar to *P. f. lutea*, but adult male somewhat deeper red; auriculars not streaked with whitish; no conspicuous red eye-rim or supraloral streak; female with back rather darker, more olivaceous green. Wing, 92-98, (female) 86-94; tail, 71-78, (female) 71-74; bill, 18-19.

Though slight, the differences from *P. f. lutea* apparently hold in a good series from various parts of Colombia. Males from La Sierra and Popayán verge somewhat toward the Ecuadorian race, but seem best referred here. A single male from "Bogotá" compares well with Antioquia specimens. *P. f. desidiosa*, up to the present, has been definitely recorded only from the western Andes, but its occurrence in native "Bogotá" collections suggests that its range may extend into some part of the Magdalena Valley.

*Material examined*.—Western Andes: La Maria, Dagua Valley, 7 (including the type); Atuncela, Rio Dagua (alt. 3,000 feet), 1; Primavera, 2; Las Lomitas, 2; San Antonio, 2; Popayán, 2; Cocal, 1; La Sierra, 2; Concordia, 4.—"Bogotá," 1.



*Piranga flava desidiosa* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 196, 1929—Colombia (monog.).

*Range*.—Subtropical zone of Colombia (western Andes; probably also some parts of the Magdalena Valley).

\**Piranga flava lutea* (Lesson).<sup>1</sup> TSCHUDI'S RED TANAGER.

*Pithylus luteus* Lesson, L'Institut, 2, No. 72, p. 316, Sept. 27, 1834—Callao, Peru (descr. of female; location of type not stated).<sup>2</sup>

*Pitylus luteus* Lesson, in Bougainville, Journ. Navig. Thétis, 2, p. 326, 1837—Callao (descr. of female).

*Phoenisoma lutea* Lesson, Oeuvr. Compl. Buffon, éd. Lévêque, 20, [=Descr. Mamm. Ois.], p. 436, 1847—Callao (descr. of female).

*Phoenisoma azarae* (not *Pyrranga azarae* d'Orbigny) Tschudi, Arch. Naturg., 10, (1), p. 287, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 207, 1846—Peru.

*Pyrranga saira* (not *Tanagra saira* Spix) Sclater, Proc. Zool. Soc. Lond., 24, p. 124, 1856—part, eastern Peru (ex Tschudi).

*Pyrranga azarae* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 514—Junín, Peru; idem, l.c., 1877, p. 332—Palmas, Ecuador; idem, l.c., 1879, p. 227—Tambillo, Peru; Sclater and Salvin, l.c., 1879, p. 601—part, Cangalli, Bolivia; Taczanowski, l.c., 1880, p. 195—Callacate, Peru; idem, l.c., 1882, p. 14—Chirimoto, Peru; idem, Orn. Pér., 2, p. 495, 1884—Peru (Junín, Tambillo, Callacate, Chirimoto, Tambillo, Lechugal, Nancho).

*Pyrranga testacea* (not of Sclater and Salvin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 292, 1883—part, Ecuador and Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 184, 1886—part, spec. k-o, "Jima" (Ecuador), Chirimoto (Peru), and Bolivia ("Cinti," Cangalli).

*Pithylus puteus* (sic) Tschudi, Unters. Faun. Peru., p. 224, 1846—Callao (ex Lesson); Taczanowski, Orn. Pér., 3, p. 513, 1886—Callao (ex Lesson).

<sup>1</sup> *Piranga flava lutea* (Lesson): Similar to *P. f. testacea*, but adult male brighter red with the whitish streaks on the auriculars and the pale reddish eyelid more conspicuous, and the chest not so dark; female with brighter citrine upper parts. Wing, 88–98, (female) 85–91; tail, 73–84, (female) 72–78; bill, 17½–19.

Birds from western Ecuador do not appreciably differ from Peruvian ones, with which specimens from the Yungas of Bolivia agree. Two adult males from "Cinti" in the British Museum are doubtless incorrectly labeled, and are more likely to have originated in the Yungas of La Paz, where Buckley did most of his collecting. The Bolivian range of *P. f. lutea* appears to be confined to the Subtropical zone on the north side of the Cordilleras of La Paz and Cochabamba, while south of that mountain chain *P. f. flava* takes its place. "Jima," eastern Ecuador, is another questionable locality.

*Additional material examined*.—Ecuador (west side): Esmeraldas, 3; Punta Santa Ana, 1; Zaruma, 3; Alamor, 1; Cebollal, Loja, 1.—Peru: Succha, Huamachuco, 2; Viña, Huamachuco, 3; Lima, 1; Lurin, Lima, 1; Surco, Lima, 1.—Bolivia, Yungas of La Paz: Cangalli, 1 (female); Songo, 2; Quebrada Onda, Yungas of Cochabamba, 1; "Cinti," 2.

<sup>2</sup> The type is not in the Paris Museum, but may yet be found in the Museum of the Naval Medical School at Rochefort, where Lesson held the professorship of natural history.



*Pyrranga testacea tschudii* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1892, p. 375—Lima, Peru (type in Berlepsch Collection, now in Frankfurt Museum); idem, l.c., 1896, p. 345—La Merced, Peru; idem, Ornith., 13, pp. 82, 111, 1906—Santa Ana and Huaynapata, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1064, 1912—Peru and Bolivia (Songo, Quebrada Onda, Cangalli, "Cinti"); Bangs and Noble, Auk, 35, p. 461, 1918—Tabaconas and Huancabamba, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 121, 1921—Chauillay and Rio Comerciato, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 677, 1926—Ecuador (Esmeraldas, La Puente, Portovelo, Zaruma, Punta Santa Ana, Casanga, Salvias, Lumaná, Alamor, Pullango, Celiball, Celica).

*Pyrranga tschudii* Salvin, Nov. Zool., 2, p. 5, 1895—Cajabamba, Chusgon, and Succha, Peru.

*Pyrranga flava lutea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 191, 1929—Ecuador to northwestern Bolivia (monog.); idem, l.c., p. 449, 1930—Santa Eulalia, Vista Alegre, Chinchao, and Cullcui, Peru.

*Range.*—Subtropical zone of western Ecuador, Peru, and northwestern Bolivia (Yungas of La Paz and Cochabamba).

9: Peru (Hacienda Limón, east of Balsas, 1; Cullcui, Rio Marañón, 1; Santa Eulalia, 2; Vista Alegre, 2; Chinchao, 3).

### *Piranga flava testacea* (Sclater and Salvin). BRICK-RED TANAGER.

*Pyrranga testacea* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 388—Chitrá and Calovévora, Veragua (type, from Chitrá, in Salvin-Godman Collection, now in British Museum, examined); Ridgway, Proc. Acad. Nat. Sci. Phila., 1869, p. 133—part, Angostura, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 187—Calovévora, Chitrá, and Boquete de Chitrá, Veragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 292, pl. 19, figs. 1, 2, 1883—part, Costa Rica (Angostura) and Panama (Chitrá, Boquete de Chitrá, Calovévora, Santa Fé); Sclater, Cat. Bds. Brit. Mus., 11, p. 184, 1886—part, spec. b-f, Costa Rica and Veragua (Calovévora, Chitrá, Santa Fé); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Costa Rica<sup>1</sup> (Pózo Azul de Pirris, Naránjo de Cartago [=Juan Viñas], and Cartago); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1064, 1912—part, Costa Rica and Veragua.

*Pyrranga testacea testacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 86, 1902—part, Costa Rica and Veragua; Bangs, Auk, 24, p. 309, 1907—Boruca and Paso Real, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 855, 1910—Costa Rica (Cerro de Santa Maria, La Vijagua, Cariblanco de Sarapiquí, La Hondura, Boruca).

*Pyrranga hepatica* (not of Swainson) Salvin, Proc. Zool. Soc. Lond., 1867, p. 139—Santa Fé, Veragua.

*Piranga testacea* subsp. Griscom, Amer. Mus. Nov., 282, p. 10, 1927—Cape Garachiné, Panama.

<sup>1</sup> Specimens from Costa Rica appear to be inseparable from topotypes.

*Material examined.*—Panama, Veragua: Chitrá, 4 (including the type); Santa Fé, 1; Calovévora, 1.—Costa Rica: Boruca, 2; Cerro de Santa Maria, 2; La Vijagua, 1; Cariblanco de Sarapiquí, 3.

*Piranga flava testacea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 203, 1929—Panama to Costa Rica (monog.); Peters, Bull. Mus. Comp. Zool., 71, p. 341, 1929—Boquete Trail, Almirante Bay, Panama.

Range.—Costa Rica and Panama, east to Cape Garachiné.

\**Piranga flava albifacies* Zimmer.<sup>1</sup> WHITE-FACED TANAGER.

*Piranga flava albifacies* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 205, 1929—San José del Sacaré, Chalatenango, Salvador (type in coll. of Donald R. Dickey, Pasadena, examined); Griscom, Bull. Amer. Mus. N. H., 64, p. 379, 1932—Guatemala (La Montañita, Chichicastenango, Huehuetenango).

*Piranga testacea* (not of Sclater and Salvin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 292, 1883—part, Chontales, Nicaragua; Sclater, Cat. Bds. Brit. Mus., 11, p. 184, 1886—part, spec. a, Chontales; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1064, 1912—part, Nicaragua (Chontales).

(?) *Piranga hepatica* (not of Swainson) Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 338, 1932—San Juancito, Honduras (one female, July 27).

Range.—Mountain-pine and oak forests of western Guatemala, El Salvador, (?)Honduras, and Nicaragua.

4: Nicaragua (Matagalpa, 1; San Rafael del Norte, 3).

\**Piranga flava figlina* (Salvin and Godman).<sup>2</sup> BELIZE TANAGER.

*Piranga figlina* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 293, 1883—Manati River, British Honduras, and pine-ridge of Poctun, Guatemala (type, from Manati River, in U. S. National Museum, examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 185, 1886—British Honduras and Guatemala (Poctun).

<sup>1</sup> *Piranga flava albifacies* Zimmer: Nearly related to *P. f. figlina*, but larger; general coloration of adult male deeper and redder; sides of head whiter, with the lower part of lores, the anterior malar region, and the chin distinctly white, the bases of the feathers grayish; auriculars red with prominent white shaft stripes, not brownish with obsolete streaking. Wing, 94 (once), 96–102, (female) 90–100; tail, 73 (once), 76–82, (female) 70–78; bill, 18–19.

Birds from Nicaragua, including an immature male from Chontales, seem decidedly referable to *albifacies*, not to *figlina*.

*Additional material examined*.—El Salvador: San José de Saracé, Chalatenango, 10; Mount Cacaguatique, 8.—Nicaragua: Chontales, 1.

<sup>2</sup> *Piranga flava figlina* (Salvin and Godman): Similar to *P. f. testacea*, but on average larger; auriculars distinctly brown or dull reddish brown (at best with a suggestion of fine whitish streaks); a whitish patch below the eye; interscapulars more or less edged with grayish. Female similar to *P. f. albifacies*, but more brownish above, deeper yellow on the throat, and duller, less greenish, on the flanks. Wing, 88–100, (female) 84–95; tail, 72–80, (female) 65–78; bill, 18–19.

Males from different localities vary somewhat in coloration, but the significance of these slight divergencies cannot be determined without large series of breeding birds.

*Additional material examined*.—British Honduras: Manati River, 1 (the type).—Guatemala: Pine-ridge of Poctun, 6.—Honduras: Segovia River, 1 (male).—Nicaragua: Sacklin, Rio Wanks, 1 (male).

*Pyranga hepatica* (not Swainson) Sclater and Salvin, Ibis, 1859, p. 15—eastern Guatemala; Salvin, Cat. Strickl. Coll., p. 192, 1882—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 291, 1883—part, Guatemala; Sclater, Cat. Bds. Brit. Mus., 11, p. 186, 1886—part, spec. k, Guatemala.

*Pyranga testacea* (not of Sclater and Salvin) Ridgway, Proc. Acad. Nat. Sci. Phila., 1869, p. 133—part, Rio Manati and Belize, British Honduras.

*Piranga figlina* Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1888—Segovia River, Honduras.

*Pyranga testacea figlina* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1064, 1912—British Honduras (Belize, Rio Manati), Honduras (Rio Segovia), and Guatemala (Poctun).

*Pyranga testacea figlina* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 87, 1902—Guatemala (Poctun) to southern Honduras (monog.); Austin, Bull. Mus. Comp. Zool., 69, p. 391, 1929—Augustine, British Honduras; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 338, 1932—Segovia River, Honduras.

*Piranga flava figlina* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 207, 1929—British Honduras to the northern border of Nicaragua (monog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 380, 1932—Secanquim, Vera Paz, Guatemala.

*Range.*—Tropical pine-lands of British Honduras, eastern Guatemala, and eastern Honduras, south to the Nicaraguan border.

2: Nicaragua (Sacklin, fifty miles above Cape Gracias, Rio Wanks [=Segovia River], 2).

**\**Piranga flava dextra* Bangs.<sup>1</sup> EASTERN HEPATIC TANAGER.**

*Piranga hepatica dextra* Bangs, Proc. Biol. Soc. Wash., 20, p. 30, 1907—Jalapa, Vera Cruz, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 409, 1930); Phillips, Auk, 28, p. 87, 1911—Tamaulipas (Matamoros, Rampahuila, Galindo, Carricitos, Montelunga, Realito); Oberholser, Auk, 36, pp. 76, 77, 1919—eastern Mexico (range, crit.).

*Piranga flava dextra* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 210, 1929—eastern Mexico (monog.); Griscom, Bull. Amer. Mus. N. H., 64, p. 379, 1932—Chichicastenango, Momostenango, and Chanquejelve, Guatemala (winter visitor).

*Phoenisoma hepatica* (not *Pyranga hepatica* Swainson) Cabanis, Mus. Hein., 1, p. 25, 1851—Jalapa.

*Pyranga hepatica* Sclater, Proc. Zool. Soc. Lond., 24, p. 124, 1856—part, Orizaba; idem, l.c., 25, p. 213, 1857—Orizaba; idem, l.c., 27, p. 364,

<sup>1</sup> *Piranga flava dextra* Bangs: Nearest to *P. f. hepatica*, but rather smaller and darker; males clearer red with narrower edges of gray to the dorsal feathers; female more yellowish green above. From *P. f. figlina* the male may be distinguished by darker red coloration with broader grayish dorsal edges and with a less extensive pale area on the anterior sides of the head.

*Material examined.*—Mexico: Jico, Vera Cruz, 2; San Vicente, Chiapas, 1; near Tonalá, Chiapas, 2; San Cristóbal, Chiapas, 1; Gineta Mountains, 2; Cerro de la Silla, Nuevo León, 2; Santa Catarina, Nuevo León, 1.

1859—Jalapa; idem, Cat. Coll. Amer. Bds., p. 81, 1862—Jalapa; Sumichrast, Mem. Bost. Soc. Nat. Hist., 1, p. 549, 1869—Vera Cruz up to 3,000 meters; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 291, 1883—part, Jalapa, Orizaba, and Vera Cruz; Sclater, Cat. Bds. Brit. Mus., 11, p. 186, 1886—part, spec. f-h, Jalapa and Orizaba.

*Piranga hepatica* Chapman, Bull. Amer. Mus. N. H., 10, p. 40, 1898—Las Vegas, Vera Cruz; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 84, 1902—part, eastern Mexico; (?)Friedmann, Auk, 42, p. 551, 1925—Brownsville, Texas.

*Piranga hepatica dextra* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1063, 1912—part, southeastern Mexico (Nuevo León to Chiapas).

*Range*.—Eastern Mexico, from eastern Nuevo León through Tamaulipas, Vera Cruz, northern Puebla (Hauchinango), extreme eastern Oaxaca, and Chiapas, south in winter to northwestern Guatemala.

1: Mexico (Oaxaca, 1).

\**Piranga flava hepatica* (Swainson). HEPATIC TANAGER.

*Piranga hepatica* Swainson, Phil. Mag., (n.s.), 1, p. 438, 1827—Real del Monte, Hidalgo, Mexico (descr. of female; location of type unknown); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 291, 1883—part, New Mexico, Arizona, and Mexico; Sclater, Cat. Bds. Brit. Mus., 11, p. 186, 1886—part, Arizona and Mexico; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1063, 1912—part, New Mexico, Arizona, and Mexico.

*Piranga hepatica* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 84, 1902—part, Mexico (part), Arizona, and New Mexico; Miller, Bull. Amer. Mus. N. H., 22, p. 175, 1906—Durango (La Cienaga de las Vacas, Arroyo del Buey); Swarth, Pac. Coast Avif., 10, p. 62, 1914—Arizona (range).

*Piranga hepatica hepatica* Smith, Condor, 19, p. 164, 1917—Davis Mountains, Texas; Oberholser, Auk, 36, p. 77, 1919 (range); Bangs and Peters, Bull. Mus. Comp. Zool., 68, p. 403, 1928—Chivelá, Oaxaca.

*Piranga flava hepatica* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 213, 1929 (monog., full bibliog.); Griscom, Bull. Mus. Comp. Zool., 75, p. 409, 1934—Chilpancingo and Taxco, Guerrero (crit.).

*Piranga hepatica oreophasma* Oberholser, Auk, 36, p. 74, 1919—Pine Canyon, Chisos Mountains, Texas (type in U. S. National Museum).

*Piranga flava oreophasma* Oberholser, Sci. Publ. Cleveland Mus. N. H., 1, p. 105, 1930—Huachuca Mountains, Arizona (crit.); van Rossem, Trans. San Diego Soc. N. H., 6, p. 290, 1931—San Javier, Saric, and Chinobampo, Sonora (crit.).

*Range*.—Highlands of Mexico, west of the Sierra Madre del Oriente, north to central-western Texas, New Mexico, and northwestern Arizona.<sup>1</sup>

<sup>1</sup> Separation of a northwestern race (*P. f. oreophasma*), which has been advocated by Oberholser and more recently by van Rossem, seems to me unwarranted. There is no difference in color, so far as I can see, and the one average slightly larger



11: Arizona (Huachuca Mountains, 8); Texas (Davis Mountains, 2); Mexico (Tuxpan, Jalisco, 1).

**\*Piranga roseo-gularis roseo-gularis (Cabot). ROSE-THROATED TANAGER.**

*Piranga roseo-gularis* Cabot, Bost. Journ. Nat. Hist., 5, No. 3, p. 416, June, 1846—road from Chemax to Yalahao, Yucatan (type in coll. of S. Cabot, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Auk, 32, p. 169, 1915, and Bull. Mus. Comp. Zool., 70, p. 409, 1930); idem, Proc. Bost. Soc. N. H., 2, p. 187, Dec., 1846 (reprint); Sclater, Ibis, 1873, p. 125, pl. 3 (fig. of type).

*Piranga roseigularis* Ridgway, Ibis, 1873, p. 126—Yucatan (descr. of type); Salvin, Ibis, 1874, p. 327—Yucatan; Lawrence, Ann. N. Y. Acad. Sci., 2, p. 247, 1882—Yucatan (descr. of female); Boucard, Proc. Zool. Soc. Lond., 1883, p. 443—Yucatan; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 293, 1883—Yucatan (between Chemax and Yalahao; Izalam); Sclater, Cat. Bds. Brit. Mus., 11, p. 187, 1886—part, spec. a, b, Yucatan (Chem Jonat forest and Izalam); Salvin, Ibis, 1888, p. 258—part, Meco Island (crit.); Chapman, Bull. Amer. Mus. N. H., 8, p. 279, 1896—Chichen Itzá, Yucatan; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1065, 1912—Yucatan (Izalam, La Vega, Chemax).

*Piranga roseo-gularis roseo-gularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 98, 1902—Yucatan (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 142, 1906—Chichen Itzá; Griscom, Amer. Mus. Nov., 235, p. 17, 1926—eastern Quintana Roo; van Tyne, Univ. Mich. Mus. Zool., Misc. Pub., 27, p. 44, 1935—La Libertad, Petén, Guatemala.

*Range.*—Peninsula of Yucatan, including Meco Island, and eastern Guatemala (one record from La Libertad, Petén).<sup>1</sup>

1: Yucatan (unspecified, 1).

**\*Piranga roseo-gularis cozumelae Ridgway. COZUMEL TANAGER.**

*Piranga roseo-gularis cozumelae* Ridgway, Proc. Wash. Acad. Sci., 3, p. 149, April 15, 1901—Cozumel Island, Yucatan (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 99, 1902—Cozumel and (?) Mujeres Islands (monog.); Griscom, Amer. Mus. Nov., 236, p. 12, 1926—Cozumel (crit.).

*Piranga roseigularis cozumelae* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1065, 1912—Cozumel and (?) Mujeres.

size in birds from the United States (and apparently Sonora) is hardly a sufficient reason for maintaining an additional race, since measurements vary a good deal in all the subspecies of *P. flava*. The case has been discussed at length by Zimmer, who also explains the doubtful applicability of Swainson's term for the present form.

Twenty-five specimens from the United States and forty from Mexico examined.

<sup>1</sup> Specimens from Meco Island, which we have not seen, are stated by Salvin to be intermediate, but nearer to the typical form.

*Pyranga roseigularis* (not of Cabot) Salvin, Ibis, 1885, p. 190—Cozumel; Sclater, Cat. Bds. Brit. Mus., 11, p. 187, 1886—part, spec. c-i, Cozumel; Salvin, Ibis, 1888, p. 258—part, Mujeres and Cozumel (crit.).

*Piranga roseigularis* Ridgway, Proc. U. S. Nat. Mus., 8, 568, 1885—Cozumel.

*Range*.—Cozumel and Mujeres Islands, off the eastern coast of Yucatan.<sup>1</sup>

3: Cozumel Island.

**\**Piranga olivacea* (Gmelin). SCARLET TANAGER.**

*Tanagra rubra* (not *Fringilla rubra* Linnaeus) Linnaeus, Syst. Nat., 12th ed., 1, p. 314, 1766—based on "Le Cardinal de Canada" Brisson, Orn., 3, p. 48, pl. 2, fig. 5; Canada.

*Tanagra olivacea* Gmelin, Syst. Nat., 1, (2), p. 889, 1789—chiefly based on "Olive Tanager" Latham (Gen. Syn. Bds., 2, p. 218) and Pennant (Arct. Zool., 2, p. 369); New York.<sup>2</sup>

*Pyranga erythromelas* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 293, pl. M. 22, fig. 1, 1819—based on *Tanagra rubra* (Latham ex) Linnaeus, Syst. Nat., 12th ed., 1, p. 314; Canada; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1065, 1912 (range).

*Piranga erythromelas* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 88, 1902 (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 66, 1902—Boquete, Panama; Riley, in Shattuck, The Bahama Islands, p. 367, 1905—New Providence, Andros, and Cay Lobos; Carriker, Ann. Carnegie Mus., 6, p. 854, 1910—Bonilla, Costa Rica; Barbour, Mem. Nutt. Orn. Cl., 6, p. 127, 1923—Cuba (transient); Chapman, Bull. Amer. Mus. N. H., 55, p. 676, 1926—Ecuador (Rio Suno, lower Sumaco, and below San José); Griscom, l.c., 64, p. 378, 1932—Guatemala.

*Pyranga rubra* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 501—Remedios, Colombia; idem, l.c., 1879, p. 601—Pillon, Yungas, Bolivia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 287, 1883 (monog.); Berlepsch, Journ. Orn., 32, p. 292, 1884—Bucaramanga, Colombia.

*Piranga olivacea* Oberholser, Auk, 36, p. 575, 1919 (crit.).

*Range*.—Eastern North America, from southern Saskatchewan, Manitoba, Ontario, and Quebec, New Brunswick, and Nova Scotia south to Kansas, northern Arkansas, Alabama, and Georgia, and the mountains of Virginia and South Carolina; winters from Colombia to Bolivia; migrates through the West Indies and chiefly along the east coast of Central America.

<sup>1</sup> We have not seen any material from Mujeres. According to Salvin, birds from that island are identical with Cozumel specimens.

<sup>2</sup> I cannot but agree with Oberholser (Auk, 36, pp. 575-576, 1919) that Gmelin's diagnosis is very nearly a literal, though somewhat abridged transcription of Latham's and Pennant's accounts of the "Olive Tanager," which obviously refers to the transition plumage of the Scarlet Tanager. "L'Olivet" of Buffon, likewise quoted by Gmelin—a citation responsible for the additional habitat "Cayenne"—seems to be some other species, since the Scarlet Tanager is not known to occur in Guiana. I do not know for what reason the name *olivacea* has been rejected in the latest edition of the A. O. U. Check List.

61: Massachusetts (Boston, 1; Greenwich, 2; Hyde Park, 1; Lexington, 2; Natick, 2); Connecticut (East Hartford, 5; Lyme, 1; Stafford, 1); New York (Auburn, 1; Cayuga County, 1; Moravia, Gay County, 2; Sennett, Gay County, 1); New Jersey (Englewood, 4); Wisconsin (Beaver Dam, 9; Lake Koshkonong, 1; Woodruff, Vilas County, 2); Illinois (Chicago, 4; Deerfield, 3; Joliet, 5; Lake Forest, 5; Mound City, 1; Palos, 1); Arkansas (Winslow, 1); Texas (Fort Worth, 1); Florida (Key West, 1); West Indies (Antigua, 1); Colombia (unspecified, 2).

**\**Piranga leucoptera leucoptera* (Trudeau). WHITE-WINGED TANAGER.**

*Tanagra erythromelas* (not *Piranga erythromelas* Vieillot) Lichtenstein, Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830—Mexico (type, from Lagunas, in Berlin Museum); Cabanis, Journ. Orn., 11, p. 57, 1863 (reprint).

*Piranga leucoptera* Trudeau, Journ. Acad. Nat. Sci. Phila., 8, p. 160, 1839—Mexico (descr. of male; type probably lost);<sup>1</sup> Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1065, 1912 (range).

*Piranga bivittata* Lafresnaye, Rev. Zool., 5, p. 70, 1842—no locality indicated, = Mexico (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 410, 1930).

*Phoenicosoma bivittata* Cabanis, Mus. Hein., 1, p. 24, 1851—Jalapa, Mexico.

*Piranga erythromelana* [sic] Sclater, Proc. Zool. Soc. Lond., 24, p. 126, 1856—Mexico (Lagunas, Orizaba, Jalapa, Córdoba) and Guatemala (descr.).

*Piranga erythromelaena* Sclater, Proc. Zool. Soc. Lond., 24, p. 303, 1856—Córdoba; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 295, 1883—part, Mexico, Guatemala, and British Honduras; Sclater, Cat. Bds. Brit. Mus., 11, p. 189, 1886—part, spec. a-l, Mexico (Jalapa, Orizaba), Guatemala (Volcan de Agua, Savanna Grande, Retalhuleu, Chisec, Rasché, Vera Paz, Barranca Hondo), and British Honduras (Belize).

*Piranga leucoptera* Chapman, Bull. Amer. Mus. N. H., 10, p. 27, 1898—Jalapa, Vera Cruz; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 122, 1907—Patulul and Mazatenango, Guatemala.

*Piranga leucoptera leucoptera* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 99, 1902—Mexico to Salvador and British Honduras (monog.); Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1903—Yaruca, Honduras; Bangs and Peters, l.c., 67, p. 486, 1927—Motzorongo and Presidio, Vera Cruz, Mexico; Austin, l.c., 69, p. 391, 1929—Mountain Cow and Augustine, British Honduras (crit.); Griscom, Bull. Amer. Mus. N. H., 64, p. 380, 1932 Guatemala (Finca Chamá, Chinoxan, Finca Sepacuite, Finca Carolina, Finca Cipres, San Felipe; crit.).

<sup>1</sup>Not in the collection of the Academy of Natural Sciences, Philadelphia (cf. Stone, Proc. Acad. Nat. Sci. Phila., 1899, p. 21).

*Range*.—Southeastern Mexico (in states of Vera Cruz, Puebla, Mexico, and Chiapas), Guatemala, British Honduras, Honduras (San Pedro), Salvador, and Nicaragua.<sup>1</sup>

16: Guatemala (Mazatenango, 5; Patulul, Sololá, 2; San Felipe, Retalhuleu, 2; Vera Paz, 2); Nicaragua (Matagalpa, 4; San Rafael del Norte, 1).

**\*Piranga leucoptera latifasciata** Ridgway. BROAD-BANDED TANAGER.

*Piranga leucoptera latifasciata* Ridgway, Man. N. Amer. Bds., p. 457, 1887—Costa Rica and Veragua (type not specified, presumably in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 101, 1902—Costa Rica to Veragua (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 66, 1902—Boquete, Chiriquí; Carriker, Ann. Carnegie Mus., 6, p. 853, 1910—Costa Rica (Guayábo, El Copey, La Lagunaria, Santa María de Dota, Naránjo de Cartago, Azahar de Cartago, La Estrella, Escazú, Juan Viñas); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1066, 1912—Costa Rica to Veragua.

*Piranga erythromelaena* (not of Sclater) Salvadori, Atti Accad. Sci. Torino, 4, p. 177, 1868—Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 99, 1868—Costa Rica (Navárrro, Barránca, Dota); Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 187—Volcan de Chiriquí and Veragua (Calovévora); Boucard, l.c., 1878, p. 55—Naránjo and La Candelaria, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 295, 1883—part, Costa Rica and Panama (Volcan de Chiriquí, Calobre, Calovévora); Sclater, Cat. Bds. Brit. Mus., 11, p. 189, 1886—part, spec. m–q, Costa Rica (Tucurriquí, Dota) and Panama (Volcan de Chiriquí, Calovévora); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Chiriquí.

*Piranga leucoptera* (not of Trudeau) Cherrie, Auk, 9, p. 24, 1892—San José, Costa Rica.

*Range*.—Upper Tropical and lower Subtropical zones of Costa Rica and western Panama (east to Veraguas).<sup>2</sup>

1: Costa Rica (Juan Viñas, 1).

**\*Piranga leucoptera ardens** (Tschudi). BLACK-LORED TANAGER.

*Phoenisoma ardens* Tschudi, Arch. Naturg., 10, (1), p. 287, 1844—Peru<sup>3</sup> (type in Neuchâtel Museum).

*Phoenisoma bivittata* (not *Piranga bivittata* Lafresnaye) Tschudi, Unters. Faun. Peru., Aves, p. 207, 1846—eastern Peru.

<sup>1</sup> Birds from the southern part of the range are on average slightly larger and have a trifle more black on the forehead, but the variation is insignificant. *Additional material examined*.—Mexico: Laguna, 1; Jalapa, 7.—Guatemala: Vera Paz, 4.—Honduras: San Pedro, 1 (male).

<sup>2</sup> Five adults from Chiriquí (Boquete) agree with five others from Costa Rica.

<sup>3</sup> We suggest as type locality the valley of Vitoc, Department of Junín (cf. Tschudi, Peru, Reiseskizzen, 2, p. 209, 1846).



*Pyrranga erythromelas* (not of Vieillot) Scater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá," Colombia.

*Pyrranga ardens* Scater, Proc. Zool. Soc. Lond., 24, p. 126, 1856—Colombia ("Bogotá"), Venezuela (Curiana, above Cariaco) and Peru (monog.); idem, l.c., 27, p. 139, 1859—Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 81, 1862—Pallatanga and "Bogotá"; Scater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caripé, northeastern Venezuela; Wyatt, Ibis, 1871, p. 326—near Canuto, Santander, Colombia; Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 14—Chirimoto, Huambo, and Achamal, Peru; Berlepsch and Taczanowski, l.c., 1883, p. 546—Chimbo, Ecuador; Taczanowski, Orn. Pér., 2, p. 497, 1884—Peru (Chirimoto, Huambo); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Mapoto, eastern Ecuador; Salvin, Ibis, 1885, p. 211—Roraima, British Guiana; Scater, Cat. Bds. Brit. Mus., 11, p. 190, 1886—Colombia ("Bogotá"), Ecuador (Pallatanga, Intag), Peru, Venezuela (Caripé), and British Guiana (Roraima); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 345—Garita del Sol, Vitoc, Peru; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—below Nanegal, Ecuador.

*Piranga ardens* Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Nanegal, Ecuador; Phelps, Auk, 14, p. 364, 1897—San Antonio [Monagas], Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 176, 1901—San Julián, Venezuela; Berlepsch and Stolzmann, Orn. Bds., 13, p. 111, 1906—Huaynapata, Marcapata, Peru; Chapman, Bull. U. S. Nat. Mus., 117, p. 121, 1921—Rio San Miguel, Urubamba, Peru; Chubb, Bds. Brit. Guiana, 2, p. 525, 1921—Roraima.

*Pyrranga leucoptera ardens* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1066, 1140, 1912—Colombia to Bolivia (Songo, Quebrada Onda), Venezuela, and British Guiana (crit.).

*Piranga leucoptera ardens* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 63, 1912—La Cumbre de Valencia, Carabobo, Venezuela (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 614, 1917—Miraflores and Ricaurte, Colombia; Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 190, 1924—Silla de Caracas, Loma Redonda, and Galipán, Caracas region, Venezuela (crit., plumages); Chapman, Bull. Amer. Mus. N. H., 55, p. 677, 1926—Ecuador (Rios Coco and Chimbo, junction of Chanchan and Chiguancay, Zaruma, Sabanilla); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 450, 1930—Vista Alegre and Huachipa, Peru (crit.); Chapman, Bull. Amer. Mus. N. H., 63, p. 132, 1931—Arabupu, Roraima.

*Range.*—Subtropical (and lower Tropical) zone of British Guiana (Roraima), northern Venezuela (east to Sucre and Monagas), Colombia (except Santa Marta region), Ecuador (both slopes), eastern Peru, and northwestern Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

4: Peru, Dept. Huánuco (Vista Alegre, 2; Huachipa, 2).

<sup>1</sup>I am unable to corroborate the differences noticed by Berlepsch between Venezuelan and Colombian specimens. They appear to me perfectly alike with the only exception that the pileum, in females from Carabobo and Monagas (San Antonio), is of a brighter yellow. This is, however, most likely to be indi-

\**Piranga ludoviciana* (Wilson). WESTERN TANAGER.

*Tanagra ludoviciana* Wilson, Amer. Orn., 3, p. 27, pl. 20, fig. 1, 1811—"prairies of the Missouri between the Osage and Mandan nations"—about two miles north of Kamiah, Idaho County, Idaho; cf. Davis and Stevenson, Condor, 36, p. 163, 1934 (type in Peale's Museum, doubtless lost).

*Pyrranga erythropis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 291, 1879—based on Wilson, Amer. Orn., 3, pl. 20, fig. 1.

*Tanagra columbiana* Jardine, ed. Wilson's Amer. Orn., 1, p. 317, 1832—Columbia River.

*Pyrranga ludoviciana* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 297, 1883—North America to Guatemala; Sclater, Cat. Bds. Brit. Mus., 11, p. 191, 1886 (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1065, 1912 (range).

*Piranga ludoviciana* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 91, 1902 (monog., full bibliog.); Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 121, 1907—Guatemala (Patulul, Mazatenango, Lake Atitlan); Grinnell, Univ. Calif. Pub. Zool., 32, p. 187, 1928—Lower California; Griscom, Bull. Amer. Mus. N. H., 64, p. 378, 1932—Guatemala (winter).

*Range*.—Western North America, from northwestern British Columbia, and southwestern Mackenzie and South Dakota to the mountains of southern California, northern Lower California, southern Arizona, and western Texas; winters in Mexico and Guatemala.<sup>1</sup>

63: British Columbia (Okanagan, 7); Oregon (Salem, 1); California (Alameda, 1; Chaparral, Butte County, 4; Berryessa, 1; Dulzura, 1; Eureka, 1; Haywards, 3; Nicasio, 1; San Antonio Canyon, 2; San Geronimo, Marin County, 1); Colorado (El Paso County, 1; foot of Williams Range, 1; Williams Range, 2); Arizona (Calabasas, 5; Huachuca, 7; Tucson, 2); Texas (Fort Davis, 2); Mexico (Escuinapa, 1; Iguala, Guerrero, 3; Mexico City, 1); Guatemala (Lake Atitlan, 2; Mazatenango, 7; Patulul, Sololá, 6).

*Piranga bidentata bidentata* (Swainson). SWAINSON'S TANAGER.

*Pyrranga bidentata* Swainson, Phil. Mag., (n.s.), 1, p. 428, June, 1827—Temascaltepec, Mexico (descr. of female; type in Bullock Collection, present location unknown); Sclater, Proc. Zool. Soc. Lond., 24, p. 95, 1856—part, Temascaltepec; Salvin and Godman, Biol. Centr.-Amer.,

vidual, since females from the Caracas region, an intermediate locality, do not differ in that respect from "Bogotá" skins. Males from Peru and Bolivia possibly have the blackish margin along the chin more restricted, but there is a good deal of variation.

*Additional material examined*.—Venezuela: San Antonio, Monagas, 8; Silla de Caracas, 2; Loma Redonda, 11; Galipán, Cerro del Avila, 15; La Cumbre de Valencia, Carabobo, 5; La Ortíza, Táchira, 1.—Colombia: "Bogotá," 6.—Ecuador: Chimbo, 1.—Peru: Garita del Sol, Vitoc, 2; Chirimoto, 1; Huaynapata, 1.—Bolivia: Quebrada Onda, Yungas of Cochabamba, 6.

<sup>1</sup> I cannot find any authentic record of its occurrence in Costa Rica.

Aves, 1, p. 296, 1883—part, Temascaltepec; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1066, 1912—western Mexico.

*Piranga bidentata* Jouy, Proc. U. S. Nat. Mus., 16, p. 779, 1894—Barránca Ibarra, Jalisco; Nelson, Auk, 15, pp. 157, 158, 159, 1898—Jalisco and Sinaloa (crit., range, synon.).

*Piranga bidentata bidentata* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 95, 1902—southwestern Mexico (monog., bibliog.); Miller, Bull. Amer. Mus. N. H., 21, p. 365, 1905—Juan Lisiarraga Mountains, Sinaloa.

*Range.*—Subtropical and Temperate zones on the Pacific slope of western Mexico, from Sinaloa to Mexico (Temascaltepec).

***Piranga bidentata flammea* Ridgway. TRES MARIAS TANAGER.**

*Piranga flammea* Ridgway, Man. N. Amer. Bds., p. 457, 1887—Tres Marias Islands (type in U. S. National Museum).

*Pyrranga bidentata* (not of Swainson) Finsch, Abhandl. Nat. Ver. Bremen, 2, p. 338, 1870—Tres Marias; Grayson, Proc. Bost. Soc. N. H., 14, p. 281, 1872—Tres Marias; Lawrence, Mem. Bost. Soc. N. H., 2, p. 274, 1874—Tres Marias; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 296, 1883—part, Tres Marias Islands; Sclater, Cat. Bds. Brit. Mus., 11, p. 190, 1886—part, spec. f. g, Tres Marias Islands.

*Piranga bidentata flammea* Nelson, N. Amer. Fauna, 14, p. 53, 1899—Maria Madre and Maria Magdalena (crit., habits); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 96, 1902—Tres Marias (monog.); McLellan, Proc. Calif. Acad. Sci., (4), 15, p. 310, 1926—Maria Madre and Maria Magdalena; idem, l.c., (4), 16, p. 48, 1927—Maria Madre.

*Pyrranga bidentata flammea* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1066, 1912—Tres Marias Islands.

*Range.*—Tres Marias Islands (Maria Madre, Maria Magdalena), off western Mexico.

**\**Piranga bidentata sanguinolenta* (Lafresnaye). LAFRESNAYE'S TANAGER.**

*Pyrranga sanguinolenta* Lafresnaye, Rev. Zool., 2, p. 97, 1839—Mexico (type in coll. of Charles Brelay, Bordeaux; its present location unknown).<sup>1</sup>

*Pyrranga bidentata* (not of Swainson) Sclater, Proc. Zool. Soc. Lond., 24, p. 126, 1856—part, Jalapa; Sclater and Salvin, Ibis, 1860, p. 32—Volcan de Fuego, Guatemala; Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—temperate region of Vera Cruz; Salvin, Proc. Zool. Soc. Lond., 1870, p. 187—Volcan de Chiriquí, Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 296, 1883—part, eastern Mexico (Jalapa, above Vera Cruz), Guatemala, Costa Rica, and Panama (Volcan de Chiriquí); Sclater, Cat. Bds. Brit. Mus., 11, p. 190, 1886—part, spec. a-d, h-r, Mexico (Jalapa, Orizaba), Guatemala (Volcan de Fuego, Dueñas, Barránco Hondo), Costa Rica (Irazú, Parito), and Volcan de Chiriquí.

<sup>1</sup> According to Bangs (Bull. Mus. Comp. Zool., 70, p. 410, 1930), there is a female cotype in the Lafresnaye Collection received from C. Brelay.

*Piranga sanguinolenta* Nelson, Auk, 15, pp. 157, 158, 159, 1898—Vera Cruz to Chiriquí (crit., range, synon.).

*Piranga bidentata sanguinolenta* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 96, 1902—Nuevo León to Veragua (monog., full bibliog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 66, 1902—Boquete and Volcan de Chiriquí, Panama; Carriker, Ann. Carnegie Mus., 6, p. 854, 1910—Costa Rica (Volcan de Turrialba, San José, San Juan de Irazú, El Copey, Santa Maria de Dota, La Estrella de Cartago, Escazú, Monte Redondo); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 278, 1910—Coliblanco, Costa Rica; Phillips, Auk, 28, p. 87, 1911—Tamaulipas (Galindo, Realito, Montelunga); Griscom, Bull. Amer. Mus. N. H., 64, p. 381, 1932—Guatemala (Finca La Primavera, La Perla, Barrillos, Finca El Soche, San Lucas).

*Pyrranga bidentata sanguinolenta* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1066, 1912—Nuevo León to Chiriquí.

*Range*.—Subtropical and Temperate zones of eastern Mexico, from Nuevo León (Monterrey) and Tamaulipas to Vera Cruz, and south through Guatemala and Costa Rica to western Panama (Veraguas).<sup>1</sup>

15: Mexico (Jalapa, 1; Mexico City, 1); Costa Rica (Cartago, 2; Coliblanco, 5; Limón, 2; San José, 2; unspecified, 1); Panama (Boquete, Chiriquí, 1).

**\**Piranga rubriceps* (G. R. Gray). COLOMBIAN RED-HEADED TANAGER.**

*Pyrranga rubriceps* G. R. Gray, Genera of Bds., 2, p. 364, pl. 89, lower fig., 1844—no locality stated (type from "Bogotá" in British Museum); Bonaparte, Rev. Mag. Zool., (2), 3, p. 178, 1851—"Mexico," errore (diag.); Sclater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá"; idem, l.c., 24, p. 125, 1856—"Bogotá" (descr.); idem, Cat. Coll. Amer. Bds., p. 81, 1862—"New Granada"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 502—Medellin and Santa Elena, Antioquia, Colombia (descr. of female); Taczanowski, l.c., 1880, p. 195—Cutervo, Peru; idem, Orn. Pér., 2, p. 496, 1884—Cutervo; idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Baños, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 192, 1886—Colombia ("Bogotá," Medellin) and Ecuador ("San Lucas"); Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Cumpang, near Tayabamba, Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1067 1912—Colombia ("Bogotá," Antioquia) and Ecuador ("San Lucas," Baños); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—Mindo, Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 627, 1932—El Portete de Tarquí, Azuay, Ecuador.

<sup>1</sup> Birds from Costa Rica and western Panama have been separated by van Rossem (Trans. San Diego Soc. N. H., 7, p. 367, May 31, 1934) as *P. b. citrea* on account of brighter, more purely yellow under parts and more yellowish (less olive) dorsal surface in the female sex. The characters hold in the series examined, the distinction having been overlooked by the author when writing the above account.



*Piranga rubriceps* Chapman, Bull. Amer. Mus. N. H., 36, p. 614, 1917—Cerro Munchique (western Andes) and Laguneta (central Andes), Colombia; idem, l.c., 55, p. 678, 1926—above Baeza and upper Sumaco, eastern Ecuador (crit.).

*Piranga rubriceps rufistigmata* Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—above Baeza, eastern Ecuador (type in Stockholm Museum); Gyldenstolpe, l.c., 19, A, No. 1, p. 15, 1926—Baeza (crit.).

*Range.*—Subtropical zone of Colombia (all three ranges), eastern and western Ecuador, and northern Peru (Cutervo; Cumpang, near Tayabamba).<sup>1</sup>

3: Peru (Cumpang, near Tayabamba, Libertad, 1); Colombia (“Bogotá,” 1; unspecified, 1).

***Piranga erythrocephala erythrocephala* (Swainson). SOUTH MEXICAN RED-HEADED TANAGER.**

*Spermagra erythrocephala* Swainson, Phil. Mag., (n.s.), 1, p. 437, June, 1827—Temascaltepec, Mexico (type in Bullock Collection, now in Liverpool Museum).

*Piranga cucullata* Du Bus, Bull. Acad. Roy. Sci., etc., Belg., 14, (2), p. 105, 1847—Mexico (type in Brussels Museum); idem, Rev. Zool., 11, p. 245, 1848 (reprint).

*Piranga erythrocephala* Bonaparte, Rev. Mag. Zool., (2), 3, p. 178, 1851—Mexico (diag.); Sclater, Proc. Zool. Soc. Lond., 24, p. 125, 1856—Mexico (monog.); idem, l.c., 27, p. 377, 1859—Juquila and Totontepec, Oaxaca; idem, l.c., 1864, p. 173—vicinity of Mexico City; Dugès, La Naturelleza, 1, p. 140, 1868—Guanajuato; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 294, pl. 17, fig. 2 (male), 1883—Mexico (Guanajuato to Oaxaca); Ridgway, Ibis, 1883, p. 400 (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 192, 1886—Juquila, Mexico; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1067, 1912—part, southern Mexico, in states of Oaxaca, Mexico, and Guanajuato.

*Piranga erythrocephala* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 102, 1902—part, Oaxaca to Guanajuato.

*Piranga erythrocephala erythrocephala* Griscom, Bull. Mus. Comp. Zool., 75, p. 410, 1934—Chilpancingo, Guerrero.

*Range.*—Southern Mexico, in states of Guerrero (Chilpancingo), Guanajuato, Mexico (Temascaltepec, Valley of Mexico), and Oaxaca (Juquila, Totontepec).

<sup>1</sup> Two Peruvian specimens agree with others from eastern Ecuador and “Bogotá.” The reddish tipping to the larger under wing coverts, upon which *P. rubriceps rufistigmata* was based, is an individual character, it being absent in three birds from eastern Ecuador, but present in two (out of ten) “Bogotá” skins.

*Material examined.*—Colombia: “Bogotá,” 10.—Ecuador: Baños, 2; above Baeza, 2.—Peru: Cumpang, 1.

**Piranga erythrocephala candida** Griscom.<sup>1</sup> WEST MEXICAN  
RED-HEADED TANAGER.

*Piranga erythrocephala candida* Griscom, Bull. Mus. Comp. Zool., 75, p. 410, 1934—Hacienda de San Rafael, Chihuahua (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Piranga erythrocephala* (not *Spermagra erythrocephala* Swainson) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1067, 1912—part, Jalisco, Sinaloa, and Chihuahua.

*Piranga erythrocephala* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 102, 1902—part, Jalisco (San Sebastian), Sinaloa (Plomosas), and Chihuahua ("Trompa"=La Triunfa).

*Range.*—Western Mexico, in states of Chihuahua, Sinaloa, and Jalisco.

Genus **CYANICTERUS** Bonaparte

*Cyanicterus* Bonaparte, Consp. Gen. Av., 1, (1), p. 240, 1850—type, by monotypy, *Piranga cyanicterus* Vieillot.

*Callithraupis* Berlepsch, Orn. Centralbl., 4, p. 63, 1879—type, by orig. desig., *Piranga cyanicterus* Vieillot; idem, Journ. Orn., 27, p. 206, 1879 (reprint).

**Cyanicterus cyanicterus** (Vieillot). BLUE-BACKED TANAGER.

*Piranga cyanicterus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 290, 1819—"l'Amérique méridionale"=Cayenne (auct. Berlepsch, 1908) (type in coll. of C. J. Temminck, now in Leiden Museum; =adult male); idem, Gal. Ois., 1, (2), p. 112, pl. 81 (=adult male), 1822—"l'Amérique méridionale"; Lesson, Traité d'Orn., p. 463, 1831 (descr. of adult male).

*Piranga icteropus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 28, p. 291, 1819—"Brésil" (type in Paris Museum; =female or young); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 356, 1855—Cayenne (crit.).

"Tachyphone à épaulettes bleues" Lesson, Traité d'Orn., p. 463, 1831—part ("male"), "Brésil"=Cayenne; Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 356, pl. 22, 1855—Cayenne (crit.; =young male).

*Cyanicterus venustus* Bonaparte, Consp. Gen. Av., 1, (1), p. 240, 1850—new name for *Piranga cyanicterus* Vieillot; Sclater, Proc. Zool. Soc. Lond., 1881, p. 213—Mazaruni River, British Guiana; idem, Cat. Bds. Brit. Mus., 11, p. 193, 1886—Cayenne and British Guiana (Merumé Mountains, Mazaruni River); idem, Bull. Brit. Orn. Cl., 14, p. 31, 1903—Casuaría Grande, near Manáos, Brazil; Penard, Vog. Guyana, 2, p. 450, 1910—Guiana; Sneath, Bol. Mus. Goeldi, 8, p. 449, 1914—Rio Negro and Guiana.

<sup>1</sup> *Piranga erythrocephala candida* Griscom: Male differing from that of the nominate race in having the pileum pinkish vermilion rather than scarlet vermilion, this cap bordered by yellowish green in marked contrast to olive green of back; throat paler, more pinkish; flanks grayish olive instead of olive green; female grayer, less olive above and whiter, less yellow below (Griscom, l.c.).

Birds from Jalisco are stated to be intermediate, having the head nearly as richly colored as *erythrocephala*, but the flanks grayish olive as in *candida*.

*Orthogonys cyanicterus* Sclater, Tanag. Cat. Spec., p. 8, 1854—Cayenne; idem, Proc. Zool. Soc. Lond., 24, p. 122, 1856—Cayenne (crit., descr.); Salvin, Ibis, 1885, p. 211—Merumé Mountains, British Guiana.

*Cyanicterus cyanicterus* Berlepsch, Nov. Zool., 15, p. 116, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1067, 1912 (range); Chubb, Bds. Brit. Guiana, 2, p. 527, 1921—British Guiana (Bonasika River, Makauria River, Mazaruni River, Merumé Mountains).

*Callithraupis cyanicterus* Berlepsch, Ornith. Centralbl., 4, p. 63, 1879; idem, Journ. Orn., 27, p. 206, 1879—Cayenne (descr.).

*Range*.—French, Dutch, and British Guiana, south to the north bank of the Amazon (Casuaría Grande, near Manáos).<sup>1</sup>

### Genus ORTHOGONYNS Strickland

*Orthogonys* Strickland, Ann. Mag. Nat. Hist., 13, p. 421, 1844—type, by orig. desig., *Tanagra viridis* Spix=*Tachyphonus chloricterus* Vieillot.

#### \**Orthogonys chloricterus* (Vieillot). OLIVE-GREEN TANAGER.

*Tachyphonus chloricterus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 360, 1819—Brazil, coll. Delalande, Jr.,=vicinity of Rio de Janeiro (type in Paris Museum examined); idem, Tabl. Enc. Méth., Ornith., livr. 91, p. 804, 1822—Brazil (type stated to be in Paris Museum).

*Tanagra viridis* Spix, Av. Bras. Spec. Nov., 2, p. 36, pl. 48, fig. 2, 1825—"in provincia Rio de Janeiro" (type in Munich Museum examined; cf. Hellmayr, Abhandl. Bayr. Akad. Wiss., 2. Kl., 22, No. 3, p. 671, 1906).

"Tachyphone à épaulettes bleues" Lesson, Traité d'Orn., p. 463, 1831—part ("female"), Brazil; Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 378, 1855 (crit.).

*Orthogonys viridis* Strickland, Ann. Mag. Nat. Hist., 13, p. 421, 1844—Brazil (crit.); Bonaparte, Consp. Gen. Av., 1, (2), p. 331, 1850—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 170, 1856—Rio de Janeiro; Sclater, Proc. Zool. Soc. Lond., 24, p. 122, 1856—Rio de Janeiro (diag.); idem, Cat. Coll. Amer. Bds., p. 82, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 211, 1870—Rio de Janeiro; Berlepsch, Journ. Orn., 21, p. 243, 1873—Blumenau, Santa Catharina; Salvin, Cat. Strickland Coll., p. 193, 1882—Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 194, 1886—São Paulo and Rio Grande do Sul ("Pelotas"); Ihering, Rev. Mus. Paul., 3, p. 152, 1899—Iguapé, São Paulo; Miranda Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Monte Serrat, Serra do Itatiaya; Velho, l.c., p. 264, 1923—Monte Serrat.

*Orthogonys chloricterus* Hellmayr, Nov. Zool., 13, p. 310, 1906—Brazil (crit. on type); Ihering, Cat. Faun. Braz., 1, p. 360, 1907—São Paulo (Iguapé, São Sebastião, Ubatuba, Alto da Serra) and Santa Catharina (Joinville); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1067, 1912—Espírito Santo to Rio Grande do Sul; Hellmayr, Verh. Orn. Ges. Bay., 12, p. 130, 1915—Braço do Sul, Victoria, Espírito Santo; Holt, Bull. Amer. Mus. N. H., 57, p. 321, 1928—Monte Serrat, Serra do Itatiaya.

<sup>1</sup> *Material examined*.—French Guiana: Cayenne, 3.—British Guiana: Mazaruni River, 2.

*Range*.—Wooded coast region of southeastern Brazil, from Espirito Santo to Rio Grande do Sul.<sup>1</sup>

1: Brazil (Santa Catharina, Joinville, 1).

### Genus CHLOROTHRAUPIS Salvin and Godman

*Chlorothraupis* (Ridgway MS.) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 297, Dec., 1883—type, by subs. desig. (Ridgway, Proc. U. S. Nat. Mus., 6, "1883," p. 412, pub. April 11, 1884), *Phoenicothraupis carmioli* Lawrence.

#### \**Chlorothraupis carmioli carmioli* (Lawrence). CARMIOL'S OLIVE Tanager.

*Phoenicothraupis carmioli* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 100, April, 1868—Angostura, Costa Rica (type in U. S. National Museum); Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Ibis, 1869, p. 313—Costa Rica (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, pl. 20, fig. 1, 1883; Ridgway, Proc. U. S. Nat. Mus., 6, "1883," p. 411, pub. April, 1884—Angostura, Costa Rica (crit.).

*Chlorothraupis carmioli* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 299, 1883—part, Nicaragua (Chontales) and Costa Rica (Angostura, Volcan de Turrialba); Sclater, Cat. Bds. Brit. Mus., 11, p. 194, 1886—part, spec. a, b, Nicaragua (Chontales) and Costa Rica (Turrialba); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Rio Sucio, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 155, 1902—part, Nicaragua and Costa Rica; Bangs, Proc. Biol. Soc. Wash., 22, p. 37, 1909—La Vijagua, Costa Rica (notes on vermilion-spotted individuals); Carriker, Ann. Carnegie Mus., 6, p. 840, 1910—Caribbean Costa Rica (Reventazón, San Carlos, Cariblanco de Sarapiquí, Carrillo, La Vijagua, Guápiles, Volcan de Turrialba, Rio Sicsola; habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1068, 1912—eastern Nicaragua and Costa Rica; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 463, 1928—Boquete Trail, western Panama.

*Chlorothraupis carmioli carmioli* Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Boquete Trail, Panama (crit.); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 246, 1932—Eden and Great Falls, Pis Pis River, Nicaragua (nest and eggs descr.).

*Range*.—Tropical zone of eastern Nicaragua, eastern (Caribbean) Costa Rica, and extreme western Panama (Almirante Bay region).<sup>2</sup>

2: Costa Rica (Guácimo, 2).

<sup>1</sup> *Material examined*.—Espirito Santo: Braço do Sul, Victoria, 2.—Rio de Janeiro: Rio de Janeiro, 3; Nova Friburgo, 2; São Sebastião, São Paulo, 2; Paraná, 2; Joinville, Santa Catharina, 2; Blumenau, Santa Catharina, 2; unspecified, 5.

<sup>2</sup> Five Nicaraguan specimens, except by averaging faintly more yellowish below, do not differ from typical Costa Rican skins. Birds from the Almirante Bay region in extreme northwestern Panama, according to Peters, point to *C. c. magnirostris* by slightly heavier bills.



**Chlorothraupis carmioli magnirostris** Griscom.<sup>1</sup> LARGE-BILLED OLIVE TANAGER.

*Chlorothraupis carmioli magnirostris* Griscom, Amer. Mus. Nov., 280, p. 18, 1927—Santa Fé, Veraguas, western Panama (type in the American Museum of Natural History, New York).

*Range*.—Tropical zone of western Panama, in Province of Veraguas (Santa Fé, Pacific slope; Rio Calovévora, Caribbean slope).

**Chlorothraupis carmioli lutescens** Griscom.<sup>2</sup> GRISCOM'S OLIVE TANAGER.

*Chlorothraupis carmioli lutescens* Griscom, Amer. Mus. Nov., 280, p. 18, 1927—Tacarcuna, eastern Panama (type in the American Museum of Natural History, New York); idem, Bull. Mus. Comp. Zool., 72, p. 370, 1932—Permé, Obaldia, and Ranchon, eastern Panama (crit.).

*Range*.—Tropical zone of eastern Panama, Darien (base of Mount Tacarcuna; Tapalisa; Permé; Obaldia; Ranchon).

**Chlorothraupis carmioli frenata** Berlepsch.<sup>3</sup> PERUVIAN OLIVE TANAGER.

*Chlorothraupis carmioli frenata* Berlepsch, Ornith., 14, p. 349, Feb., 1907—Marcapata, southeastern Peru (type in coll. of H. von Berlepsch, now

<sup>1</sup>*Chlorothraupis carmioli magnirostris* Griscom; Very similar to *C. c. carmioli*, but with larger (longer as well as heavier) bill; chin and throat slightly more yellowish, less green. Wing (male), 88–94; bill, 17–19; depth of bill (at nostrils) 10–11.

This form, of which I have seen a series in the American Museum of Natural History, seems to be recognizable by its large bill.

<sup>2</sup>*Chlorothraupis carmioli lutescens* Griscom: Similar to *C. c. magnirostris*, but more yellowish underneath, particularly on the chin and under tail coverts; bill intermediate in proportions between *carmioli* and *magnirostris*. Wing (male), 88–95; bill, 16–17½; depth of bill, 9–10.

The color-characters are not very pronounced, individual variation being unusually great, and the describer himself admits that material subsequently received from extreme eastern (Caribbean) Darien is much less yellowish below than the original series. The bill in this form is, however, decidedly smaller and sometimes does not exceed that of *C. c. carmioli* in size.

Seven specimens examined.

<sup>3</sup>*Chlorothraupis carmioli frenata* Berlepsch: Differs from the Central American races by lighter and purer green upper parts and by having the nasal and loreal feathers pale yellow. In relation to *C. c. carmioli*, the green of the lower surface is much lighter with the throat nearly yellow, apparently approaching *C. c. lutescens*, with which direct comparison could not be made, however. Wing, 92, (female) 82–85; tail, 63, (female) 60–62; bill, 18.

By the possession of a pale yellow loreal streak, this form marks a step in the direction of *C. olivacea*. This fact taken in conjunction with its range, separated as it is from the related races by the intervening *C. olivacea*, might lead one to the conclusion that all these Olive Tanagers formed but a single specific entity split into a number of local representatives. Griscom's statement that both *C. carmioli lutescens* and *C. olivacea* occur in eastern Panama (Darien), however, seems to bar such associations.

*Material examined*.—Peru: Pozuzo, Department of Huánuco, 1; Marcapata, Cuzco, 5; Yahuar mayo, 1; Chaquimayo, 1; San Gaban, 2.

in Frankfort Museum, examined); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1068, 1912—southeastern Peru (Marcapata, Cosnipata); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 27, 1920—Yahuar mayo, Chaquimayo, and San Gaban, Carabaya, Peru (crit.).

*Phoenicothera carmioli* (not of Lawrence) Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, pp. 185, 186—Cosnipata, Peru; Sclater, l.c., 1873, p. 780—Cosnipata; Taczanowski, Orn. Pér., 2, p. 499, 1884—Cosnipata.

*Chlorothraupis carmioli* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 299, 1883—part, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 194, 1886—part, spec. c-e, Cosnipata, Peru; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 155, 1902—part, Peru (Cosnipata).

*Range.*—Tropical zone of Peru, in departments of Huánuco (Pozuzo), Cuzco (Cosnipata, Marcapata), and Puno (Yahuar mayo, Chaquimayo, and San Gaban, Carabaya).

\**Chlorothraupis olivacea* (Cassin). YELLOW-BROWED TANAGER.

*Orthogonys olivaceus* Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 140—"Cordilleras Mountains, on the River Truando, New Grenada" (type in U. S. National Museum); idem, l.c., 1864, p. 287, pl. 2—same locality; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 502—Remedios and Neche, Antioquia, Colombia.

*Chlorothraupis olivacea* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 298, 1883—part, descr. of male and hab. Colombia (Valley of the Truando, Remedios, Neche, and "Vicinity of Pasto"); Sclater, Cat. Bds. Brit. Mus., 11, p. 195, 1886—Colombia (Remedios, Neche, and "Pasto"); Hartert, Nov. Zool., 5, p. 483, 1898—Cachabí, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 154, 1902—Rio Truando and Colombia; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1114—Sipi, Rio Cajón, Nóvita, and San Joaquin, Chocó, Colombia (sexual differences); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1068, 1912—Rio Truando to Ecuador (Cachabí and Bulún); Chapman, Bull. Amer. Mus. N. H., 36, p. 614, 1918—Alto Bonito, Bagado, Baudo, Nóvita Trail, Juntas de Tamaná, Nóvita, Noanamá, Buenaventura, San José, Barbacoas, and Ricaurte, Colombia; Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 228, 1922—Mount Sapo, Darien; Chapman, Bull. Amer. Mus. N. H., 55, p. 678, 1926—northwestern Ecuador; Griscom, Bull. Mus. Comp. Zool., 69, p. 189, 1929—Cana, Darien.

*Range.*—Tropical zone of northwestern Ecuador (Province of Esmeraldas), western Colombia (east to the Rio Neche and Remedios, Antioquia), and eastern Panama (Mount Sapo and Cana, Darien).<sup>1</sup>

4: Ecuador (Bulún, 1); Colombia (Barbacoas, Nariño, 1; Condoto, 1; Buenaventura, Chocó, 1).

<sup>1</sup> According to authors, this species extends to eastern Panama (Darien), whence we have no material. Birds from northwestern Ecuador agree with a series from Pacific Colombia. The locality "Pasto" is without doubt inaccurate.

*Additional material examined.*—Colombia: Sipi, 4; Rio Cajón, 1; Nóvita, 2; San Joaquin, 1.—Ecuador, Province of Esmeraldas: Ventana (alt. 90 ft.), 2; San Javier (alt. 60 ft.), 2.

\***Chlorothraupis stolzmanni** (Berlepsch and Taczanowski).<sup>1</sup>  
STOLZMANN'S TANAGER.

*Phoenicothraupis stolzmanni* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 546—Chimbo, Ecuador (type in Warsaw Museum; cf. Sztolzman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 186, 1927).

*Chlorothraupis stolzmanni* Sclater, Cat. Bds. Brit. Mus., 11, p. 195, 1886—western Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1068, 1912—Chimbo; Chapman, Bull. Amer. Mus. N. H., 36, p. 614, 1917—Buenavista, Nariño, Colombia; idem, l.c., 55, p. 678, 1920—Chimbo and La Chonta, Ecuador.

*Chlorothraupis olivacea* (not *Orthogonys olivaceus* Cassin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 298, 1883—part, descr. of female from Puente de "Chiarvo" [=Chimbo], Ecuador (spec. in Berlepsch Collection examined).

*Range.*—Tropical zone of western Ecuador and southwestern Colombia (Buenavista, Nariño).

3: Ecuador (Lita, 1; Rio Verde, 1; San José, 1).

Genus **HABIA** Blyth

*Habia* Blyth, in Cuvier's Animal Kingdom, p. 184, 1840—type, by subs. desig. (Oberholser, Proc. Biol. Soc. Wash., 35, p. 80, 1922), *Tanagra flammiceps* "Wied" = *Saltator rubicus* Vieillot.

*Phoenicothraupis* Cabanis, Mus. Hein., 1, p. 24, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 72, 1855), *Saltator rubicus* Vieillot.

\***Habia rubica rubica** (Vieillot). RED ANT TANAGER.

*Staltator* [sic] *rubicus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 107, 1817—based on "Habia roxiza" Azara, No. 85; Paraguay.

*Tanagra flammiceps* (Wied MS.) Temminck, Nouv. Rec. Pl. Col., livr. 30, pl. 177 (male), Jan., 1823—"Brésil"—Rio de Janeiro<sup>2</sup> (types in Leiden Museum); Wied, Beitr. Naturg. Bras., 3, (1), p. 497, 1830—southeastern Brazil.

*Tanagra porphyrio* Lichtenstein, Verz. Doubl. Berliner Mus., p. 31, after Sept., 1823—São Paulo (descr. of male; type in Berlin Museum).

<sup>1</sup> *Chlorothraupis stolzmanni* (Berlepsch and Taczanowski) differs readily from the other members of the genus by rufescent instead of green under parts, the breast and middle of the abdomen varying from honey yellow to clay color and passing into buffy citrine on foreneck, throat, and sides. While the dorsal surface is about the same color as in *C. olivacea* excepting the more dusky pileum, the sides of the head are decidedly darker, deep olive rather than yellowish olive, and have no trace whatever of yellow around the eye or in the loreal region. The axillaries, under wing coverts, and the edge of the wing are olive-ocher to honey yellow, not greenish. Wing, 89–90, (female) 85–89; tail, 66, (female) 72; bill, 18–20.

I am unable to see any constant difference between a single topotype and specimens from northwestern Ecuador.

*Material examined.*—Western Ecuador: Chimbo, 1; Lita (alt. 3,000 ft.), Prov. Imbabura, 6.

<sup>2</sup> The specimens given in exchange to Temminck came from the vicinity of Rio de Janeiro, according to the registers of the Vienna Museum.



*Phoenicothera rubica* Cabanis, Mus. Hein., 1, p. 24, 1851—Brazil; Sclater, Ann. Mag. Nat. Hist., (2), 13, p. 24, 1854—part, Brazil and Paraguay; idem, Proc. Zool. Soc. Lond., 24, p. 119, 1856—part, southeastern Brazil and Paraguay (monog.); idem, Cat. Coll. Amer. Bds., p. 82, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 212, 1870—Rio de Janeiro (Sapitiba, Registro do Sai) and São Paulo (Ypanema); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 429—Minas Geraes (Resaquinha, near Barbacena), Rio de Janeiro (Cantagallo), and São Paulo (Hytú, São Bento de Araraquara); Cabanis, Journ. Orn., 22, p. 83, 1874—Cantagallo, Rio de Janeiro; Salvin, Cat. Strickl. Coll., p. 193, 1882—Brazil; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 120, 1885—Rio Grande do Sul (Taquara, Picada Tocana, Arroio Grande); Sclater, Cat. Bds. Brit. Mus., 11, p. 196, 1886—part, spec. a, b, e-h, Nova Friburgo (Rio), São Paulo, and "Pelotas" (Rio Grande do Sul); Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 152, 1899—Piracicaba and Iguapé, São Paulo; idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; Oberholser, Proc. U. S. Nat. Mus., 25, p. 143, 1902—Sapucay, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 360, 1907—part, Espírito Santo (Rio Doce), Rio de Janeiro, and São Paulo (Ypiranga, Rio Mogy-guaassú, Piracicaba, Jaboticabal, Baurú, Rio Feio) to Rio Grande do Sul; Chubb, Ibis, 1910, p. 626—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, pp. 376, 436, 1910—Santa Ana, Misiones; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1068, 1912—part, Rio de Janeiro to Rio Grande do Sul and Paraguay; Dabbene, Bol. Soc. Physic., 1, p. 363, 1914—Santa Ana, Misiones; Bertoni, Faun. Parag., p. 62, 1914—Alto Paraná, Paraguay; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 192, 1926—Candido de Abreu, Salto de Ubá, Salto do Cobre, and Porto Mendes, Paraná; Pinto, Rev. Mus. Paul., 17, (2), p. 786, 1932—São Paulo (Valparaiso) and southern Matto Grosso (Sant' Anna do Paranahyba).

*Tachyphonus rubicus* Burmeister, Syst. Uebers. Th. Bras., 3, p. 168, 1856—Nova Friburgo, Rio.

*Range*.—Wooded region of southeastern Brazil, from southern Minas Geraes (Resaquinha, near Barbacena) and Espírito Santo south to Rio Grande do Sul, and the adjacent districts of Argentina (Santa Ana, Misiones) and Paraguay (Alto Paraná; Sapucay).<sup>1</sup>

2: Brazil (Joinville, Santa Catharina, 1); Argentina (Rio Paranay, Misiones, 1).

### *Habia rubica bahiae* subsp. nov.<sup>2</sup> BAHIAN RED ANT TANAGER.

<sup>1</sup> *Additional material examined*.—Brazil: Rio de Janeiro, 4; Victoria, São Paulo, 4; Ypanema, São Paulo, 6; Iguapé, São Paulo, 1; Laguna, Santa Catharina, 2; Taquara, Rio Grande do Sul, 3.—Paraguay: Sapucay, 3.

<sup>2</sup> *Habia rubica bahiae* subsp. nov.

*Type* in Vienna Museum, No. 19610. Adult male. Bahia, Brazil. Collected by Virgil von Helmreichen.

*Characters*.—Similar to *H. r. rubica*, but slightly larger; under parts of adult males much paler and less reddish, the throat and foreneck being Terra Cotta rather than coral red to Dragon's-blood red, the breast and abdomen pale



*Phoenicothera rubica* (not *Saltator rubicus* Vieillot) Sclater, Cat. Bds. Brit. Mus., 11, p. 196, 1886—part, spec. c, d, Bahia; Ihering, Cat. Faun. Braz., 1, p. 360, 1907—part, Bahia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1068, 1912—part, Bahia.

*Range*.—Wooded region of eastern Brazil (State of Bahia).

\**Habia rubica amabilis* (Berlepsch).<sup>1</sup> BOLIVIAN RED ANT Tanager.

*Phoenicothera rubica amabilis* Berlepsch, Ornith., 14, p. 348, 1907—San Mateo, northern base of the Sierra de Cochabamba, Bolivia (type in Berlepsch Collection, now in Frankfort Museum, examined); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1069, 1912—Bolivia (San Mateo, Quebrada Onda, Yuracares, Guarayos); Hellmayr, Nov. Zool., 32, p. 9, 1925—Yuracares, Bolivia (crit.).

*Saltator rubicus* (not of Vieillot) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 36, 1837—Yuracares and Guarayos, Bolivia (spec. examined).

*Pyrrhuloxia rubica* d'Orbigny, Voy. Amér. Mérid., Ois., p. 265, 1839—Guarayos and Yuracares, Bolivia.

*Phoenicothera rubica* Sclater, Ann. Mag. Nat. Hist., (2), 13, p. 24, 1854—part, Bolivia (ex d'Orbigny); idem, Proc. Zool. Soc. Lond., 24, p. 119, 1856—part, Bolivia (Guarayos, Yuracares); Sclater and Salvin, I.c., 1879, p. 601—Bolivia (same localities); Sclater, Cat. Bds. Brit. Mus., 11, p. 196, 1886—part, Bolivia; Ihering, Cat. Faun. Braz., 1, p. 360, 1907—part, Bolivia.

*Range*.—Tropical zone of northern and eastern Bolivia (Guarayos; Yuracares; Juntas and San Mateo, north foot of Sierra de Cochabamba).

3: Bolivia (Rio San Antonio, 1; Rio Espirito Santo, 2).

gray washed with vinaceous-pink, and the under tail coverts lighter (about Congo pink); upper parts duller, less vinaceous; female not different in coloration, but larger. Wing, 98–103, (female) 95–96; tail, 88–93, (female) 86–90; bill, 17–18.

This race partakes of the wholly blackish (or dusky) bill of the nominate form, but is easily distinguished by the much paler coloration of the under parts. In typical *rubica* the entire ventral surface is bright red, brightest on the throat and gradually shading into light coral pink in the center of the breast and abdomen, while in the Bahian form the much paler red of throat and foreneck is somewhat contrasted to the Congo pink of the posterior parts with the grayish basal portions of the feathers showing through. *H. r. bahiae* forms the passage to *H. r. amabilis*, but is considerably larger with much heavier, entirely blackish bill, and much darker underneath.

*H. r. bahiae* is known only from Bahia (exact locality not stated).

*Material examined*.—Brazil: Bahia, 11.

<sup>1</sup> *Habia rubica amabilis* (Berlepsch): Similar to *H. r. peruviana* in coloration of plumage, but bill larger with the lower mandible horn brown instead of brownish white. Wing, 93–98, (female) 86–92; tail, 82–88, (female) 78–83; bill, 17–18.

This form does not constantly differ in coloration from *peruviana*, so far as I can see, but the larger and darker bill, together with the somewhat greater dimensions, serves to separate the Bolivian birds which, in a way, connect the Amazonian races with the Red Ant Tanagers of eastern Brazil.

*Additional material examined*.—Bolivia: Yuracares, 1; Juntas, 1; San Mateo, 12.

\**Habia rubica peruviana* (Taczanowski).<sup>1</sup> PERUVIAN RED ANT  
TANAGER.

*Phoenicotheraupis peruvianus* Taczanowski, Orn. Pér., 2, p. 498, 1884—Chyavetas, Chamicuros, Yurimaguas, and Monterico, Peru (type, from Yurimaguas, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 186, 1927); Sclater, Ibis, 1885, p. 272—Monterico (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 233, 1926—Yurimaguas, Peru (descr. of female).

*Phoenicotheraupis rubica* (not *Saltator rubicus* Vieillot) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 749—Yurimaguas and Chyavetas, Peru; idem, l.c., 1873, p. 362—Yurimaguas, Chyavetas, and Chamicuros, Peru; Taczanowski, l.c., 1874, p. 513—Monterico, Peru; idem, l.c., 1882, p. 14—Yurimaguas.

*Phoenicotheraupis rubra* (not *Tachyphonus ruber* Vieillot) Pelzeln, Orn. Bras., 3, p. 212, 1870—Engenho do Gama, Matto Grosso, and Borba, Rio Madeira (spec. examined); Ihering, Cat. Faun. Braz., 1, p. 360, 1907—part, Borba and Matto Grosso.

*Phoenicotheraupis rhodinolaema* (not of Salvin and Godman) Sclater, Cat. Bds. Brit. Mus., 11, p. 199, 1886—part, spec. d-f, Chamicuros (Peru) and Ega (Rio Solimões, Brazil); Riker and Chapman, Auk, 7, p. 267, 1890—Santa-rém, Brazil; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Jurua, Brazil.

*Phoenicotheraupis rubra peruviana* Ihering, Cat. Faun. Braz., 1, p. 361, 1907—Rio Jurua (range); Hellmayr, Nov. Zool., 14, p. 44, 1907—Teffé, Rio Solimões (diag., range); idem, l.c., 17, p. 348, 1907—Humaytá, Rio Madeira; Snethlage, Journ. Orn., 56, p. 10, 1908—Cachoeira, Rio Purús, Brazil; Hellmayr, Nov. Zool., 17, p. 276, 1910—Calama, Rio Madeira; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1070, 1912—eastern Peru and northern Brazil; Snethlage, Bol. Mus. Goeldi, 8, p. 450, 1914—Rio Tapajóz (Boim, Villa Braga), Rio Jamauchim (Santa Helena, Tucunaré), and Rio Purús (Cachoeira).

*Habia rubra peruviana* Naumburg, Bull. Amer. Mus. N. H., 60, p. 376, 1930—Matto Grosso (range).

*Habia rubica peruviana* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 450, 1930—Puerto Bermúdez, Junín, Peru.

*Range.*—Tropical zone of eastern Peru (south to Junín) and western Brazil south of the Amazon, east to the Rio Tapajóz, south to northern Matto Grosso (Rio Guaporé).

3: Peru (Puerto Bermúdez, Junín, 3).

<sup>1</sup> *Habia rubica peruviana* (Taczanowski): Agreeing with *H. r. rubra* in dimension and light-colored bill (maxilla brown, mandible pale), but adult male with dusky lateral margins to red crest barely suggested, and rose-red color below mainly restricted to throat, foreneck, sides of chest, and tail coverts, the center of the breast and abdomen being strongly shaded with grayish; female with edges to wings and tail feathers vinaceous-tawny instead of fulvous brown. Wing, 89–92, (female) 82–88; tail, 77–82, (female) 70–77.

*Additional material examined.*—Peru: Yurimaguas, 2; Chamicuros, 4; Xeberos, 1; Peruvian Amazon, 1.—Brazil: Teffé, Rio Solimões, 3; Cachoeira, Rio Purús, 3; Borba, Rio Madeira, 3; Calama, Rio Madeira, 2; Humaytá, Rio Madeira, 4; Engenho do Gama, Rio Guaporé, northern Matto Grosso, 2.

**Habia rubica rhodinolaema** (Salvin and Godman).<sup>1</sup> SCARLET-THROATED ANT TANAGER.

*Phoenicotheraupis rhodinolaema* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 300, 1883—Sarayacu, eastern Ecuador (types in Salvin-Godman Collection, now in British Museum, examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 199, 1886—part, spec. a-c, Sarayacu, Ecuador.

*Phoenicotheraupis rubra rhodinolaema* Hellmayr, Nov. Zool., 14, p. 44, 1907—eastern Ecuador (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1070, 1912—Sarayacu, Ecuador.

*Phoenicotheraupis rubica rhodinolaema* Chapman, Bull. Amer. Mus. N. H., 55, p. 679, 1926—Rio Suno, eastern Ecuador.

*Range*.—Tropical zone of eastern Ecuador (Sarayacu; Rio Suno).

**\*Habia rubica coccinea** (Todd).<sup>2</sup> BOYACÁ ANT TANAGER.

*Phoenicotheraupis rubica coccinea* Todd, Proc. Biol. Soc. Wash., 32, p. 113, June, 1919—La Colorada, Boyacá, Colombia (type in Carnegie Museum).

*Range*.—Tropical zone of the eastern side of the eastern Andes of Colombia, in State of Boyacá (La Colorada), north to western Venezuela (La Azulita, Mérida, and Rio Cogollo, Zulia).

1: Venezuela (Rio Cogollo, Zulia, 1).

**\*Habia rubica rubra** (Vieillot). TRINIDAD RED ANT TANAGER.

*Tachyphonus ruber* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 359, 1819—Trinidad (descr. of male; location of type not stated); Léotaud, Ois. Trinidad, p. 297, 1866—Trinidad.

<sup>1</sup> *Habia rubica rhodinolaema* (Salvin and Godman): Very close to *H. r. peruviana*, but adult male with crown patch and throat brighter, more of a scarlet red; female not certainly distinguishable. Wing, 90, (female) 87; tail, 71-73.

This form requires corroboration by additional specimens, though I cannot match the type either in the shade or in the restriction of the red gular area with any of the skins of *H. r. peruviana* so far examined.

*Material examined*.—Eastern Ecuador: Sarayacu, 3.

<sup>2</sup> *Habia rubica coccinea* (Todd): Male similar to *H. r. rubra*, but below much darker, more vinaceous (less pinkish) with the throat of a markedly brighter scarlet tone; female likewise much darker underneath, buckthorn brown shading into cinnamon buff on throat and middle of belly, and external margins to remiges testaceous or pecan brown, instead of olivaceous; bill decidedly stronger and more blackish, particularly in the male sex. Wing, 91, (female) 84; tail, 80-84; bill, 16.

By the bright red throat of the male and the testaceous wing-edgings of the female, *H. r. coccinea* forms the passage to *H. r. rhodinolaema*, than which it is, however, much darker on the under parts in both sexes, differing besides by stronger, more blackish bill.

An adult male from La Azulita, Mérida, seems to be referable to the same form as a couple from the type locality. I am much indebted to Mr. W. E. Clyde Todd for the loan of these three specimens, the only ones I have seen of this apparently well-characterized race. The Field Museum example from the Rio Cogollo has not been available for examination, but cannot well belong to any other than the present form.

*Phoenicothera rubra* Sclater, Proc. Zool. Soc. Lond., 24, p. 120, 1856—Trinidad (monog.); idem, Cat. Coll. Amer. Bds., p. 83, 1862—Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Finsch, Proc. Zool. Soc. Lond., 1870, p. 581—Trinidad (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 198, 1886—Trinidad and Venezuela; Chapman, Bull. Amer. Mus. N. H., 6, pp. 31, 189, 1894—Princetown, Trinidad; Phelps, Auk, 14, p. 364, 1897—Cumanacoa, Venezuela; Hellmayr, Nov. Zool., 13, p. 17, 1906—Trinidad (Caparo, Laventille, Chaguaramas, Valencia, Aripo); Cherrie, Sci. Bull., Mus. Brookl. Inst., 1, p. 358, 1908—Carenage and Aripo, Trinidad; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1070, 1912—Trinidad and north-eastern Venezuela ("Cumaná").

*Phoenicothera rubra rubra* Hellmayr, Nov. Zool., 14, p. 44, 1907—Trinidad and northeastern Venezuela (crit.); Beebe, Zoologica (N.Y.), 1, p. 103, 1909—La Brea, Monagas, northeastern Venezuela.

*Phoenicothera rubica rubica* (errore) Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 179, 1916—"Guanoco," Venezuela (ex Beebe).

*Range*.—Island of Trinidad and northeastern Venezuela (states of Sucre and Monagas).<sup>1</sup>

1: Venezuela (unspecified, 1).

\**Habia rubica vinacea* (Lawrence). VINACEOUS ANT Tanager.

*Phoenicothera vinacea* Lawrence, Proc. Acad. Nat. Sci. Phila., 19, p. 94, 1867—line of Panama Railroad (descr. of male; type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); idem, Ann. Lyc. Nat. Hist. N. Y., 9, p. 99, 1868—Guaítíl and Grecia, Costa Rica (descr. of female).

*Phoenicothera rubicoides* (not *Saltator rubicoides* Lafresnaye) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Panama Railroad; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—Grecia, Costa Rica.

*Phoenicothera rubica*(?) (not *Saltator rubicus* Vieillot) Salvin, Proc. Zool. Soc. Lond., 1867, p. 139—Santa Fé, Veraguas (crit.).

*Phoenicothera vinacea* Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 187—Volcan de Chiriquí and Calovévora (Veraguas), Panama; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 301, 1883—Costa Rica (Guaítíl, Grecia) and Panama (Volcan de Chiriquí, Calovévora, Santa Fé, Panama Railroad); Sclater, Cat. Bds. Brit. Mus., 11, p. 197, 1886—Costa Rica (Grecia) and Panama (Calovévora, Santa Fé, Volcan de Chiriquí); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Tambór de Alajuela and Guaítíl, Costa Rica; Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Boruca, Térraba, and Buenos Aires, Costa Rica; Bangs, Proc. New Engl. Zool. Cl., 3, p. 66, 1902—Boquete and Volcan de Chiriquí, Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1070, 1912—Costa Rica to Veragua.

<sup>1</sup> *Material examined*.—Trinidad: Caparo, 13; Valencia, 3; Laventille, 2; Chaguaramas, 2; Carenage, 1; Aripo, 4.—Venezuela, Monagas (Los Palmales, Cumanacoa, etc.): 12.



*Phoenicohraupis rubica vinacea* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 146, 1902—Costa Rica to Panama (monog.); Bangs, Auk, 24, p. 309, 1907—Boruca and Lagarto, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 843, 1910—Monte Redondo, Tambór, Bolson, El General, and Buenos Aires de Térraba, Costa Rica (range, habits); Griscom, Bull. Mus. Comp. Zool., 69, p. 189, 1929—Cana, Darien.

*Range.*—Tropical zone of Pacific Costa Rica and Panama east to Darien (Cana).<sup>1</sup>

16: Costa Rica (Ojo Ancho, Nicoya, 10; Buenos Aires de Térraba, 2; Boruca, 4).

**\*Habia rubica alfaroana (Ridgway).<sup>2</sup> ALFARO'S ANT TANAGER.**

*Phoenicohraupis alfaroana* Ridgway, Proc. Biol. Soc. Wash., 18, p. 212, 1905—Miravalles, Costa Rica (type in U. S. National Museum); Bangs, l.c., 22, p. 337, 1909—Tenorio, Cerro de Santa Maria, and Miravalles, Costa Rica (crit.); Carriker, Ann. Carnegie Mus., 6, p. 841, 1910—Miravalles and Bágáces, Costa Rica (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1070, 1912—Costa Rica ("Senorio," Cerro de Santa Maria, "Miravelles").

*Phoenicohraupis vinacea* (not of Lawrence) Underwood, Ibis, 1896, p. 435—Miravalles.

*Range.*—Northwestern Costa Rica (Miravalles, Tenorio, Cerro de Santa Maria, and Bagáces, Guanacaste).

4: Costa Rica (Miravalles, 4).

**\*Habia rubica confinis (Bangs).<sup>3</sup> GUATEMALAN RED TANAGER.**

<sup>1</sup> Specimens from Chiriquí (Boquete) and Veraguas (Calovévora) agree with others from Costa Rica. No material from the Panama Railroad seen.

<sup>2</sup> *Habia rubica alfaroana* (Ridgway): Closely allied to *H. r. vinacea*, but much paler; under parts in adult males orange-pink passing into grenadine on foreneck and throat; dorsal surface also slightly paler; females underneath markedly lighter, less olivaceous. Size the same.

I quite agree with Bangs and Peters that this is merely a pale form of *vinacea*, replacing it in northwestern Costa Rica.

<sup>3</sup> *Habia rubica confinis* (Bangs): Adult male very similar to *H. r. rubicoides*, but perhaps distinguishable by slightly darker coloration and brighter scarlet throat; female a trifle yellower below with brighter ocher-yellow throat. Size slightly larger.

The Central American races of the Red Ant Tanager have unduly suffered at the hands of ornithologists by their ignoring seasonal and individual variation, and the result is an almost hopeless confusion. Birds from western and eastern Guatemala are absolutely inseparable, when adequate series are compared, and the few specimens that we have seen from El Salvador and Honduras can be matched by individuals both from the Atlantic and Pacific sides of Guatemala, *salvadorensis* being thus clearly a synonym of *confinis*. The specimens from Langetilla, mentioned by Peters, might well be the "extremes" of this excessively variable form.

*Additional material examined.*—Honduras: Palmar, 1; San Pedro, 2.—El Salvador, 2.—Guatemala: Coban, Vera Paz, 9; Choctum, 2; Volcan de Agua, above San Diego, 1; Alotenango, 1; Barránco Hondo, 2; sources of Rio de la Pasion, 3; Savanna Grande, 1; Retalhuleu, 2.

*Phoenicotrappis rubica confinis* Bangs, Proc. Biol. Soc. Wash., 18, p. 158, 1905—Yaruca, Honduras (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 411, 1930).

*Habia rubica salvadorensis* Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, p. 4, 1927—Mount Cacaguatique, Department of San Miguel, El Salvador (type in coll. of Donald R. Dickey, Pasadena); Griscom, Occ. Pap. Boston Soc. N. H., 5, p. 291, 1930 (crit.); idem, Bull. Amer. Mus. N. H., 64, p. 382, 1932—Finca El Cipres, Guatemala.

*Phoenicotrappis rubicoides* (not *Saltator rubicoides* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 120, 1854—part, Guatemala; Sclater and Salvin, Ibis, 1859, p. 15—Guatemala; Moore, Proc. Zool. Soc. Lond., 27, p. 58, 1859—Omoa to Chilomo, Honduras; Sclater and Salvin, Ibis, 1860, p. 32—Izabal, Guatemala; Sclater, Cat. Coll. Amer. Bds., p. 83, 1862—part, spec. c, Guatemala; Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 836—Honduras; Salvin, Cat. Strickl. Coll., p. 193, 1882—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 300, 1883—part, Guatemala (Izabal, Choctum, Alotenango, Savanna Grande, Escuintla, Costa Grande, Retalhuleu) and Honduras (Omoa, San Pedro); Sclater, Cat. Bds. Brit. Mus., 11, p. 197, 1886—part, spec. c-p, Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1069, 1912—part, Guatemala (Choctum, Retalhuleu) and Honduras (San Pedro, Omoa).

*Phoenicotrappis rubica rubicoides* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 144, 1902—part, Guatemala and Honduras; Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1903—Yaruca, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 122, 1907—Patulul, Sololá, Guatemala.

*Phoenicotrappis rubicoides confinis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1069, 1912—Honduras (Yaruca, Palmar).

(?) *Habia rubica rubicoides* Peters, Bull. Mus. Comp. Zool., 69, p. 472, 1929—Lancetilla, Honduras (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 339, 1932—Honduras.

*Habia rubica confinis* Griscom, Occ. Pap. Boston Soc. N. H., 5, p. 290, 1930—eastern Honduras and eastern Guatemala; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 339, 1932—Yaruca, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 381, 1932—Secanquim, Guatemala.

*Range*.—Tropical zone of Guatemala, El Salvador, and Honduras, possibly extending into Nicaragua.<sup>1</sup>

11: Guatemala (Patulul, Sololá, 8; Vera Paz, 2); Nicaragua (San Rafael del Norte, 1).

### *Habia rubica affinis* (Nelson).<sup>2</sup> OAXACA ANT TANAGER.

*Phoenicotrappis rubicoides affinis* Nelson, Auk, 14, p. 66, 1897—Pinotepa, Oaxaca, Mexico (type in U. S. National Museum); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1069, 1912—Pinotepa.

<sup>1</sup> A single immature male from San Rafael del Norte, Nicaragua, cannot satisfactorily be placed. It seems intermediate between *H. r. vinacea* and *H. r. confinis*.

<sup>2</sup> This form is autoptically unknown to the author.

*Phoenicotheraupis rubica affinis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 147, 1902—Pacific slope of Oaxaca.

*Range*.—Pacific slope of Oaxaca (Pinotepa) and possibly Guerrero, in southern Mexico.

**Habia rubica nelsoni** (Ridgway). NELSON'S ANT TANAGER.

*Phoenicotheraupis rubica nelsoni* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 145, 1902—"Peninsula of Yucatan (Puerto Morelos) including Campeche (Apazote)" (type not specified, probably in U. S. National Museum); Cole, Bull. Mus. Comp. Zool., 50, p. 141, 1906—Yucatan; Peters, Auk, 30, p. 379, 1913—Camp Mengel, Quintana Roo; Griscom, Amer. Mus. Nov., 235, p. 17, 1926—Chacalal, Yucatan.

*Phoenicotheraupis rubicoides nelsoni* Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1069, 1912—Yucatan (Puerto Morelos, Chichen Itzá), and Campeche (Apazote).

*Habia rubica nelsoni* Griscom, Occ. Pap. Boston Soc. N. H., 5, p. 290, 1930—Yucatan and adjoining parts of Campeche and Quintana Roo (crit.).

*Phoenicotheraupis rubicoides* (not *Saltator rubicoides* Lafresnaye) Chapman, Bull. Amer. Mus. N. H., 8, p. 279, 1896—Chichen Itzá.

*Range*.—Peninsula of Yucatan including the adjoining parts of Campeche and Quintana Roo.

**Habia rubica rubicoides** (Lafresnaye). MEXICAN ANT TANAGER.

*Saltator rubicoides* Lafresnaye, Rev. Zool., 7, p. 41, 1844—Mexico (descr. of male; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 410, 1930).

*Phoenicotheraupis ignicapilla* (Lichtenstein MS.) Finsch, Proc. Zool. Soc. Lond., 1870, p. 581 (in text)—new name for *Saltator rubicoides* Lafresnaye on grounds of purism.<sup>1</sup>

*Phoenicotheraupis rubicoides* Sumichrast, Mem. Boston Soc. N. H., 1, p. 549, 1869—hot region of Vera Cruz; Lawrence, Bull. U. S. Nat. Mus., 4, p. 19, 1876—Guichicovi, Oaxaca; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 300, 1883—part, Mexico (Guichicovi); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1069, 1912—part, Oaxaca.

*Phoenicotheraupis rubica rubicoides* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 144, 1902—part, Oaxaca (Guichicovi).

*Habia rubica rubicoides* Austin, Bull. Mus. Comp. Zool., 69, p. 392, 1929—Mountain Cow, British Honduras; Griscom, Occ. Pap. Boston Soc. N. H., 5, p. 290, 1930—hot lowlands of eastern Vera Cruz to northern Petén (monog.); idem, Bull. Amer. Mus. N. H., 64, p. 381, 1932—Finca Sepacuite, Guatemala (crit.).

<sup>1</sup> Although used in connection with a Guatemalan specimen incidentally mentioned in the text, the name, as it stands, must be regarded as a nomen novum for *S. rubicoides* Lafresnaye. It is not affected by *Tanagera ignicapilla* Lichtenstein (Preis.-Verz. Säug., Vögel, etc., Mexico, p. 2, 1830; Journ. Orn., 11, p. 56, 1863), a pure nomen nudum without nomenclatorial standing.

*Range*.—Hot lowlands of eastern Vera Cruz and northern Oaxaca (Guichicovi) south through Tabasco, Campeche, and British Honduras to northern Petén, Guatemala.

**Habia rubica holobrunnea** Griscom.<sup>1</sup> GRISCOM'S ANT TANAGER.

*Habia rubica holobrunnea* Griscom, Occ. Pap. Boston Soc. N. H., 5, p. 290, 1930—Motzorongo, Vera Cruz, Mexico (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Phoenicotrappis rubicoides* (not *Saltator rubicoides* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 120, 1856—part, Córdoba, Mexico; idem, l.c., p. 303, 1856—Córdoba; idem, l.c., 27, pp. 364, 377, 1859—Jalapa and Playa Vicente, Vera Cruz; idem, l.c., 1864, p. 173—valley of Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 300, 1883—part, Mexico (valley of Mexico, Papantla, Córdoba, Jalapa, Playa Vicente); Sclater, Cat. Bds. Brit. Mus., 11, p. 197, 1886—part, spec. b, Jalapa, Mexico; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1069, 1912—part, Mexico (Jalapa, Córdoba).

*Phoenicotrappis rubica rubicoides* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 144, 1902—part, Mexico (Jalapa, Papantla, Córdoba).

*Habia rubica rubicoides* Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 486, 1927—Presidio and Motzorongo, Vera Cruz.

*Saltator rubicus* (not of Vieillot) Cassin, Proc. Acad. Nat. Sci. Phila., 4, p. 90, 1848—foot of Cofre de Perote, Vera Cruz.

*Range*.—Subtropical zone of eastern Mexico, in State of Vera Cruz.

**Habia rubica rosea** (Nelson).<sup>2</sup> ROSY ANT TANAGER.

*Phoenicotrappis rubicoides roseus* Nelson, Proc. Biol. Soc. Wash., 12, p. 60, 1898—Arroyo de Juan Sánchez, Jalisco, Mexico (type in U. S. National Museum); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1069, 1912—coast region of Tepic.

*Phoenicotrappis rubica roseus* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 147, 1902—Pacific coast district of Tepic.

*Range*.—Pacific coast district of western Mexico, in State of Nayarit.

**\*Habia gutturalis salvini** (Berlepsch). SALVIN'S ANT TANAGER.

*Phoenicotrappis salvini* Berlepsch, Ibis, (5), 1, p. 487, 1883—part, Guatemala (type from Vera Paz, Guatemala, in Berlepsch Collection, now in Frank-

<sup>1</sup> *Habia rubica holobrunnea* Griscom: Very different from the other Central American forms by the adult male having the throat scarlet, passing to bright liver red on abdomen, entirely lacking either gray or rose tones; female darker and browner above, almost uniform brownish olivaceous ocher below (Griscom, l.c.).

It is very strange that another form should occur in the subtropics of Vera Cruz, where it obviously replaces *H. r. rubicoides*.

<sup>2</sup> Unknown to the author.



fort Museum); Salvin and Godman, *Biol. Centr.-Amer.*, Aves, 1, p. 303, Dec., 1883—part, Vera Cruz, Oaxaca (Guichicovi), and Guatemala (Chisec); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 200, 1886—part, spec. a-f, j-l, Mexico ("Tehuantepec") and Guatemala (Chisec, Vera Paz); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1070, 1912—part, southern Mexico (Orizaba, Motzorongo, Oaxaca, Santo Domingo, Tuxtepec, Chiapas) and Guatemala.

*Phoenicotheraupis salvini salvini* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 148, 1902—part, southern Mexico and Guatemala.

*Phoenicotheraupis rubicus* (not *Saltator rubicus* Vieillot) Sumichrast, *Mem. Boston Soc. N. H.*, 1, p. 549, 1869—hot region of Vera Cruz.

*Phoenicotheraupis fuscicauda* (not of Cabanis) Lawrence, *Bull. U. S. Nat. Mus.*, 4, p. 19, 1876—Guichicovi, Oaxaca.

*Habia salvini salvini* Bangs and Peters, *Bull. Mus. Comp. Zool.*, 67, p. 486, 1927—Presidio and Motzorongo, Vera Cruz; Griscom, *Bull. Amer. Mus. N. H.*, 64, p. 382, 1932—Guatemala (Secanquim, Puebla, Chimoxan).

*Range*.—Tropical zone of southeastern Mexico, from southern Vera Cruz (Papantla, Orizaba, Presidio, Motzorongo, etc.) through Oaxaca (Guichicovi, Santo Domingo, etc.) and Chiapas (San Benito, El Salto) to Vera Paz, Guatemala.<sup>1</sup>

1: Guatemala (Vera Paz, 1).

\**Habia gutturalis littoralis* (Nelson).<sup>2</sup> TABASCO ANT TANAGER.

*Phoenicotheraupis littoralis* Nelson, *Auk*, 18, p. 48, 1901—Frontera, Tabasco, Mexico (type in U. S. National Museum).

*Phoenicotheraupis fuscicauda salvini* (not *P. salvini* Berlepsch) Richmond, *Proc. U. S. Nat. Mus.*, 18, p. 631, 1896—Alta Mira, Tamaulipas.

*Phoenicotheraupis salvini littoralis* Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 149, 1902—coast plain of eastern Mexico from southern Tamaulipas to Chiapas and Tabasco (Frontera); Dearborn, *Field Mus. Nat. Hist., Orn. Ser.*, 1, p. 123, 1907—Los Amates, Guatemala; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1071, 1912—southern Tamaulipas to Chiapas and Tabasco.

*Habia salvini littoralis* Griscom, *Bull. Amer. Mus. N. H.*, 64, p. 383, 1932—Los Amates, Guatemala.

<sup>1</sup> *Additional material examined*.—Mexico: Orizaba, Vera Cruz, 3; Guichicovi, Oaxaca, 2.—Guatemala: Vera Paz, 9; Chisec, 3.

<sup>2</sup> *Habia gutturalis littoralis* (Nelson) needs further study, its distributional area being far from clearly established. Birds from Alta Mira are indeed much deeper rosy red below than Guatemalan skins of *salvini*, with which specimens from Orizaba and Guichicovi (Oaxaca) pretty well agree. A male from Teapa, Tabasco, thus not far from the type locality of *littoralis*, however, is much less red, and closely approaches typical *salvini*, while a single male from Los Amates (northern Guatemala) is again very nearly as deeply colored as those from Tamaulipas. It is hard to understand how two races can occur so near together in eastern Mexico (Ridgway, in fact, records both *salvini* and *littoralis* from El Salto, Chiapas!), and the problem appears to require thorough investigation with the help of adequate material.

*Additional material examined*.—Mexico: Alta Mira, Tamaulipas, 6.

*Range*.—Tropical forests along the coast of eastern Mexico, from southern Tamaulipas (Alta Mira, Tampico) to Tabasco (Frontera, Teapa), Chiapas, and eastern Guatemala (Los Amates).

4: Mexico (Achotal, Vera Cruz, 1; Teapa, Tabasco, 1); Guatemala (Los Amates, Izabal, 2).

\**Habia gutturalis roensis* Griscom.<sup>1</sup> QUINTANA ROO ANT  
TANAGER.

*Habia salvini roensis* Griscom, Amer. Mus. Nov., 235, p. 17, 1926—Chun-yaxche, Quintana Roo, Mexico (type in the American Museum of Natural History, New York).

*Phoenicotrappis salvini* Berlepsch, Ibis, 1883, p. 487—part, spec. Nos. 6, 7, Belize and Corozal, British Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 303, 1883—part, British Honduras (Corozal, Belize); Selater, Cat. Bds. Brit. Mus., 11, p. 200, 1886—part, spec. h, i, British Honduras (Corozal, Belize); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1070, 1912—part, British Honduras (Belize, Corozal).

*Phoenicotrappis salvini salvini* Peters, Auk, 30, p. 379, 1913—Xcopen and Camp Mengel, Quintana Roo.

*Habia salvini salvini* Austin, Bull. Mus. Comp. Zool., 69, p. 392, 1929—Cayo District, British Honduras.

*Range*.—Southern Yucatan, in Territory of Quintana Roo (Chun-yaxche; Palmul; Vigia Chica; Xcopen; Camp Mengel) and British Honduras (Corozal; Belize; Orange Walk district; Cayo district).

1: British Honduras (Orange Walk district, 1).

*Habia gutturalis peninsularis* (Ridgway). YUCATAN ANT  
TANAGER.

*Phoenicotrappis salvini peninsularis* Ridgway, Proc. Wash. Acad. Sci., 3, p. 150, 1901—Izalam, Yucatan (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 151, 1902—Yucatan (monog.); Cole, Bull. Mus. Comp. Zool., 50, p. 141, 1906—Chichen Itzá, Yucatan; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1071, 1912—Yucatan Peninsula.

*Phoenicotrappis rubicoides* (not *Saltator rubicoides* Lafresnaye) Boucard, Proc. Zool. Soc. Lond., 1883, p. 443—[Izalam], Yucatan.

<sup>1</sup> *Habia gutturalis roensis* Griscom: "Nearest to *H. g. salvini*, but adult male with throat more crimson, less vermilion, more contrasted with color of under parts, which are rosier, less grayish vermilion; above very slightly more rosy, less brick red and crown-patch more crimson, less scarlet; adult female lighter amber brown above; occiput tinged with ochraceous tawny; throat darker, light ochraceous tawny; under parts paler, more buffy or ochraceous brown." (Griscom, l.c.)

The only available adult male (from Belize) hardly differs from *salvini*, but our female corresponds to Griscom's description.

*Phoenicotheraupis salvini* Berlepsch, Ibis, 1883, p. 487—part, spec. No. 8, Izalam; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 303, 1883—part, Yucatan (Izalam); Sclater, Cat. Bds. Brit. Mus., 11, p. 200, 1886—part, spec. g, Izalam.

*Range*.—Northern parts of Yucatan Peninsula, Mexico.<sup>1</sup>

**Habia gutturalis insularis** (Salvin). ISLAND ANT Tanager.

*Phoenicotheraupis insularis* Salvin, Ibis, (5), 6, p. 259, 1888—Meco and Mujeres Islands, off Yucatan (type in Salvin-Godman Collection, now in British Museum).

*Phoenicotheraupis salvini insularis* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 152, 1902—Meco and Mujeres Islands; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1071, 1912—Meco and Mujeres Islands.

*Range*.—Meco and Mujeres Islands, off coast of Yucatan, Mexico.

**\*Habia gutturalis discolor** (Ridgway). NICARAGUAN ANT Tanager.

*Phoenicotheraupis salvini discolor* Ridgway, Proc. Wash. Acad. Sci., 3, p. 150, 1901—Rio Escondido, Nicaragua (type in U. S. National Museum); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 150, 1902—southern Honduras and Nicaragua (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1071, 1912—Honduras and Nicaragua.

*Phoenicotheraupis rubicoides* (not *Salvator rubicoides* Lafresnaye) Nutting, Proc. U. S. Nat. Mus., 6, p. 382, 1883—Sucuyá, Nicaragua (habits).

*Phoenicotheraupis salvini* (not of Berlepsch) Ridgway, Proc. U. S. Nat. Mus., 10, p. 585, 1888—Segovia River, Honduras; Richmond, l.c., 16, p. 490, 1893—Rio Escondido, Nicaragua.

*Phoenicotheraupis salvini salvini* Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1903—Ceiba and Yaruca, Honduras.

*Habia salvini discolor* Peters, Bull. Mus. Comp. Zool., 69, p. 474, 1929—Lancetilla, Honduras (crit.); Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 246, 1932—Eden, Nicaragua; Stone, l.c., p. 339, 1932—Honduras (Segovia River, Lancetilla, Ceiba, Yaruca).

*Range*.—Tropical zone of Honduras and Nicaragua (excepting extreme southern portion).<sup>2</sup>

12: Nicaragua (San Gerónimo, Chinandega, 12).

<sup>1</sup> A single specimen (adult male) from Izalam, Yucatan, examined. *H. g. peninsularis* should be compared with *H. g. insularis*, which we have not yet seen.

<sup>2</sup> Four additional specimens from Managua, Nicaragua, examined. No material from eastern Nicaragua is available, but the series from Chinandega and Managua answer well to descriptions of *discolor*. Four skins from western Honduras seem best referred to the same form, though they do not quite fit in with the Nicaraguan birds.

\***Habia gutturalis wetmorei** Dickey and van Rossem.<sup>1</sup> WETMORE'S ANT TANAGER.

*Habia salvini wetmorei* Dickey and van Rossem, Proc. Biol. Soc. Wash., 40, p. 5, 1927—Puerto del Triunfo, Department of Usulután, El Salvador (type in collection of Donald R. Dickey, Pasadena); Griscom, Bull. Amer. Mus. N. H., 64, p. 383, 1932—San José and Finca El Cipres, western Guatemala (crit.).

*Phoenicohraupis salvini* (not of Berlepsch) Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 122, 1907—Mazatenango, Guatemala.

*Range*.—Tropical zone of the Pacific coast of San Salvador and Guatemala (San José; Finca El Cipres; Mazatenango).

4: San Salvador (unspecified, 1); Guatemala (San José, 1; Mazatenango, 1; unspecified, 1).

\***Habia gutturalis fuscicauda** (Cabanis). DUSKY-TAILED ANT TANAGER.

*Phoenicohraupis fuscicauda* Cabanis, Journ. Orn., 9, p. 86, 1861—Costa Rica (descr. of male; type in Berlin Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 180, 1865—Greytown, Nicaragua; idem, l.c., 9, p. 99, 1868—Angostura, Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Sarapiquí and Angostura, Costa Rica; Salvin, Ibis, 1872, pp. 313, 316—"Chontales," Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—San Carlos, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 302, 1883—part, descr. of female and hab. Nicaragua ("Chontales," Greytown) and Costa Rica (Angostura, Sarapiquí, Bebedéro, San Carlos); Nutting, Proc. U. S. Nat. Mus., 6, p. 400, 1883—Los Sábalos, Nicaragua; Ridgway, l.c., 6, p. 414, 1886—Pacuare, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 199, 1886—part, spec. a-d, Nicaragua ("Chontales") and Costa Rica (Nicoya); Richmond, Proc. U. S. Nat. Mus., 16, p. 490, 1893—Rio Frio, Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 152, 1902—part, southern Nicaragua to Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1071, 1912—part, southern Nicaragua and Costa Rica; Rendahl, Ark. Zool., 12, No. 8, p. 34, 1919—San Juan del Norte, Nicaragua.

*Phoenicohraupis fuscicauda* Carriker, Ann. Carnegie Mus., 6, p. 842, 1910—Costa Rica (Bebedéro, Jiménez, Tenorio, La Vijagua, Tucuríqui, Guápiles, Guácimo, Cuábres, Rio Sicsola, El Hogar, Esparta; habits).

*Habia fuscicauda* Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Changuinola, Almirante, Western River and Crimacola, Almirante Bay region, Panama.

<sup>1</sup> *Habia gutturalis wetmorei* Dickey and van Rossem: Similar to *H. g. discolor* (of western Nicaragua), but adult males darker throughout, the throat brighter red and less contrasted with the darker red posterior under parts; female, according to the describers, nearer to *H. g. salvini*, but with more richly colored, orange rather than lemon yellow throat.

Of this form I have seen only adult males, which seem to be separable by their darker coloration, notably deeper red breast and abdomen. Two Guatemalan skins agree well with four from Salvador.



*Range*.—Tropical zone of extreme southern Nicaragua, Costa Rica (Caribbean side, and Pacific side from the Rio Grande de Tárcoles northwards), and extreme northwestern Panama (Almirante Bay region).<sup>1</sup>

6: Nicaragua (San Emilio, Lake Nicaragua, 1); Costa Rica (Las Cañas, 1; Matina, 4).

***Habia gutturalis erythrolaema* (Sclater).<sup>2</sup> SOUTHERN DUSKY-TAILED ANT Tanager.**

*Phoenicotheraupis erythrolaema* (Bonaparte MS.) Sclater, Cat. Coll. Amer. Bds., p. 83, 1862—"Santa Marta, New Granada" (descr. of male; type in coll. of P. L. Sclater, now in British Museum).

*Phoenicotheraupis fuscicauda* (not of Cabanis) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 9, 1863—Panama Railroad and "Santa Marta" (crit.); Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Panama (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 302, 1883—part, descr. of male and hab. Panama (Lion Hill) and Colombia ("Santa Marta"); Sclater, Cat. Bds. Brit. Mus., 11, p. 200, 1886—part, spec. e-i, Panama (Lion Hill) and Colombia ("Santa Marta"); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Panama; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 339, p. 4, 1899—Rio Lara, Darien; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 152, 1902—part, Panama and Colombia ("Santa Marta"); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1071, 1912—part, Isthmus of Panama (Lion Hill, Cascajal) and Colombia ("Santa Marta"); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 279, 1918—Gatún, Agua Clara, and Mount Hope, Canal Zone, Panama; Hallinan, Auk, 41, p. 323, 1924—Gatún, Rio Algarrobo, Farfan, and Rio Velasquez, Panama.

<sup>1</sup> While its Nicaraguan range has yet to be worked out in detail, I feel pretty certain that *H. g. fuscicauda* will prove to be restricted to the extreme south of that country. All definite records are from that district except Salvin's locality "Chontales," which seems to have been used in a general sense.

<sup>2</sup> *Habia gutturalis erythrolaema* (Sclater): Adult male similar to *H. g. fuscicauda*, but red of the crown and throat of a rosier, less scarlet tone; breast and abdomen paler and more grayish, washed with Congo pink rather than with dull vinaceous; back also more reddish, less dusky; female decidedly paler, the upper parts Dresden brown rather than Raw umber, the ventral surface ecru-olive rather than buffy-citrine. Size about the same.

This form, in the male sex, bears a certain resemblance to *H. g. salvini*, but is darker vinaceous above with duskiest tail, while the breast and abdomen are not so red, being grayish washed with pale pink. There is some doubt as to the correctness of the original locality, although it should be noted that the American Museum of Natural History also has an old skin from the Lawrence Collection labeled "Santa Marta." I am unable to separate satisfactorily an adult male from Barranquilla from others taken along the Panama Railroad. Cf., however, Dwight and Griscom, Amer. Mus. Nov., 142, p. 5 (in text), 1924. Mr. W. E. Clyde Todd (in litt.) writes that, after comparing specimens from Turbaco (*rubiginosus*) with the material in the British Museum, he believes it to be separable by somewhat paler (vinaceous russet rather than Cameo brown) upper parts, grayer (less sooty) cheeks, and by the brighter scarlet, posteriorly less contrasted gular area of the males. The type of *P. erythrolaema*, though rather faded, appears to be identical with Panama specimens.

*Phoenicotheraupis fuscicauda erythrolaema* Bangs, Proc. New Engl. Zool. Cl., 2, p. 30, 1900—Loma del León, Panama (crit.); Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 222, 1906—Savanna of Panama (crit.).

*Habia fuscicauda erythrolaema* Todd and Carriker, Ann. Carnegie Mus., 14, p. 482, 1922—"Santa Marta" (crit.).

*Phoenicotheraupis rubiginosus* Todd, Proc. Biol. Soc. Wash., 30, p. 3, Jan., 1917—Turbaco, Department of Bolivar, Colombia (type in the Carnegie Museum, Pittsburgh).

*Range*.—Tropical zone of northern Colombia (Barranquilla, Turbaco) and Panama west to the Canal Zone.

\**Habia gutturalis atrimaxillaris* (Dwight and Griscom).<sup>1</sup> BLACK-CHEEKED ANT TANAGER.

*Phoenicotheraupis atrimaxillaris* Dwight and Griscom, Amer. Mus. Nov., 142, p. 4, 1924—Puerto Jiménez, Oso Peninsula, Prov. de Puntarenas, Costa Rica (type in coll. of J. Dwight, now in the American Museum of Natural History, New York).

*Range*.—Tropical zone of southwestern Costa Rica (Oso Peninsula, Province of Puntarenas).

7: Costa Rica (Puerto Jiménez, 7).

*Habia gutturalis gutturalis* (Sclater). ROSY-THROATED ANT TANAGER.

*Phoenicotheraupis gutturalis* Sclater, Ann. Mag. Nat. Hist., (2), 13, p. 25, 1854—"in Nova Grenada?" (type in British Museum); idem, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá"; idem, l.c., 24, p. 120, "Bogotá" (monog.); Wyatt, Ibis, 1871, p. 326—Naránjo, below Bucaramanga, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 502, pl. 42, fig. 4 (egg)—Remedios, Rio Ité, Antioquia, Colombia (nest descr.); Sclater, Cat. Bds. Brit. Mus., 11, p. 201, pl. 11, 1886—Colombia (Remedios, Neche, Naránjo); Berlepsch, Verh. 5th Intern. Orn. Kongr.

<sup>1</sup> *Habia gutturalis atrimaxillaris* (Dwight and Griscom): Nearest to *H. g. gutturalis* and agreeing with it in similarity of sexes, as well as in wholly fuscous tail and blackish sides of the head; but coronal patch much less extensive and grenadine red instead of scarlet; crest feathers much less elongated; upper parts fuscous instead of deep mouse gray; upper tail coverts strongly washed with sorghum brown; throat light salmon orange (instead of deep peach red) and not abruptly defined posteriorly, but gradually passing into the color of the remaining under parts, which are dingy orange pink washed with grayish, particularly on the flanks. The females are smaller, of duller coloration, especially underneath, and lack the red coronal patch, the latter being merely suggested by some reddish brown feathers. Wing, 98–102, (female) 85–90; tail, 90–93, (female) 78–82; bill, 20, (female) 17½–18½.

The blackish border to the chin and the malar stripe average slightly wider than in *H. g. gutturalis*, though some examples from Colombia show the same extent. This very distinct form is of unusual interest, since its occurrence in an isolated district of southwestern Costa Rica serves to demonstrate the close genetic relationship of the Central American Ant Tanagers to *H. gutturalis*. From *H. g. erythrolaema* and *H. g. fuscicauda* it is so different that no comparison is necessary.

Berlin, p. 1072, 1912—Colombia ("Bogotá," Neche, Remedios, Naránjo); Chapman, Bull. Amer. Mus. N. H., 36, p. 615, 1917—west of Honda, Magdalena Valley, Colombia.

*Range*.—Tropical zone of the Magdalena Valley (Naránjo; west of Honda; Remedios, Rio Ité) and lower Cauca (Rio Neche), Colombia.<sup>1</sup>

\**Habia cristata* (Sclater).<sup>3</sup> CRESTED ANT TANAGER.

*Phoenicotrappis cristata* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 11, p. 70, Feb., 1875—"Bogotá," Colombia (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 502—Frontino, western Andes, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 201, 1886—Antioquia, Colombia; Bangs, Proc. Biol. Soc. Wash., 23, p. 75, 1910—Naránjo, Rio Dagua, Colombia; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1113—Pueblo Rico, Loma Hermosa, and La Selva, western Andes, Colombia (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1072, 1912—Colombia ("Bogotá" and Antioquia); Chapman, Bull. Amer. Mus. N. H., 36, p. 614, 1917—western Andes of Colombia (Peque, Nóvita Trail, San Antonio, Rio Lima, Cocal, and Cerro Munchique).

*Range*.—Upper Tropical zone of the western Andes of Colombia (also in "Bogotá" collections?).

3: Colombia (Rio Lima, 3).

Genus LANIO Vieillot

*Lanio* Vieillot, Analyse Nouv. Orn. Élém., p. 40, 1816—type, by orig. desig., "Tangara mordoré" Buffon = *Tanagra fulva* Boddaert.

*Pogonothraupis* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 669, "1848" [= 1849]—new name for *Lanio* Vieillot.

\**Lanio fulvus* (Boddaert). GUIANAN SHRIKE-TANAGER.

*Tangara sulva* [sic]<sup>3</sup> Boddaert, Tabl. Pl. Enl., p. 50, 1783—based on "Tangara jaune à tête noire de Cayenne" Daubenton, Pl. Enl., pl. 809, fig. 2 (= male); Cayenne.

*Tanagra atricapilla* Gmelin, Syst. Nat., 1, (2), p. 899, 1789—based on "Tangara jaune à tête noire de Cayenne" Daubenton, Pl. Enl., pl. 809, fig. 2.

<sup>1</sup> *Material examined*.—Colombia: "Bogotá"; Naránjo, 1; Rio Neche, Antioquia, 2.

<sup>2</sup> *Habia cristata* (Sclater), another species in which the sexes are nearly alike, is easily recognizable by its deep vinous red general coloration, lengthened crest, and bright scarlet head and throat. All the specimens we have seen are from the west Colombian Andes, but the type is said to be a native "Bogotá" skin, a circumstance that tends to indicate its existence also in the mountains bordering the Magdalena Valley, viz., in the distributional area of *H. g. gutturalis*.

*Material examined*.—Colombia, western Andes: Frontino, 2; La Selva (alt. 4,600 feet), Rio Jamaraya, 2; Loma Hermosa (alt. 4,150 feet), Rio Jamaraya, 1; Pueblo Rico (alt. 5,200 feet), San Juan slopes, 4.

<sup>3</sup> Though not printed in italics, this is clearly a latin name which cannot be ignored. "Sulva" is obviously a misprint for *fulva* and should not be perpetuated.

*Pogonothraupis atricapilla* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 669, "1848" [= 1849]—coast of British Guiana.

*Lanio atricapillus* Lafresnaye, Rev. Zool., 9, p. 203, 1846 (crit.); Selater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá"; idem, l.c., 24, p. 118, 1856—Cayenne, British Guiana, and "Bogotá"; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Selater, Proc. Zool. Soc. Lond., 26, pp. 72, 454, 1858—Rio Napo and Gualaquiza, eastern Ecuador; idem, Cat. Coll. Amer. Bds., p. 83, 1862—Bogotá, Cayenne, and Rio Napo; Selater and Salvin, Exot. Orn., p. 64, 1867—Cayenne, British Guiana, Colombia ("Bogotá"), and eastern Ecuador (Napo, Gualaquiza); Salvin, Cat. Strickl. Coll., p. 193, 1882—Cayenne; idem, Ibis, 1885, p. 211—British Guiana (Bartica Grove, Merumé Mountains, Atapuraw River); Selater, Cat. Bds. Brit. Mus., 11, p. 204, 1886—Cayenne, British Guiana (Bartica Grove, Merumé Mountains, Atapuraw River), Colombia ("Bogotá"), and eastern Ecuador (Monji, Sarayacu, Rio Napo); Berlepsch, Nov. Zool., 15, p. 116, 1908—Ipousin (Approuague) and Cayenne, French Guiana; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1073, 1912 (range); Sneath, Bol. Mus. Goeldi, 8, p. 451, 1914—Rio Jary (Santo Antonio da Cachoeira), Brazil; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 88, 1918—Lelydorp, Surinam; Chapman, Bull. Amer. Mus. N. H., 55, p. 679, 1926—eastern Ecuador (Zamora, Sabanillas, Macas, Rio Suno, below San José); Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Rio Suno, Ecuador.

*Lanio fulvus* Mathews and Iredale, Austr. Av. Rec., 3, p. 47, 1915 (nomencl.); Chubb, Bds. Brit. Guiana, 2, p. 529, 1921—Mazaruni River, Ituribisci River, Supenaam, Bartica, Bonasika, Merumé Mountains, and Caramang River.

*Range.*—French, Dutch, and British Guiana, south to the north bank of the lower Amazon, Brazil (Rio Jary), west to the eastern base of the eastern Andes in Colombia and Ecuador.<sup>1</sup>

2: Colombia (Bogotá, 2).

**\**Lanio versicolor versicolor* (Lafresnaye and d'Orbigny). WHITE-WINGED SHRIKE-TANAGER.**

*Tachyphonus versicolor* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 28, 1837—Yuracares, Bolivia (types in Paris Museum examined).

<sup>1</sup>Two adult males from eastern Ecuador (Sarayacu) and another from "Bogotá" I am unable to satisfactorily separate from a Guianan series. Two birds from the Rio Jary are not different either. Strangely enough, this species has not been found anywhere in Venezuela, which leaves a wide gap in the center of the area above given.

Seven specimens from French, nine from British Guiana, two from Brazil (Rio Jary), two from Ecuador (Sarayacu), and three from "Bogotá" examined.

A nearly allied race has lately been discovered at Moyobamba, Department of San Martín, Peru, and was described as *Lanio atricapillus peruvianus* by Carriker (Proc. Acad. Nat. Sci. Phila., 86, p. 331, June, 1935). The male differs by brighter yellow belly and uniform golden yellow instead of tawny rufous lower back, rump, and tail coverts, while the female is much browner below. It should stand as *L. fulvus peruvianus*.



*Pyrranga versicolor* d'Orbigny, Voy. Amér. Mérid., Ois., p. 262, pl. 19, fig. 1 (male), 1839—Yuracares.

*Lanio versicolor* Lafresnaye, Rev. Zool., 9, p. 203, 1846—Bolivia; Sclater, Proc. Zool. Soc. Lond., 24, p. 119, 1856—Bolivia (descr.); idem, l.c., 25, p. 264, 1857—Rio Javarri; Sclater and Salvin, l.c., 1873, p. 185—Cosnipata, Department of Cuzco, Peru; idem, l.c., 1873, p. 262—Rio Javarri; Taczanowski, l.c., 1874, p. 513—Monterico (near Huanta), Peru; Sclater and Salvin, l.c., 1879, p. 601—Yuracares, Bolivia; Taczanowski, Orn. Pér., 2, p. 500, 1884—Peru (Monterico; Cosnipata; "Santa Cruz, Ucayali"); Sclater, Cat. Bds. Brit. Mus., 11, p. 204, 1886—Peru (Cosnipata, Rio Javarri) and Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1839—lower Beni, Bolivia; Berlepsch and Stolzmann, Ornith., 13, p. 111, 1906—Rio Cadena, southeastern Peru; Hellmayr, Nov. Zool., 14, p. 349, 1907—Humaytá, Rio Madeira (crit.); idem, l.c., 17, p. 275, 1910—Allianca, Rio Madeira; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1073, 1912—Peru (Monterico, Cosnipata, Marcapata), Brazil (Rio Javarri, Rio Madeira), and Bolivia (Yuracares, San Mateo); Sneath, Bol. Mus. Goeldi, 8, p. 450, 1914 (range).

*Lanio versicolor versicolor* Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 28, 1920—San Gaban and Chaquimayo, Carabaya, Peru (crit.); idem, Nov. Zool., 30, p. 227, 1923—Bolivia (note on type); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 451, 1930—Huachipa, Peru; Naumburg, Bull. Amer. Mus. N. H., 60, p. 376, 1930—Monte Cristo and Rio Roosevelt, northern Matto Grosso.

*Range*.—Upper Amazonia, from southern Peru (from Loreto and Huánuco departments southward) to northern Bolivia and through the western parts of Brazil east to the Rio Madeira.<sup>1</sup>

4: Peru (Huachipa, Dept. Huánuco, 4).

#### *Lanio versicolor parvus* Berlepsch.<sup>2</sup> LESSER WHITE-WINGED SHRIKE-TANAGER.

*Lanio versicolor parvus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1073, 1140, 1912—Santa Elena, Rio Jamauchim, easterly affluent of the Rio Tapajóz, Brazil (type in Museu Goeldi, Pará, examined); Sneath, Bol. Mus. Goeldi, 8, p. 451, 1914—Rio Tocantins (Arumatheua) and Rio Jamauchim (Santa Elena).

*Lanio versicolor fimbriatus* Miranda Ribeiro, Bol. Mus. Nac. Rio de Janeiro, 3, No. 2, p. 11, June, 1927—Taperinha, Santarem (alternative name for *L. v. minor*).

<sup>1</sup> Birds from the Rio Madeira agree with Peruvian and Bolivian specimens.

*Additional material examined*.—Bolivia: Yuracares, 4; San Mateo, 1.—Peru: Chuchurras, Huánuco, 1; Pozuzo, Huánuco, 1; Marcapata, 12; San Gaban, Carabaya, 2; Chaquimayo, Carabaya, 6; unspecified, 1.—Brazil, Rio Madeira: Humaytá, 1; Allianca, 1.

<sup>2</sup> *Lanio versicolor parvus* Berlepsch: Similar in coloration to *L. v. versicolor*, but considerably smaller. Wing, (adult male) 77 (against 82–86), (female) 72–74 (against 77–80); tail, 71–75 (against 66), (female) 68–71 (against 63–65); bill, 12–13 (against 13–15).

*Material examined*.—Brazil: Santa Elena, Rio Jamauchim, 4 (including type).

*Lanio atricapillus* (not *Tanagra atricapilla* Gmelin) Allen, Bull. Essex Inst., 8, p. 78, 1876—Santarem; Riker and Chapman, Auk, 7, p. 267, 1890 (ex Allen).

*Range*.—Northern Brazil, south of the Amazon, from the Rio Tocantins (Arumatheua) to the Tapajóz.

\**Lanio aurantius aurantius* Lafresnaye. MEXICAN SHRIKE-TANAGER.

*Lanius aurantius* Lafresnaye, Rev. Zool., 9, p. 204, 1846—"Colombia," errore—Guatemala, auct. Berlepsch, 1912 (descr. of immature male; type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 411, 1930); Sclater, Proc. Zool. Soc. Lond., 24, p. 119, 1856—Honduras and Mexico (Orizaba); idem, l.c., p. 303, 1856—Orizaba, Mexico; idem, l.c., 25, p. 229, 1857—Santecomapam, Vera Cruz, Mexico; Sclater and Salvin, Ibis, 1859, p. 15—Honduras; idem, Exot. Orn., p. 64, pl. 31, 1867—Mexico (province of Vera Cruz) and Guatemala (Vera Paz); Sumichrast, Mem. Bost. Soc. N. H., 1, p. 549, 1869—Vera Cruz, Mexico (San Uvero, near San Andres Tuxtla; Omealca); Lawrence, Bull. U. S. Nat. Mus., 4, p. 19, 1876—Guichicovi, Oaxaca; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 43, 1878—Guatemala; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 304, 1883—Mexico (Orizaba, Santecomapam, San Uvero, Omealca, Guichicovi), British Honduras (Belize), Guatemala (Choctum, Kamkal, Kampamak), and Honduras; Sclater, Cat. Bds. Brit. Mus., 11, p. 202, 1886—Mexico (Santecomapam) to Honduras; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 123, 1902—southeastern Mexico to Honduras; Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1903—Yaruca, Honduras; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 122, 1907—Los Amates, Guatemala; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1072, 1912—Mexico to Honduras; Peters, Auk, 30, p. 379, 1913—thirty miles north of Camp Mengel, Quintana Roo; Bangs and Peters, Bull. Mus. Comp. Zool., 67, p. 486, 1927—Presidio, Vera Cruz, Mexico; Austin, l.c., 69, p. 392, 1929—Mountain Cow, British Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 383, 1932—Secanquim, Guatemala; Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 338, 1932—Lancetilla, Honduras.

*Range*.—Upper Tropical zone of southeastern Mexico (in states of Vera Cruz, Oaxaca, Tabasco, and Quintana Roo), British Honduras, and Caribbean Guatemala and Honduras.<sup>1</sup>

2: Mexico (unspecified, 1); Guatemala (Los Amates, 1).

*Lanio aurantius ictus* Kennard and Peters.<sup>2</sup> KENNARD'S SHRIKE-TANAGER.

<sup>1</sup> Five specimens from Honduras (San Pedro) agree well with Guatemalan and Mexican birds.

<sup>2</sup> *Lanio aurantius ictus* Kennard and Peters: Male exactly intermediate between *L. a. leucothorax* and *L. a. melanopygius*, though nearer the latter, but differs by having the black feathers of the rump broadly tipped with yellow; the inner-

*Lanio leucothorax ictus* Kennard and Peters, Proc. New Engl. Zool. Cl., 10, p. 1, Aug., 1927—Boquete Trail, northwestern Panama (type in Museum of Comparative Zoology, Cambridge, Mass.); idem, Proc. Bost. Soc. Nat. Hist., 38, p. 463, 1928—Boquete Trail; Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Boquete Trail.

*Range*.—Tropical zone of extreme northwestern Panama (Boquete Trail, Almirante Bay region).

**\**Lanio aurantius melanopygius* Salvin and Godman. BLACK-RUMPED SHRIKE-TANAGER.**

*Lanio melanopygius* (Ridgway MS.) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 305, Dec., 1883—Costa Rica (Pirris) and Panama (type, from Bugaba, Chiriquí, in Salvin-Godman Collection, now in British Museum); Ridgway, Proc. U. S. Nat. Mus., 6, No. 26, p. 412, April 11, 1884—Pirris, Costa Rica (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 203, 1886—Costa Rica and Panama (Calovévora, Cordillera de Tolé, Santiago de Veragua, Bugaba); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Pózo Azul de Pirris, Costa Rica; Cherrie, Anal. Inst. Fis.-Geog. Mus. Nac. Costa Rica, 4, p. 139, 1893—Palmar and Boruca, Costa Rica; idem, l.c., 6, p. 13, 1895—Pózo Pital, Costa Rica (descr. of young); Bangs, Auk, 18, p. 369, 1901—Divalá, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 125, 1902—southwestern Costa Rica to Veragua (monog.); Bangs, Auk, 24, p. 309, 1907—Boruca and El Pózo de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 848, 1910—Pózo Azul de Pirris, El Pózo de Térraba, and Boruca, Costa Rica (habits); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1072, 1912—southwestern Costa Rica to Veragua.

*Lanio leucothorax* (not of Salvin) Sclater and Salvin, Exot. Orn., p. 63, pl. 32, right fig. (male), 1867—part, Veragua (Santa Fé, Santiago, Cordillera de Tolé); Salvin, Proc. Zool. Soc. Lond., 1867, p. 139—Veraguas (Santa Fé, Santiago, Cordillera de Tolé); idem, l.c., 1870, p. 188—Veragua (Calovévora, Chitrá, Cordillera del Chucú) and Chiriquí (Bugaba, Volcan de Chiriquí).

*Range*.—Tropical zone of southwestern Costa Rica (south of the Rio Diquís) and Pacific side of western Panama (Chiriquí and Veragua).<sup>1</sup>

10: Costa Rica (Puerto Jiménez, Golfo Dulce, 3; Volcan de Oso, 3; Boruca, 2; Palmar, Rio Diquís, 1); Panama (Chiriquí, 1).

most lesser and median wing coverts more extensively white, and the lateral under tail coverts widely edged with yellow; female likewise halfway between its two relatives. Wing, 103, (female) 97; tail, 95–96; bill, 25, (female) 23½.

This intermediate race is known only from five specimens obtained on the Caribbean slope of extreme northwestern Panama, inland of Almirante Bay.

<sup>1</sup> Birds from the Térraba Valley, etc., are identical with topotypes from Chiriquí (Bugaba, Divalá). Two (out of four) males from the Veraguas (Calovévora and Santiago) have a distinct buffy tinge on the posterior border of the white throat.

**Lanio aurantius leucothorax** Salvin. WHITE-THROATED SHRIKE-TANAGER.

*Lanio leucothorax* Salvin, Proc. Zool. Soc. Lond., 1864, p. 581—Tucurríqui, Costa Rica (types in Salvin-Godman Collection, now in British Museum); Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—Angostura and "Payariqui," Costa Rica; Sclater and Salvin, Exot. Orn., p. 63, pl. 32, left fig. (female), 1867—part, Costa Rica (Tucurríqui, Angostura, "Payariqui"); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 100, 1868—Costa Rica (Tucurríqui, Angostura, Pacuare); Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Ibis, 1872, p. 317—Chontales, Nicaragua; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 305, 1883—Nicaragua (Chontales) and Costa Rica (Tucurríqui, Angostura, Pacuare); Sclater, Cat. Bds. Brit. Mus., 11, p. 203, 1886—Nicaragua (Chontales) and Costa Rica (Angostura, Tucurríqui); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Costa Rica; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 124, 1902—eastern Nicaragua and Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 849, 1910—La Vijagua and Carrillo, eastern Costa Rica (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1072, 1912—eastern Nicaragua and Costa Rica.

*Lanio leucothorax leucothorax* Huber, Proc. Acad. Nat. Sci. Phila., 84, p. 246, 1932—Great Falls, Pis Pis River, Nicaragua.

*Range*.—Upper Tropical zone of eastern Nicaragua and eastern Costa Rica.<sup>1</sup>

**Lanio aurantius reversus** Bangs and Griscom.<sup>2</sup> PUNTARENAS SHRIKE-TANAGER.

*Lanio leucothorax reversus* Bangs and Griscom, Proc. New Engl. Zool. Cl., 13, p. 53, Nov., 1932—Las Agujas, Puntarenas, Costa Rica (type in Museum of Comparative Zoology, Cambridge, Mass.).

*Range*.—Tropical zone of northwestern Costa Rica (Las Agujas, Puntarenas, Nicoya Peninsula).

Genus TACHYPHONUS Vieillot<sup>3</sup>

*Tachyphonus* Vieillot, Analyse Nouv. Orn. Éléme., p. 33, 1816—type, by monotypy, "Tangara noir" Buffon = *Tangara rufa* Boddaert.

*Pyrrota* Vieillot, Analyse Nouv. Orn. Éléme., p. 45, 1816—type, by monotypy, "Tangaroux" Buffon = *Tangara rufa* Boddaert.

<sup>1</sup> Seven specimens from Costa Rica (La Vijagua) examined.

<sup>2</sup> *Lanio aurantius reversus* Bangs and Griscom: Male closely similar to *L. a. melanopygius*, but white throat with a well-marked buff border (as in *L. a. leucothorax*); female with light gray throat (like *aurantius*), more olive above than *melanopygius*, but with slightly darker flanks and under tail coverts than *aurantius*; size larger, about the same as *leucothorax* and *aurantius*. Wing, 97-99, (female) 95; tail, 87-89.

This form, which we have not seen, clearly connects the southern races with *L. a. aurantius*, particularly by the coloring of the female sex.

<sup>3</sup> I am unable to make out *Tachyphonus tenuirostris* Swainson (Quart. Journ. Sci. Litt. Arts Roy. Inst., 20, No. 39, p. 68, Oct., 1825), which is described as "deep glossy raven black with the scapulars and parts of the lesser wing coverts



*Comarophagus* Boie, Isis, 1826, p. 974—type, by virtual monotypy, *Oriolus leucopterus* "Latham" [= Gmelin] = *Tangara rufa* Boddaert.

**\*Tachyphonus rufus (Boddaert). GREATER WHITE-SHOULDERED TANAGER.**

*Tangara rufa* Boddaert, Tabl. Pl. Enl., p. 44, Dec., 1783—based on "Le Tangaroux de Cayenne" Daubenton, Pl. Enl., pl. 711 (= female).

*Oriolus melaleucus* Sparrman, Mus. Carlson, fasc. 2, pl. 31, 1787—Surinam (descr. of adult male; type in Coll. Carlson, present location unknown).

*Oriolus leucopterus* Gmelin, Syst. Nat., 1, (1), p. 392, 1788—mainly<sup>1</sup> based on "White-winged Oriole" Latham, Gen. Syn., Bds., 1, (2), p. 440; Cayenne (desc. of adult male).

*Tanagra nigerrima* Gmelin, Syst. Nat., 1, (2), p. 899, 1789—based on Daubenton, Pl. Enl., pl. 179, fig. 2 (=male) and pl. 711 (=female), French Guiana; Wied, Beitr. Naturg. Bras., 3, (1), p. 534, 1830—Bahia.

*Tachyphonus cirrhomelas* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 32, p. 357, 1819—based on "La Houppette noire" Desmarest, Hist. Nat. Tang., livr. 9, pl. 49 (=young male), Guiana.

*Tachyphonus beauperthuyi* Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 82, 1851—locality not indicated (descr. of male; types in Paris Museum from "Côte ferme"—near Cumaná, Venezuela); Sclater, Cat. Coll. Amer. Bds., p. 85, 1862—Venezuela; Léotaud, Ois. Trinidad, p. 299, 1866—Trinidad.

*Tachyphonus nigerrimus* Swainson, Quart. Journ. Sci. Litt. Arts Roy. Inst., 20, No. 39, p. 62, 1825—Pernambuco and tableland of Bahia; Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 29, 1837—Corrientes (spec. examined); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 669, "1848" [=1849]—coast of British Guiana; Burmeister, Syst. Uebers. Th. Bras., 3, p. 166, 1856—Brazil.

*Tachyphonus leucopterus* d'Orbigny, Voy. Amér. Mérid., Ois., p. 277, 1839—Corrientes; Jardine, Ann. Mag. Nat. Hist., 20, p. 332, 1847—Tobago.

*Tachyphonus melaleucus* Sclater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá," Colombia; idem, l.c., 24, p. 113, 1856 (monog.); Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 1857—Cayenne; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 331, 1861—Panama Railroad; Sclater, Cat. Coll. Amer. Bds., p. 84, 1862—Cayenne and Trinidad; Taylor, Ibis, 1864, p. 82—Trinidad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Panama Railroad; idem, l.c., 1867, p. 571—Pará and Tocantins River; idem, l.c., 1868, p. 167—Carúpano, Venezuela; Finsch, l.c., 1870, p. 582—Trinidad; Pelzeln, Orn. Bras., 3, p. 212, 1870—Rio Paraná, Goyás, Rio dos Piloens, Engenho do Gama, São Vicente, Tapajóz, and Pará, Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 238—São Domingo,

white and the under tail coverts *deep rufous*." The type, supposed to be from "the interior of Buenos Aires," was in the author's collection. Bonaparte (Consp. Gen. Av., 1, p. 240, 1850) identified it with *T. luctuosus*, but this bird has no rufous on the under tail coverts in any plumage.

<sup>1</sup> The reference to Pennant does not belong here.

Minas Geraes; Wyatt, *Ibis*, 1871, p. 327—Ocaña and Bucaramanga, Colombia; Layard, *Ibis*, 1873, p. 379—Pará; Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1876, p. 16—Maranura, Huiro, and Potrero, Department of Cuzco; Peru; idem, l.c., 1879, p. 503, pl. 42, fig. 5 (egg)—Medellin and Remedios, Colombia (eggs descr.); Forbes, *Ibis*, 1881, p. 333—Pernambuco (Caxanga to Garanhuns) and Parahyba; Taczanowski, *Proc. Zool. Soc. Lond.*, 1882, p. 15—Chirimoto and Huambo, Peru (eggs descr.); Salvin and Godman, *Biol. Centr.-Amer., Aves*, 1, p. 309, 1883—Costa Rica, Panama (Veraguas, Railroad line, Obispo) and South America; Taczanowski, *Orn. Pér.*, 2, p. 504, 1884—Peru (Maranura, Huiro, Potrero, Moyobamba, Huayabamba); Berlepsch, *Journ. Orn.*, 32, p. 292, 1884—Bucaramanga, Colombia; Ridgway, *Proc. U. S. Nat. Mus.*, 7, p. 173, 1884—Trinidad; Salvin, *Ibis*, 1885, p. 211—British Guiana (Bartica Grove); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 206, 1886—Costa Rica to Peru and Brazil; Berlepsch, *Journ. Orn.*, 35, p. 7, 1887—Lambaré, Paraguay; Riker and Chapman, *Auk*, 7, p. 267, 1890—Santarém, Brazil; Kerr, *Ibis*, 1892, p. 124—Fortín Page, lower Pilcomayo, Paraguay; Cory, *Auk*, 10, p. 220, 1893—Tobago; Salvadori, *Boll. Mus. Zool. Torino*, 10, No. 208, p. 4, 1895—Colonia Risso, Paraguay; Robinson, *Flying Trip to Tropics*, p. 161, 1895—Guadas, Colombia; idem, *Proc. U. S. Nat. Mus.*, 18, pp. 677, 685, 1896—Margarita Island and La Guaira, Venezuela; Salvadori and Festa, *Boll. Mus. Zool. Torino*, 14, No. 339, 1899, p. 4—Colón, Panama; Dalmas, *Mém. Soc. Zool. France*, 13, p. 137, 1900—Tobago; Robinson and Richmond, *Proc. U. S. Nat. Mus.*, 24, p. 176, 1901—La Guaira, Venezuela; Clark, *Auk*, 19, p. 266, 1902—Margarita Island; Goeldi, *Ibis*, 1903, p. 498—Rio Capim, Pará; Nicoll, *Ibis*, 1904, p. 40—Bahia; Sneath, *Journ. Orn.*, 55, p. 294, 1907—Pará, Rio Guamá, Rio Capim, and Rio Mojú, Brazil; Lowe, *Ibis*, 1907, p. 569—Margarita Island; Cory, *Field Mus. Nat. Hist., Orn. Ser.*, 1, p. 249, 1909—Margarita Island; Reiser, *Denks. Math.-Naturw. Kl. Akad. Wiss. Wien*, 76, p. 84, 1910—Pernambuco (Beberibé, near Recife), Bahia (Barra, near Bahia City), and Piauíhy (Santa Philomena, Apertado Hora, Therezina, São Gonçalves, União); Grant, *Ibis*, 1911, p. 94—Riacho Ancho, Chaco, Argentina.

*Tachyphonus rufus* Allen, *Bull. Amer. Mus. N. H.*, 3, p. 359, 1891—Chapada, Matto Grosso (nest and eggs descr.); idem, l.c., 4, p. 52, 1892—Carúpano and El Pilar, Venezuela; Chapman, l.c., 6, p. 31, 1894—Princetown, Trinidad (habits); Phelps, *Auk*, 14, p. 364, 1897—Cumanacoa and San Antonio, Venezuela; Bangs, *Proc. Biol. Soc. Wash.*, 12, pp. 160, 179, 1898—Pueblo Viejo and Palomina, Colombia; Allen, *Bull. Amer. Mus. N. H.*, 13, p. 168, 1900 (ex Bangs); Bangs, *Proc. New Engl. Zool. Cl.*, 2, p. 29, 1900—Loma del León, Panama; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 130, 1902 (monog.); Berlepsch and Hartert, *Nov. Zool.*, 9, p. 21, 1902—Caicara, Ciudad Bolívar, Rio Orinoco, and La Prición, Caura, Venezuela; Hellmayr, l.c., 13, p. 17, 1906—Trinidad (Caparo, Pointe Gourde, Valencia, Seelet, Laventille, Chaguaramas); Thayer and Bangs, *Bull. Mus. Comp. Zool.*, 46, p. 222, 1906—Savanna of Panama; Berlepsch and Stolzmann, *Ornis*, 13, p. 82, 1906—Santa Ana and Idma, Peru; Ihering, *Cat. Faun. Braz.*, 1, p. 361, 1907—Itapura, São Paulo, and Bahia; Cherrie, *Sci. Bull., Mus. Brookl. Inst.*, 1, p. 188, 1906—Aripo,

Trinidad; idem, l.c., p. 359, 1903—Carenage and Aripo, Trinidad; Ménégaux, *Bull. Mus. Hist. Nat. Paris*, **14**, p. 9, 1903—French Guiana; Hellmayr, *Nov. Zool.*, **15**, p. 29, 1908—Goyáz, Fazenda Esperança, and Rio Araguaya, Goyáz; Berlepsch, l.c., **15**, p. 116, 1908—Cayenne, Isle le Père, and Roche-Marie, French Guiana; Beebe, *Zoologica (N.Y.)*, **1**, p. 103, 1909—Guanoco, Orinoco Delta, Venezuela; Lillo, *Apunt. Hist. Nat.*, **1**, p. 43, 1909—Mocoví, Santa Fé, Argentina; Hartert and Venturi, *Nov. Zool.*, **16**, p. 173, 1909—Chaco; Dabbene, *Anal. Mus. Nac. Buenos Aires*, (3), **11**, p. 376, 1910—Mocoví and Pilcomayo, Chaco; Carriker, *Ann. Carnegie Mus.*, **6**, p. 848, 1910—Costa Rica (one record); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1074, 1912 (range); Hellmayr, *Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss.*, **26**, No. 2, pp. 71, 87, 1912—Pará and Peixe-Boi, Brazil; idem and Seilern, *Arch. Naturg.*, **78**, A, Heft 5, p. 63, 1912—San Esteban and Las Quiguas, Carabobo, Venezuela; Bertoni, *Faun. Parag.*, p. 63, 1914—Paraguay; Snethlage, *Bol. Mus. Goeldi*, **8**, p. 452, 1914—Pará, Benevides, Quati-purú, Rio Guamá (Ourém), Rio Capim, Rio Mojú, and Rio Tocantins (Baião, Arumatheua; Dabbene, *Bol. Soc. Physis*, **1**, p. 363, 1914 (distribution in Argentina); Stone, *Proc. Acad. Nat. Sci. Phila.*, **65**, p. 210, 1913—Cariaquito, Jocopita (Manimo River), and Guinipa Village, Venezuela; Cherrie, *Sci. Bull., Mus. Brookl. Inst.*, **2**, p. 180, 1916—Orinoco region (nest and eggs); Chapman, *Bull. Amer. Mus. N. H.*, **36**, p. 615, 1917—Colombia (Dabeiba, Caldas, Las Lomitas, San Antonio, Gallera, Ricaurte, Salencio, Rio Frio, Cali, Miraflores, Barro Blanco, La Palma, La Candela, San Agustin, Andalucia, Fusugasugá, Aguadita, Palo Hueco, Buena Vista); Bangs and Penard, *Bull. Mus. Comp. Zool.*, **62**, p. 88, 1918—vicinity of Paramaribo and Lelydorp, Surinam; Bangs and Noble, *Auk*, **35**, p. 461, 1918—Perico and Bellavista, Peru; Stone, *Proc. Acad. Nat. Sci. Phila.*, **70**, p. 279, 1918—Tabernilla and Gatún, Panama (nest and eggs); Chubb, *Bds. Brit. Guiana*, **2**, p. 532, 1921—British Guiana; Chapman, *Bull. U. S. Nat. Mus.*, **117**, p. 121, 1921—Santa Ana and Idma, Peru; Todd and Carriker, *Ann. Carnegie Mus.*, **14**, p. 485, 1922—Santa Marta region, Colombia (La Concepción, San Francisco, Minca, Pueblo Viejo, Chirua); Williams, *Bull. Dept. Agric. Trin. Tob.*, **20**, p. 131, 1922—Trinidad (food, nest, eggs); Hellmayr, *Nov. Zool.*, **30**, p. 227, 1923—Corrientes (range); Delacour, *Ibis*, **1923**, p. 149—Guarico and Apure, Venezuela; Hallinan, *Auk*, **41**, p. 322, 1924—Gatún, New Culebra, Las Guacas, and Juan Mina, Panama; Wetmore, *Bull. U. S. Nat. Mus.*, **133**, p. 391, 1926—Chaco (Resistencia, Las Palmas), Formosa (Riacho Pilaga), and Paraguay (Puerto Pinasco); Stone, *Proc. Acad. Nat. Sci. Phila.*, **80**, p. 175, 1928—Pará and Castanhal, Brazil; Snethlage, *Bol. Mus. Nac. Rio de Janeiro*, **2**, No. 6, p. 60, 1926—São Bento, Maranhão; Hellmayr, *Field Mus. Nat. Hist., Zool. Ser.*, **12**, p. 283, 1929—Maranhão (Miritiba, Tury-assú, São Bento, Tranqueira, Fazenda Inhumá) and Ceará (Varzea Formosa); Griscom, *Bull. Mus. Comp. Zool.*, **69**, p. 189, 1929—Cana, Darien; Naumburg, *Bull. Amer. Mus. N. H.*, **60**, p. 376, 1930—Paraguay (Fort Wheeler) and Matto Grosso (Tapirapoan); Peters, *Bull. Mus. Comp. Zool.*, **71**, p. 342, 1931—Changuinola, Almirante, and Chiriquicito, Panama; Griscom, l.c., **72**, p. 371, 1932—Permé, Panama; idem, *Auk*, **50**, p. 300, 1933—Suretka Farm, Talamanca, Costa Rica.



*Range*.—Extreme northeastern Argentina (Corrientes; territories of Formosa and Chaco); Paraguay (locally); Brazil, from Matto Grosso and northern São Paulo (Rio Paraná) through Goyáz and the eastern states north to Pará (west to the Tapajóz); French, Dutch, and British Guiana; Venezuela, south to the Orinoco Valley; islands of Trinidad and Tobago; Peru (only recorded from the upper Marañón and the Huayabamba and Urubamba valleys); Colombia, north through Panama to eastern Costa Rica (Talamanca).<sup>1</sup>

105: Panama (Colón, 15); Colombia (Dabeiba, Rio Sucio, Antioquia, 1; Andalucia, eastern Andes, Huila, 1; Rio Cauca, 1; unspecified, 5); Venezuela (Caracas, Federal District, 14; Colón, Táchira, 4; Maracay, Aragua, 2; Cocollar, Sucre, 4; Margarita Island, Nueva Esparta, 7; Rio Chama, 2; Lake Valencia, 1); British Guiana (Georgetown, 2; unspecified, 4); Dutch Guiana (Paramaribo, 2); Brazil (Veadeiros, Goyáz, 5; Rio São Miguel, Goyáz, 1; Macaco Secco, Bahia, 8; Chapada, Matto Grosso, 4; Piraputanga, Matto Grosso, 1; Inhuma, Alto Parnahyba, Maranhão, 1; São Bento, Maranhão, 1; Tranqueira, Maranhão, 3; Tury-assú, Maranhão, 1; Aracatuba, São Paulo, 1; Varzea Formosa, Ceará, 1); Peru (Moyabamba, San Martin, 6); Argentina (Eldorado, Misiones, 2; Puerto Segundo, Misiones, 3; Caraguatay, Rio Paraná, Misiones, 2).

***Tachyphonus valeryi* (J. and E. Verreaux).<sup>2</sup> BLACK-SHOULDERED Tanager.**

<sup>1</sup> I have not been able to correlate the slight variations exhibited by birds from different parts of this vast range with any particular areas. At any rate, specimens from the Venezuelan north coast including Trinidad, Tobago, and Margarita (*beauperthuyi*) appear to me inseparable from a Guianan series, and even those from Panama do not seem to be distinguishable. The presence of some cinnamon-rufous feathers in the middle of the crown of black-plumaged males is a purely individual character and wholly independent of locality.

One hundred forty-nine specimens examined.

<sup>2</sup> *Tachyphonus valeryi* (J. and E. Verreaux): Adult male similar to *T. rufus*, but decidedly larger with proportionately weaker bill and without any white on the wings, the humeral area as well as the axillars and under wing coverts being black like the rest of the plumage. Wing 105, 112; tarsus, 28 (J. Berlioz, in litt.).

This species I have not seen, but Mr. J. Berlioz, who on my request reexamined the original examples in the Paris Museum, writes that the two birds differ from *T. rufus* by their larger dimensions and stronger legs, while the bill, though of the same size as in the allied species, appears proportionately smaller. Besides, there is no trace of white on the wings, both the humeral area and the under wing coverts being black like the rest of the plumage, which is in exact agreement with the original description. The describers erred, however, in indicating "l'Amérique centrale" as habitat of this obviously distinct species. The type as well as a second specimen are labeled as being from "Pebas, Haut Amazone. Voyage de Castelnau et Deville, 1847." The correctness of this locality is perhaps questionable. At any rate it seems rather strange that the species has not been found again by any other naturalist.



*Pyrrhota valeryi* J. and E. Verreaux, Rev. Mag. Zool., (2), 7, p. 351, 1855—  
"l'Amérique centrale," errore (the type in the Paris Museum is labeled  
"Pebas, Haut Amazone").

*Tachyphonus valerii* Sclater, Proc. Zool. Soc. Lond., 24, p. 114, 1856 (ex  
Verreaux).

Range.—Northeastern Peru (Pebas).

\***Tachyphonus coronatus** (Vieillot). RED-CROWNED TANAGER.

*Agelaius coronatus* Vieillot,<sup>1</sup> Tabl. Enc. Méth., Orn., 2, livr. 91, p. 711, 1822—  
based on "Tordo de bosque coronado y negro" Azara, No. 77; Paraguay.

*Tanagra coryphaeus* Lichtenstein, Verz. Doubl. Berliner Mus., p. 31, 1823—  
Brazil (descr. of male and female; types in Berlin Museum).

*Tachyphonus vigorsi* Swainson, Quart. Journ. Sci. Litt. Arts Roy. Inst., 20,  
No. 39, p. 63, Oct., 1825—southern Brazil (descr. of male; type obviously  
in coll. of W. Swainson, now probably in University Museum, Cambridge,  
England); Jardine and Selby, Illust. Orn., 1, Part 3, pl. 36, fig. 1, 1828.

*Tachyphonus coronatus* Burmeister, Syst. Uebers. Th. Bras., 3, p. 166, 1856—  
São Paulo and Santa Catharina; Sclater, Proc. Zool. Soc. Lond., 24, p.  
114, 1856—Paraguay and southern Brazil (monog.); idem, Cat. Coll.  
Amer. Bds., p. 85, 1862—Rio Grande [do Sul], Brazil; Pelzeln, Orn. Bras.,  
3, p. 213, 1870—Rio de Janeiro (Registo do Sai) and São Paulo (São Luis  
d'Almeida, Mattodentro, Ypanema, Cubatão); Reinhardt, Vidensk. Medd.  
Naturhist. Foren., 1870, p. 428—Minas Geraes (Lagõa Santa, Sete  
Lagõas), Rio de Janeiro (Nova Friburgo), and São Paulo (Campinas);  
Hamilton, Ibis, 1871, p. 303—São Paulo; Berlepsch, Journ. Orn., 21, p.  
244, 1873—Blumenau, Santa Catharina; Cabanis, l.c., 22, p. 82, 1874—  
Cantagallo, Rio; Pelzeln, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo,  
Rio; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 120, 1885—Rio Grande  
do Sul (Taquara, Picade Tocana, Arroio Grande, Linha Pirajá); Sclater,  
Cat. Bds. Brit. Mus., 11, p. 213, 1886—Minas Geraes (Santa Fé), Rio de  
Janeiro (Registo do Sai), São Paulo, and Rio Grande do Sul; Boucard  
and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio;  
Ihering, Ann. Est. Rio Grande do Sul, 16, p. 119, 1899—Mundo Novo,  
Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 153, 1899—São Paulo  
(Iguapé, Piquete); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova  
Friburgo, Rio; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 17,  
1900—Tebicuarí, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 363, 1907—  
São Paulo (Ypiranga, Piracicaba, Piquete, Alto da Serra, Itararé, Iguapé,  
São Paulo) and Minas Geraes (Vargem Alegre); Hartert and Venturi,  
Nov. Zool., 16, p. 173, 1909—Iguazú, Misiones; Chubb, Ibis, 1910, p.  
627—Sapucay, Paraguay; Dabbene, Anal. Mus. Nac. Buenos Aires, 18,  
p. 436, 1910—Santa Ana, Misiones; Berlepsch, Verh. 5th Intern. Orn.  
Kongr. Berlin, p. 1077, 1912 (range); Chrostowski, Compt. Rend. Soc.  
Scient. Varsovie, 5, pp. 486, 499, 1912—Vera Guarany, Rio Iguassú,  
Paraná; Bertoni, Anal. Soc. Cient. Arg., 75, p. 98, 1913—Alto Paraná,  
Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 250, 1913—Santa Ana,

<sup>1</sup> In Nouv. Dict. Hist. Nat., nouv. éd., 35, p. 535, 1819, quoted by Sclater  
as original reference of *T. coronatus*, the bird is entered only under Azara's Spanish  
vernacular name.

Misiones; idem, l.c., 1, p. 363, 1914 (range); Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay; Hellmayr, Verh. Orn. Ges. Bay., 12, p. 130, 1915—Braço do Sul, near Victoria, Espirito Santo; Ménégau, Rev. Franç. d'Orn., 11, p. 7, 1919—Villa Lutetia, near San Ignacio, Misiones; Lüderwaldt and Pinto da Fonseca, Rev. Mus. Paul., 13, p. 493, 1923—Iha dos Alcatrazes, São Paulo; Pereyra, El Hornero, 3, p. 171, 1923—Zelaya, Buenos Aires (probably escaped cage-bird); idem, l.c., 4, p. 27, 1927—Buenos Aires; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 193, 1926—Paraná (Marechal Mallet, São Domingo, Fazenda Concordia, Guarapuava, Vermelho, Therezina, Candido de Abreu); Holt, Bull. Amer. Mus. N. H., 57, p. 321, 1928—Monte Serrat, Serra do Itatiaya (nest and eggs); Pinto, Rev. Mus. Paul., 17, (2), p. 787, 1932—Valparaiso, São Paulo, and Sant' Anna do Paranaíba, Matto Grosso.

*Tachyphonus coryphaeus* Pelzeln, Reise Novara, Zool., 1, Vögel, p. 91, 1865—road to the Corcovado, Rio de Janeiro.

*Tachyphonus nigerrimus* (not *Tanagra nigerrima* Gmelin) Euler, Journ. Orn., 15, p. 408, 1867—Cantagallo (habits, nest, eggs).

*Tachyphonus cristatus* (not *Tanagra cristata* Linnaeus) White, Proc. Zool. Soc. Lond., 1882, p. 597—San Javier, Misiones.

*Tachyphonus coronatus pallidior* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 193, 1926—Paraná, Brazil (type, from Candido de Abreu, Paraná, in Warsaw Museum, cf. Sztolcman and Domaniewski, l.c., 6, p. 186, 1927).

**Range.**—Wooded region of southeastern Brazil, from southern Minas Geraes and Espirito Santo to Rio Grande do Sul, and adjacent parts of Paraguay (Tebicuari; Sapucay; Alto Paraná) and Argentina (Misiones).<sup>1</sup>

28: Brazil (Therezopolis, Rio de Janeiro, 4; Joinville, Santa Catharina, 6; Araçatuba, São Paulo, 1; Urucúm de Corumbá, Matto Grosso, 1); Argentina (Caraguatay, 5; Eldorado, Misiones, 6; Puerto Segundo, Misiones, 5).

**\**Tachyphonus cristatus cristatus* (Linnaeus).<sup>2</sup> SCARLET-CRESTED Tanager.**

<sup>1</sup> There is no difference whatsoever between specimens from Paraguay (Sapucay) and a large series from Brazil (Espirito Santo to Santa Catharina). Not one of the numerous females examined has the top of the head "nearly blackish," and I can only conclude that the specimen (from an unknown locality) of this peculiar coloration, which induced the late J. Sztolcman to separate the Paraná birds, is either an individual mutant or does not belong to the species at all.

*T. coronatus*, though allied to *T. rufus*, differs by lesser dimensions, much shorter bill, and in the male sex by much less extensive, hence completely concealed, white humeral patch and by possessing a bright red vertical spot, while the female may be distinguished by much less rufous coloring, particularly below. Yet they are probably geographical representatives, as their ranges seem to indicate.

**Additional material examined.**—Paraguay: Sapucay, 5.—Brazil: Braço do Sul, Espirito Santo, 7; Registo do Sai, Rio, 2; Corcovado, Rio, 1; Ypanema, São Paulo, 5; Cubatão, São Paulo, 1; Joinville, Santa Catharina, 19; Rio Grande do Sul, 1.

<sup>2</sup> Further subdivision of this race appears to be impracticable, at least with the available material. Birds from the Caura Valley (Venezuela) and the upper Rio Negro cannot be satisfactorily separated from a series of "Bogotá" skins

- Tanagra cristata* Linnaeus, Syst. Nat., 12th ed., 1, p. 317, 1766—based on “Le Tangara noir hupé de Cayenne” Brisson, Orn., 6, Suppl., p. 65, pl. 4, fig. 3 (=adult male); Cayenne (type in coll. of Madame de Bandeville).
- Tanagra gubernatrix* Temminck, Nouv. Rec. Pl. Col., livr. 102, Tabl. Méth., p. 40, 1839—based on “Tangara hupé de Cayenne” Daubenton, Pl. Enl., pl. 7, fig. 2; Cayenne.
- Lanio cristatus* Lafresnaye, Rev. Zool., 9, p. 204, 1846 (crit.).
- Tachyphonus cristatus* Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—“Bogotá”; idem, l.c., 24, p. 115, 1856—part, Cayenne and “Bogotá”; Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 31, 1857—Cayenne; Pelzeln, Orn. Bras., 3, p. 213, 1870—part, Marabitanas and Barcellos, Rio Negro (spec. examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 262—Pebas, Peru; Taczanowski, Orn. Pér., 2, p. 502, 1884—Pebas; Sclater, Cat. Bds. Brit. Mus., 11, p. 210, 1886—part, subsp. typica, spec. a, b, e-j, Cayenne, Guia (Rio Negro), Peru (Pebas, Iquitos), Ecuador (Sarayacu), and “Bogotá”; Allen, Bull. Amer. Mus. N. H., 2, p. 71, 1889—Napo, Ecuador; Riker and Chapman, Auk, 7, p. 267, 1890—Santarém; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Rio Zamora, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 22, 1902—Venezuela, Caura River (Suapuré, Nicare, La Prición) (crit.); Ihering, Cat. Faun. Braz., 1, p. 362, 1907—part, Rio Negro, Guiana, and Venezuela; Berlepsch, Nov. Zool., 15, p. 116, 1908—Ipousin, Approuague, French Guiana; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1075, 1912—Cayenne; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Rio Suno, Ecuador.
- Tachyphonus cristatellus* Sclater, Cat. Coll. Amer. Bds., p. 86, 1862—“New Granada”=Bogotá (type in coll. of P. L. Sclater, now in British Museum); Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, pp. 571, 977—Guia (Rio Negro) and Pebas, Peru (crit.).
- Tachyphonus cristatus cristatus* Hellmayr, Nov. Zool., 12, p. 275, 1905—Cayenne (crit.); idem, l.c., 14, p. 30, 1907—Obidos, Brazil (crit.); Ménégau, Bull. Mus. Hist. Nat. Paris, 14, p. 9, 1908—French Guiana; Chapman, Bull. Amer. Mus. N. H., 55, p. 680, 1926—eastern Ecuador (Rio Suno and below San José; crit.); Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 241, 1932—Sarayacu, Ecuador.
- Tachyphonus cristatus cristatellus* Hellmayr, Nov. Zool., 12, p. 275, 1905—part, “Bogotá,” Peru (Loretoyacu, Pebas), northwestern Brazil (Marabitanas, Barcellos), and Venezuela (Caura) (crit.); Berlepsch, Verh. 5th (cristatellus), though the latter show a remarkable variation in the coloration and extent of the ochraceous gular spot, agreeing in that respect with specimens from the north bank of the Marañón. Two (out of three) adult males from French Guiana have the crest somewhat shorter and of a paler, less reddish orange color, and the gular spot very small and dark. However, two from eastern Ecuador are practically identical, while two others from Obidos, which should doubtless belong to the typical *cristatus* of Cayenne, cannot be distinguished from numerous “Bogotá” skins.
- Additional material examined.*—French Guiana: Cayenne, 3; Saint Laurent du Maroni, 1; Ipousin, 1.—Brazil: Obidos, 2; Barcellos, Rio Negro, 1; Marabitanas, Rio Negro, 4.—Venezuela: Caura Valley, 11.—Colombia: “Bogotá,” 16.—Ecuador: Sarayacu, 2.—Peru: Iquitos, 3; Rio Tigre, 2; Loretoyacu, 1.

Intern. Orn. Kongr. Berlin, p. 1075, 1912 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 453, 1914—Obidos and Rio Jamundá (Faro), Brazil; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 181, 1916—Suapuré and La Unión, Caura River, Venezuela.

*Range*.—French Guiana; northern Brazil, north of the Amazon (Obidos; Rio Jamundá; Rio Negro; (?)Ega, Rio Solimões); southern Venezuela (Caura and Orinoco valleys), west to the eastern base of the eastern Andes of Colombia and thence south through eastern Ecuador to the north bank of the Rio Marañón, northern Peru (Iquitos, Pebas, Loretoyacu).

1: Colombia ("Bogotá," 1).

**Tachyphonus cristatus intercedens** Berlepsch.<sup>1</sup> ORANGE-CRESTED TANAGER.

*Tachyphonus intercedens* Berlepsch, Ibis, (4), 4, p. 113, 1880—"Orinoco district or Trinidad" (descr. of male; type in Berlepsch Collection, now in Frankfurt Museum, examined); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1076, 1912—British Guiana (Bartica Grove, Camacusa, Merumé Mountains, River Atapuraw) and (?)Orinoco delta; Chubb, Bds. Brit. Guiana, 2, p. 536, 1921—Ituribisci River, Supenaam, Anarica River, Arawai River, Great Falls of the Demerara, Merumé Mountains, Caramang River, and Bartica Grove.

*Tachyphonus cristatus* (not *Tanagra cristata* Linnaeus) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 668, "1848" [=1849]—coast of British Guiana; Sclater, Proc. Zool. Soc. Lond., 24, p. 115, 1856—part, British Guiana; Salvin, Ibis, 1885, p. 212—Bartica Grove and Atapuraw River, British Guiana.

[*Tachyphonus cristatus*] subsp. *intercedens* Sclater, Cat. Bds. Brit. Mus., 11, p. 211, 1886—British Guiana (Bartica Grove, Merumé Mountains, Atapuraw River).

*Tachyphonus cristatus intercedens* Hellmayr, Nov. Zool., 12, p. 275, 1905 (crit.); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 182, 1916—"Orinoco delta."

*Range*.—British Guiana, chiefly west of the Demerara, and possibly the adjoining section of Venezuela (Orinoco delta).

<sup>1</sup>*Tachyphonus cristatus intercedens* Berlepsch: Differs from *T. c. cristatus* (ex Cayenne) in the male sex by having the crest orange yellow (without any reddish hue), while the female is more olivaceous above with the forehead and hindneck less grayish. Wing, 79–82; tail, 71–74.

Though well-marked, this form is clearly a geographic representative of *T. cristatus*. Its range seems to be peculiarly restricted. All the specimens we have seen are from western British Guiana, but Bangs and Penard (Bull. Mus. Comp. Zool., 62, p. 88, 1918) record it from the vicinity of Paramaribo and Altonaweg in Surinam. The type, a skin of the so-called "Orinoco" make agrees with specimens from Bartica Grove.

*Material examined*.—British Guiana: Bartica Grove, 4; Camacusa, 1; Merumé Mountains, 2.—"Orinoco district," 1 (the type).



**Tachyphonus cristatus huarandosae** Chapman.<sup>1</sup> HUARANDOSA TANAGER.

*Tachyphonus cristatus huarandosae* Chapman, Amer. Mus. Nov., 187, p. 8, 1925—Huarandosa, Chinchipe Valley, northwestern Peru (type in the American Museum of Natural History, New York).

*Range*.—Tropical zone of northwestern Peru, in the valley of the Rio Chinchipe, an affluent of the upper Marañón.

**Tachyphonus cristatus madeirae** Hellmayr.<sup>2</sup> RIO MADEIRA SCARLET-CRESTED TANAGER.

*Tachyphonus cristatus madeirae* Hellmayr, Nov. Zool., 17, p. 277, 1910—Calama, Rio Madeira, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1075, 1912 (range); Snethlage, Bol. Mus. Goeldi, 8, p. 453, 1914 (range); Naumburg, Bull. Amer. Mus. N. H., 60, p. 378, 1930—Rio Roosevelt and Barão Melgaço, northern Matto Grosso.

*Tachyphonus cristatus* (not *Tanagra cristata* Linnaeus) Pelzeln, Orn. Bras., 3, p. 213, 1870—part, Engenho do Gama, Matto Grosso, and Borba, Rio Madeira (spec. examined); Ihering, Cat. Faun. Braz., 1, p. 362, 1907—part, Borba.

*Tachyphonus cristatus cristatellus* (not of Sclater) Hellmayr, Nov. Zool., 12, p. 275, 1905—part, Borba and Engenho do Gama.

*Tachyphonus cristatus* subsp. Hellmayr, Nov. Zool., 14, p. 349, 1907—Humaytá, Rio Madeira.

(?)*Tachyphonus cristatus* Sclater, Proc. Zool. Soc. Lond., 25, p. 264, 1857—Ega, Rio Solimões; idem, Cat. Bds. Brit. Mus., 11, p. 210, 1886—part, subsp. typica, spec. d, Ega.

<sup>1</sup>*Tachyphonus cristatus huarandosae* Chapman: Similar to *T. c. cristatus*, but adult male with longer crest (from base of bill to tip about 31–32 mm. long) and smaller ochraceous rump-patch and gular spot.

According to Chapman, this race, which we have not seen, differs from all the others by its longer crest and by having the gular mark reduced to a narrow line. The last-named character, however, should be used with caution for racial distinction, since I find much individual variation in birds from “Bogotá” and the vicinity of Iquitos, some of which have the gular spot much smaller than others from the same locality.

<sup>2</sup>*Tachyphonus cristatus madeirae* Hellmayr: Nearest to, and agreeing with, *T. c. brunneus* in grenadine red to scarlet crest with little, if any, buff lateral border, but crest-feathers decidedly shorter—about the same length as in typical *cristatus*—and gular patch much deeper ochraceous. Wing (male), 82–86; tail, 70–76.

The crest averages somewhat darker than in east Brazilian males, though one from Matto Grosso cannot be told apart. While we have only seen specimens from the Rio Madeira and its head-waters, the range of this form is no doubt much more extensive and, judging by analogy, may be expected to extend east to the Tapajóz and north to the Solimões, *T. cristatus* having been recorded by Sclater (Proc. Zool. Soc. Lond., 25, p. 264, 1857) from Ega, on the south side of that river.

*Material examined*.—Brazil: Rio Madeira, Borba, 3; Calama, 5; Humaytá, 1; Engenho do Gama, Rio Guaporé, Matto Grosso, 4.

*Range*.—Western Brazil, south of the Amazon, from the Rio Madeira south to Matto Grosso (Barão Melgaço, Rio Roosevelt; Engenho do Gama, Rio Guaporé), extending east probably to the left bank of the Rio Tapajóz and north to the Rio Solimões.

\**Tachyphonus cristatus brunneus* (Spix). SPIX'S SCARLET-CRESTED TANAGER.

*Tanagra brunnea* Spix, Av. Spec. Nov. Bras., 2, p. 37, pl. 43, fig. 2 (young male), 1825—in provincia Rio de Janeiro (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 672, 1906).

*Lanio vieillotii* Lafresnaye, Rev. Zool., 9, p. 204, 1846—name tentatively proposed for *Lanio cristatus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 17, p. 305, 1817 (descr. of an adult male collected by Delalande, Jr., in "Brésil," viz. near Rio de Janeiro).

[*Tachyphonus cristatus*] subsp. *brasiliensis* Sclater, Cat. Bds. Brit. Mus., 11, p. 211, 1886—Bahia, Nova Friburgo (Rio), São Paulo, "Rio Claro, Goyáz," and "Pelotas, Rio Grande do Sul" (no type specified).<sup>1</sup>

*Tanagra cristata* (not of Linnaeus) Wied, Beitr. Naturg. Bras., 3, (1), p. 474, 1830—Rio de Janeiro, Serra dos Orgãos, Serra de Inua, etc., southeastern Brazil.

*Tachyphonus cristatus* Swainson, Quart. Journ. Sci. Litt. Arts Roy. Inst., 20, No. 39, p. 66, 1826—Brazil (descr.); Sclater, Proc. Zool. Soc. Lond., 24, p. 115, 1856—part, Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 165, 1856—Rio de Janeiro; Sclater, Cat. Coll. Amer. Bds., p. 85, 1862—Brazil; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 571—Pará; Pelzeln, Orn. Bras., 3, p. 213, 1870—part, Rio de Janeiro, Sapitiba, and Praya do Sai, Rio (spec. examined); Cabanis, Journ. Orn., 22, p. 82, 1874—Cantagallo, Rio; Boucard and Berlepsch, The Humming Bird, 2, p. 43, 1892—Porto Real, Rio; Ihering, Rev. Mus. Paul., 3, p. 153, 1899—São Paulo (Iguapé); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo; Ihering, Cat. Faun. Braz., 1, p. 362, 1907—part, Pará; Sneath, Journ. Orn., 55, p. 294, 1907—Pará, Marajó, and Maranhão (Juta-hiza); (?)idem, l.c., 56, p. 499, 1908—Ilha do Coatá and Villa Braga, Rio Tapajóz.

*Tachyphonus cristatus brunneus* Hellmayr, Nov. Zool., 12, pp. 274, 275, 1905—Igarapé-Assú, Pará (crit., range); Ihering, Cat. Faun. Braz., 1, p. 362, 1907—São Paulo (Ubatuba, Iguapé), Espirito Santo (Porto Cachoeiro), and Bahia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1075, 1912—Pará to São Paulo and "Goyáz" (errore); Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 11, 87, 1912—Ipitanga and Peixe-Boi, Pará (Pará localities); Sneath, Bol. Mus. Goeldi, 8, p. 453, 1914—Pará, Providencia, Peixe-Boi, Rio Tocantins (Cametá, Baião), (?)Rio Tapajóz (Boim, Villa Braga, Coatá), Rio Jamauchim (Santa Helena), Marajó (Santa Anna), and Maranhão; Beebe, Zoologica (N.Y.), 2, p. 101, 1916—Utinga, Pará; Sneath, Bol. Mus. Nac. Rio de

<sup>1</sup> Spec. h, Engenho do Gama, is referable to *T. c. madeirae*.

Janeiro, 2, No. 6, p. 60, 1926—Tury-assú, Maranhão; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 175, 1928—Rio Inhangapy and Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 284, 1929—Tury-assú, Maranhão.

*Range*.—Wooded coast region of eastern Brazil, from São Paulo to Pará (west to the Tapajóz?).<sup>1</sup>

5: Brazil (Porto Real, "Rio," 1; Tury-assú, Maranhão, 4).

### **Tachyphonus nattereri** Pelzeln.<sup>2</sup> NATTERER'S TANAGER.

*Tachyphonus nattereri* Pelzeln, Orn. Bras., 3, pp. 214, 328, 1870—Villa Maria and Salto do Girão, Matto Grosso (type, from Villa Maria, in Vienna Museum examined); Sclater, Ibis, 1885, p. 273, pl. 6, fig. 1 (male)—Villa Maria (crit.); idem, Cat. Bds. Brit. Mus., 11, p. 213, 1886—Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 363, 1907—Matto Grosso; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1076, 1912—Villa Maria; Naumburg, Bull. Amer. Mus. N. H., 60, p. 379, 1930—Villa Maria.

*Range*.—Western Brazil, in State of Matto Grosso (Villa Maria, Rio Paraguay; Salto do Girão, Rio Madeira).

### \***Tachyphonus surinamus surinamus** (Linnaeus). FULVOUS-CRESTED TANAGER.

*Turdus surinamus* Linnaeus, Syst. Nat., 12th ed., 1, p. 297, 1766—based on "Le Merle de Surinam" Brisson, Orn., 6, Suppl., p. 46, pl. 3, fig. 1; Surinam (type in coll. of Abbé Aubry).

*Tanagra martialis* Temminck, Man. d'Orn., (2nd ed.), 1, p. lxx, 1820—based on "Tangara hupé, de la Guiane" Daubenton, Pl. Enl., pl. 301, fig. 2.

*Tachyphonus olivaceus* Swainson, Quart. Journ. Sci. Litt. Arts Roy. Inst., 20, No. 39, p. 63, Oct., 1825—"Buenos Aires," errore (descr. of female; type in coll. of W. Swainson, now probably in University Museum, Cambridge, England).

*Tachyphonus desmaresti* Swainson, Quart. Journ. Sci. Litt. Arts Roy. Inst., 20, No. 39, p. 67, Oct., 1825—"Buenos Ayres," errore (descr. of male);

<sup>1</sup> Specimens from Maranhão and Pará have the crest on average darker scarlet, the gular spot rather larger, and the wings very slightly longer, thus pointing in the direction of *T. c. madeirae*. How far the range of the form extends to the west, I am unable to state owing to lack of material, though I think that the Tapajóz might form the dividing line between *brunneus* and *madeirae*.

*Additional material examined*.—São Paulo: São Sebastião, 3.—Rio de Janeiro: Sapitiba, 1; Rio de Janeiro, 5.—Bahia, 14.—Pernambuco: São Lourenço, 2.—Pará: Benevides, 1; Igarapé-Assú, 2; Peixe-Boi, 2; Ipitanga, Rio Acará, 1.

<sup>2</sup> *Tachyphonus nattereri* Pelzeln, a very distinct species, bears a superficial resemblance to *T. l. nitidissimus*, but is larger; the much more extensive vertical patch is uniform orange-rufous, the feathers of the crown being considerably lengthened so as to form a conspicuous crest as in *T. cristatus*; the rump is suffused with dull orange-rufous; the bill much more slender. The female is closely similar to that of *T. cristatus*, but smaller, more rufescent underneath, and has the rump and upper tail coverts much more rufous. Wing, 73, (female) 71; tail, 64; bill, 13.

*Material examined*.—Matto Grosso: Villa Maria, 1 (the type); Salto do Girão, 1.

type in coll. of W. Swainson, now probably in University Museum, Cambridge, England).

*Tachyphonus surinamensis* "Briss." Lafresnaye, Rev. Zool., 9, p. 202, 1846—based on Daubenton, Pl. Enl., pl. 301, fig. 2, and "Le Merle de Surinam" Brisson, Orn., 6, Suppl., p. 46, pl. 3, fig. 1; Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 81, 1851 (diag.).

*Tachyphonus ochropygos* (Lichtenstein MS.) Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 668, "1848" [=1849]—Cayenne (type in Berlin Museum).

*Tachyphonus surinamus* Sclater, Proc. Zool. Soc. Lond., 24, p. 114, 1856—part, Cayenne and British Guiana (descr.); Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 31, 1857—Cayenne; Sclater, Cat. Coll. Amer. Bds., p. 85, 1862—part, spec. a, b, Cayenne; Pelzeln, Orn. Bras., 3, p. 213, 1870—part, Barra do Rio Negro=Manáos, Brazil (spec. examined); Salvin, Cat. Strickl. Coll., p. 195, 1882—Cayenne; idem, Ibis, 1885, p. 212—British Guiana (Bartica Grove, Merumé Mountains, Camacusa, Atapuraw River); Sclater, Cat. Bds. Brit. Mus., 11, p. 211, 1886—part, subsp. typica, spec. a-m, Bartica Grove, Merumé Mountains, Atapuraw River, Cayenne, and Maroni River; Berlepsch and Hartert, Nov. Zool., 9, p. 22, 1902—Nicare and Suapuré, Caura River, Venezuela; Ménégau, Bull. Mus. Hist. Nat. Paris, 10, p. 182, 1904—Lumière River and Camopi, French Guiana; Ihering, Cat. Faun. Braz., 1, p. 362, 1907 (range); Berlepsch, Nov. Zool., 15, pp. 117, 317, 1908—Ipousin, Approuague River, and French Guiana localities; Penard, Vog. Guyana, 2, p. 454, 1910—Surinam; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1076, 1912 (range); Stone, Proc. Acad. Nat. Sci. Phila., 65, p. 211, 1913—Vagre River, Orinoco delta, Venezuela; Sneath, Bol. Mus. Goeldi, 8, p. 454, 1914—Obidos (range); Chubb, Bds. Brit. Guiana, 2, p. 535, 1921—Ituribisci River, Supinaam, Makauria River, Abary River, Tiger Creek, Arwey River, Merumé Mountains, Caramang River, and Bartica.

*Tachyphonus surinamus surinamus* Hellmayr, Nov. Zool., 13, p. 358, 1906 (range); Ménégau, Bull. Mus. Hist. Nat. Paris, 14, p. 9, 1908—French Guiana; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 182, 1916—Guanoco, Orinoco delta, and Suapuré, Caura River, Venezuela; Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 88, 1918—Lelydorp, Surinam.

*Range*.—French, Dutch, and British Guiana, west to the adjoining parts of Venezuela (Orinoco delta and Caura Valley), south to the north bank of the lower Amazon, Brazil (Obidos, Manáos).<sup>1</sup>

4: British Guiana (Demerara River, Hyde Park, 1; Mazaruni River, 1; unspecified, 1); Dutch Guiana (Javaweg, Pará district, Surinam, 1).

<sup>1</sup> Birds from eastern Venezuela and Manáos agree with a Guianan series.

*Additional material examined*.—French Guiana: Ipousin, 1; Saint-Jean-du-Maroni, 4; Saint-Laurent-du-Maroni, 1.—Dutch Guiana: near Paramaribo, 5.—British Guiana: Bartica Grove, 4; Camacusa, 3; Merumé Mountains, 3.—Venezuela: Guanoco, Orinoco delta, 3; Caura River (Suapuré, Nicare), 15.—Brazil: Manáos, 7.



**\*Tachyphonus surinamus insignis** Hellmayr.<sup>1</sup> PARÁ FULVOUS-CRESTED TANAGER.

*Tachyphonus surinamus insignis* Hellmayr, Nov. Zool., 13, p. 357, 1906—Bemfica, Pará, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); Ihering, Cat. Faun. Braz., 1, p. 363, 1907—Pará to Borba; Hellmayr, Nov. Zool., 17, p. 276, 1910—Borba, Rio Madeira (crit.); idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 12, 87, 1912—Ipitinga and Peixe-Boi, Pará (Pará localities); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1076, 1912—Pará to Borba, Rio Madeira; Sneath, Bol. Mus. Goeldi, 8, p. 454, 1914—Pará, Providencia, Ananindeua, Benevides, Apehú, Santa Isabel, Peixe-Boi, Santo Antonio do Prata, Rio Macujubim, and Rio Tocantins (Cametá); Beebe, Zoologica (N.Y.), 2, p. 101, 1916—Utinga, Pará; Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 175, 1928—Pará.

*Tachyphonus surinamus* (not *Turdus surinamus* Linnaeus) Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 571—part, Pará; Pelzeln, Orn. Bras., 3, p. 213, 1870—part, Borba (Rio Madeira) and Pará (spec. examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 211, 1886—part, subsp. *typica*, spec. n. o, Pará; Hellmayr, Nov. Zool., 12, p. 275, 1905—Igarapé-Assú, Pará; Sneath, Journ. Orn., 55, p. 295, 1907—Pará, Rio Macujubim, and Santo Antonio do Prata, Brazil (crit.).

*Range*.—Northern Brazil, south of the Amazon, from Pará to the lower Rio Madeira (Borba).

3: Brazil (Utinga, Pará, 2; Santarém, 1).

**\*Tachyphonus surinamus brevipes** Lafresnaye.<sup>2</sup> WESTERN FULVOUS-CRESTED TANAGER.

*Tachyphonus brevipes* Lafresnaye, Rev. Zool., 9, p. 206, 1846—Colombia—"Bogotá" (descr. of female; types in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull.

<sup>1</sup> *Tachyphonus surinamus insignis* Hellmayr: Similar to *T. s. surinamus*, but adult male with light-colored patch on sides of breast more extensive, as well as darker, antimony yellow to ochraceous-buff suffused with tawny; rump deeper ochraceous-buff; vertical stripe darker, tinged with tawny; female not certainly distinguishable. Wing (male), 82–86; tail, 73–78.

Three males from Borba show the racial characters even more strongly developed than Pará birds.

*Additional material examined*.—Pará: Bemfica, 1; Igarapé-Assú, 3; Santo Antonio do Prata, 2; Peixe-Boi, 6; Ipitinga, Rio Acará, 2; Pará, 2.—Amazonas: Borba, Rio Madeira, 3.

<sup>2</sup> *Tachyphonus surinamus brevipes* Lafresnaye: Similar to *T. s. surinamus*, but adult male with rump deeper ochraceous and the light-colored patch on sides of breast much reduced and pure white (without any buffy suffusion); female deeper ochraceous buff underneath, the abdomen and flanks strongly tinged with yellow ochre.

Birds from various parts of the range, apart from the usual amount of individual variation, agree well together.

*Additional material examined*.—Colombia: "Bogotá," 14.—Ecuador: Coca, Rio Napo, 1; Rio Napo, 2.—Brazil: Marabitanas, Rio Negro, 5; Rio Içanna, 2; Teffé, Rio Solimões, 1.—Peru: Iquitos, 3; Chyavetas, 3.

Mus. Comp. Zool., 70, p. 411, 1930); Sclater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá."

*Tachyphonus napensis* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 42, 1864—Rio Napo, eastern Ecuador (descr. of male; type in coll. of G. N. Lawrence, now in the American Museum of Natural History, New York); Sclater, Ibis, 1885, p. 273 (crit.).

*Tachyphonus surinamus* (not *Turdus surinamus* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 24, p. 114, 1856—part, Guia, Rio Negro; idem, l.c., 25, p. 265, 1857—Ega, Rio Solimões, Brazil; idem, Cat. Coll. Amer. Bds., p. 85, 1862—part, spec. c, d, Guia and "Rio Amazonas"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 571—part, Guia, Rio Negro; idem, l.c., 1867, pp. 749, 754—Xeberos and Chyavetas, Peru; Pelzeln, Orn. Bras., 3, p. 213, 1870—part, Marabitanas and Rio Içanna, Rio Negro, Brazil (spec. examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 262—Xeberos and Chyavetas, Peru; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Rio Santiago, Ecuador; Goodfellow, Ibis, 1901, p. 468—mouth of the Coca, Ecuador; Ihering, Cat. Faun. Braz., 1, p. 362, 1907—part, Rio Negro.

*Tachyphonus surinamus napensis* Taczanowski, Orn. Pér., 2, p. 503, 1884—Peru (Xeberos, Chyavetas, Moyobamba, Iquitos); Sclater, Ibis, 1885, p. 273—Upper Amazonia (crit.); Hellmayr, Nov. Zool., 13, p. 358, 1906—eastern Colombia and upper Rio Negro to Peru (crit.); idem, l.c., 14, p. 45, 1907—Teffé, Rio Solimões, Brazil; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1076, 1912 (range).

*Tachyphonus surinamus* subsp. *napensis* Sclater, Cat. Bds. Brit. Mus., 11, p. 212, 1886—Guia (Rio Negro), Iquitos, Ega, Sarayacu (Ecuador), and "Bogotá."

*Tachyphonus surinamus surinamus* Chapman, Bull. Amer. Mus. N. H., 36, p. 616, 1917—Villavicencio and La Morelia, Colombia.

*Tachyphonus surinamus brevipes* Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 37, 1919 (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 681, 1926—eastern Ecuador (Napo, Rio Suno) and Peru (Pomará, Rio Marañón); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 451, 1930—Puerto Bermúdez, Peru.

*Range*.—Tropical zone of Upper Amazonia, from the eastern base of the eastern Andes of Colombia and the upper stretches of the Rio Negro south through eastern Ecuador and northwestern Brazil to eastern Peru (as far south as Puerto Bermúdez, Department of Junín).

3: Colombia ("Bogotá," 2); Peru (Puerto Bermúdez, 1).

\**Tachyphonus phoenicius* Swainson. RED-SHOULDERED TANAGER.

*Tachyphonus phoenicius* Swainson, Anim. Menag., p. 311, Dec. 31, 1837—believed to be from "Fernando Po, on the African coast," errore<sup>1</sup> (type

<sup>1</sup> Berlepsch (Nov. Zool., 15, p. 116, 1908) at first suggested eastern Peru, but several years later (Verh. 5th Intern. Orn. Kongr. Berlin, p. 1075, 1912) proposed "Cayenne" as an appropriate type locality.

in coll. of T. Horsfield, of Everton, near Liverpool, its present location unknown); Hellmayr, *Nov. Zool.*, **17**, p. 276, 1910—Borba, Rio Madeira; Naumburg, *Bull. Amer. Mus. N. H.*, **60**, p. 378, 1930—Vilhena, northern Matto Grosso.

*Tachyphonus saucius* Strickland, *Ann. Mag. Nat. Hist.*, **13**, p. 419, 1844—"Colombia or Central America," errore (descr. of male; type in coll. of H. E. Strickland, now in University Museum, Cambridge, England; cf. Salvin, *Cat. Strickl. Coll.*, p. 194, 1882).

*Tachyphonus phoeniceus* Sclater, *Proc. Zool. Soc. Lond.*, **24**, p. 116, 1856—Borba, Brazil (descr. of male and female); Sclater and Salvin, *l.c.*, 1867, pp. 749, 754—Xeberos, Peru; idem, *Exot. Orn.*, p. 65, pl. 33 (male, female), 1867—Borba and Xeberos; Pelzeln, *Orn. Bras.*, **3**, p. 214, 1870—Borba (Rio Madeira), Brazil, and San Carlos (Rio Guainia), Venezuela (spec. examined); Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1873, p. 262—Xeberos, Peru; Salvin and Godman, *Ibis*, 1883, p. 203—Roraima, British Guiana; Taczanowski, *Orn. Pér.*, **2**, p. 505, 1884—Peru (Xeberos and "Cuzco"); Salvin, *Ibis*, 1885, p. 212—Merumé Mountains and Roraima, British Guiana; Sclater, *Cat. Bds. Brit. Mus.*, **11**, p. 208, 1886—Peru (Xeberos), British Guiana (Merumé Mountains, Roraima), and Cayenne; Ihering, *Cat. Faun. Braz.*, **1**, p. 361, 1907 (range); Berlepsch, *Nov. Zool.*, **15**, p. 116, 1908—Cayenne; Penard, *Vog. Guyana*, **2**, p. 453, 1910—Surinam; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1075, 1912 (range); Sneath, *Journ. Orn.*, **61**, p. 520, 1913—Rio Tapajóz; idem, *Bol. Mus. Goeldi*, **8**, p. 452, 1914—Boim, Rio Tapajóz, Brazil; Chubb, *Bds. Brit. Guiana*, **2**, p. 533, 1921—British Guiana (Abary River, Roraima, Merumé Mountains); Chapman, *Bull. Amer. Mus. N. H.*, **63**, p. 132, 1931—Mount Duida, Venezuela.

*Range.*—Tropical zone of French, Dutch, and British Guiana; northern Brazil, east to the Rio Tapajóz (Boim), south to northern Matto Grosso (Vilhena); southern Venezuela (Mount Duida; San Carlos, Rio Guainia); eastern Peru (Xeberos).<sup>1</sup>

2: British Guiana (Merumé Mountains, 2).

**\*Tachyphonus metallactus** Oberholser. YELLOW-CRESTED TANAGER.

*Tanagra rufiventer* (not *Tanagra rufiventris* Vieillot, 1819) Spix, *Av. Bras. Spec. Nov.*, **2**, p. 37, pl. 50, fig. 1 (=male), 1825—"in sylvis Parae," errore, hab. subst. São Paulo de Olivença, Rio Solimões, Brazil, auct. Hellmayr, 1920 (type in Munich Museum examined; cf. Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, **22**, No. 3, p. 672, 1906).

*Tachyphonus metallactus* Oberholser, *Proc. Biol. Soc. Wash.*, **32**, p. 240, Dec., 1919—new name for *Tanagra rufiventer* Spix, preoccupied; Hellmayr, *Arch. Naturg.*, **85**, A, Heft 10, p. 28, 1920—Yahuarmayo, San Gaban, and Chaquimayo, Carabaya, Peru.

<sup>1</sup> "Cuzco" is an impossible locality for this tropical species, unless it means the department and not the city of that name.

*Additional material examined.*—British Guiana: Merumé Mountains, 6; Roraima, 2.—Brazil: Borba, Rio Madeira, 4.—Venezuela: San Carlos, Rio Guainia, 1.

*Tachyphonus rufiventer* Strickland, Contrib. Orn., 3, p. 49, pl. 50 (male), 1850—Peru (descr. of male); Sclater, Proc. Zool. Soc. Lond., 24, p. 115, 1856—eastern Peru (Sarayacu, Chamicuros); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1077, 1912—Peru, Bolivia, northwestern Brazil, and (?) eastern Ecuador (?Rio Napo); Chapman, Bull. U. S. Nat. Mus., 117, p. 121, 1921—Rio Cosireni, Urubamba, Peru; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 452, 1930—Vista Alegre, Huánuco, Peru.

*Tachyphonus rufiventris* Sclater, Proc. Zool. Soc. Lond., 25, p. 264, 1857—Rio Javarri; idem, Cat. Coll. Amer. Bds., p. 86, 1862—Upper Amazon and "Rio Napo"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—Sarayacu, Peru; idem, l.c., 1867, p. 749—Yurimaguas and Chyavetas, Peru; idem, l.c., 1873, p. 185—Cosnipata, Dept. Cuzco, Peru; idem, l.c., 1873, p. 262—Peru (Sarayacu, Chamicuros, Yurimaguas, Chyavetas, Rio Javarri); Taczanowski, l.c., 1874, p. 513—Monterico, Peru; Sclater and Salvin, l.c., 1879, p. 601—Nairapi, Bolivia; Taczanowski, l.c., 1882, p. 14—Yurimaguas, Peru; idem, Orn. Pér., 2, p. 503, 1884—Peru (Rio Javarri, Monterico, Sarayacu, Chamicuros, Yurimaguas, Chyavetas, Huambo, Moyobamba, Cosnipata); Sclater, Cat. Bds. Brit. Mus., 11, p. 213, 1886—Peru (Chamicuros, Ucayali), Ecuador (?Rio Napo), and Bolivia (Nairapi); Berlepsch, Journ. Orn., 37, p. 297, 1889—Yurimaguas, Peru; idem and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 345—La Merced and Borgoña, Dept. Junín, Peru; idem, Orn. 13, p. 111, 1906—Huaynapata, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 10, 1911—Nuevo Loreto (east of Tayabamba), Peru; Sneath, Bol. Mus. Goeldi, 8, p. 454, 1914 (range).

*Range.*—Tropical zone of Upper Amazonia, from eastern Peru (south of the Marañón) and the adjoining parts of Brazil south to northern Bolivia (Nairapi, Department of La Paz).<sup>1</sup>

5: Peru (Rioja, 1; Vista Alegre, Dept. Huánuco, 4).

\**Tachyphonus luctuosus luctuosus* Lafresnaye and d'Orbigny.

LESSER WHITE-SHOULDERED TANAGER.

*Tachyphonus luctuosus* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 29, 1837—Guarayos, Bolivia (descr. of male and female; types in Paris Museum examined); Sclater, Proc. Zool. Soc. Lond., 22, p. 115, 1854—Quijos, eastern Ecuador; idem, l.c., 23, p. 156, 1855—"Bogotá"; idem, l.c., 24, p. 114, 1856—part, Bolivia, eastern Peru, Quixos (Ecuador), "Bogotá," Trinidad, and "Tobago" (monog.); idem, Cat. Coll. Amer. Bds., p. 85, 1862—part, spec. a-c, f-g, Trinidad, Bolivia, and "New Grenada"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Pilar [Sucre], Venezuela; Finsch, l.c., 1870, p. 582—Trinidad (crit.); Pelzeln, Orn. Bras., 3, p. 213, 1870—Matto Grosso (Portão do Pilato, Villa Maria, Engenho do Gama, Salto do Girão) and Amazonas (Borba, Rio Madeira); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 601—Guarayos, Bolivia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1,

<sup>1</sup> The record from "Rio Napo, eastern Ecuador" is open to doubt.

*Additional material examined.*—Peru: Huambo, 1; La Merced, 1; Borgoña, 1; Yahuar Mayo, 3; San Gaban, 3; Chaquimayo, 2.—Brazil: 1 (the type).



- p. 310, 1883—part, South America (Colombia to Bolivia and Brazil); Salvin, Ibis, 1885, p. 211—Bartica Grove, British Guiana; Selater, Cat. Bds. Brit. Mus., 11, p. 208, 1886—part, spec. h-j, o-u, "Bogotá," Bolivia, Brazil (Engenho do Gama), Trinidad, and Bartica Grove; Berlepsch, Journ. Orn., 37, p. 297, 1889—Sarayacu, Rio Ucayali, Peru; Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Reyes, Bolivia; Riker and Chapman, Auk, 7, p. 267, 1890—Santarém; Chapman, Bull. Amer. Mus. N. H., 6, p. 31, 1894—Trinidad (ex Léotaud); Phelps, Auk, 14, p. 364, 1897—Cumanacoa, Venezuela; Goodfellow, Ibis, 1901, p. 468—part, Coca, Rio Napo, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 132, 1902—part, Trinidad, Venezuela (Cumanacoa), Guiana, Brazil (Diamantina), eastern Ecuador (Rio Napo), and Bolivia; Berlepsch and Hartert, Nov. Zool., 9, p. 21, 1902—Suapuré, La Prición, Nicare, and La Unión, Caura, Venezuela; Hellmayr, l.c., 13, p. 17, 1906—Valencia, Trinidad (crit.); idem, l.c., 14, pp. 7, 30, 1907—Itaituba (Rio Tapajóz) and Obidos, Brazil; idem, l.c., 14, p. 349, 1907—Humaytá, Rio Madeira; Ihering, Cat. Faun. Braz., 1, p. 361, 1907 (range); Snethlage, Journ. Orn., 56, pp. 10, 523, 1908—Rio Purús (Bom Lugar, Monte Verde) and Rio Tocantins (Arumatheua); Beebe, Zoologica (N.Y.), 1, p. 103, 1909—Rio Guarapiche, Orinoco delta, Venezuela; Hellmayr, Nov. Zool., 17, p. 276, 1910—Rio Madeira (Calama, Allianca, and Maroins, Rio Machados); Penard, Vog. Guyana, 2, p. 452, 1910—Surinam; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1074, 1912—part, "Bogotá," Venezuela, Trinidad, "Tobago," British Guiana, eastern Ecuador, Peru, Brazil, and Bolivia; Snethlage, Bol. Mus. Goeldi, 8, p. 452, 1914—Rio Guamá (São Miguel), Rio Tocantins (Ilha Pirunum, Arumatheua), Rio Tapajóz (Villa Braga), Rio Jamauchim (Santa Helena), Rio Purús (Bom Lugar, Monte Verde), Rio Jary (Santo Antonio da Cachoeira), Rio Maecurú, Obidos, and Rio Jamundá (Faro); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 181, 1916—Orinoco delta (Guanoco); La Cascabel, San Feliz River) and Caura River (El Llagal, Suapuré, La Unión, etc.), Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 616, 1917—part, La Morelia [Caquetá], Colombia; Chubb, Bds. Brit. Guiana, 2, p. 534, 1921—Ituribisci River, Supenaam, Bartica, Kamakabra Creek, Makauria River, and Anarica River; Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 273, 1930—Buena Vista, Bolivia.
- Tachyphonus luctuosus luctuosus* Hellmayr, Nov. Zool., 30, p. 228, 1923—Yuracares, Bolivia; Chapman, Bull. Amer. Mus. N. H., 55, p. 679, 1926—eastern Ecuador (below San José and Rio Suno); Naumburg, l.c., 60, p. 377, 1930—Rio Roosevelt, Matto Grosso.
- Pyrranga luctuosa* d'Orbigny, Voy. Amér. Mérid., Ois., p. 263, pl. 22, figs. 1, 2 (male, female), 1839—Guarayos and Yuracares, Bolivia.
- Lanio tenuirostris* (not *Tachyphonus tenuirostris* Swainson) Bonaparte, Consp. Gen. Av., 1, (1), p. 240, 1850—Bolivia.
- Chlorospingus flaviventris* Selater, Proc. Zool. Soc. Lond., 24, p. 91, July, 1856—Trinidad and Bolivia (?) (descr. of female; cotypes in coll. of W. Jardine and H. E. Strickland, the specimen in the last-named collection, now in the University Museum, Cambridge, England, examined); Hellmayr, Nov. Zool., 20, p. 236, 1913 (crit.).

*Tachyphonus albispecularis* Léotaud, Ois. Trinidad, p. 300, 1866—Trinidad (descr. of male and female; types in coll. of A. Léotaud, destroyed by fire); Selater, Ibis, 1867, p. 108 (crit.).

*Tachyphonus atricapillus* Lawrence, Proc. Acad. Nat. Sci. Phila., 20, p. 360, 1868—Trinidad (descr. of young male; type in coll. of G. N. Lawrence, now in the American Museum of Natural History, New York).

*Lanio lawrencii* Selater, Ibis, (5), 3, p. 272, pl. 6, fig. 2 (=young male), 1885—new name for *Tachyphonus atricapillus* Lawrence.

*Chlorospingus léotaudi* Chapman, Auk, 10, p. 343, 1893—Prinestown, Trinidad (descr. of female; type in the American Museum of Natural History, New York); idem, Bull. Amer. Mus. N. H., 6, p. 31, 1894—Prinestown.

*Range*.—Island of Trinidad; Venezuela (states of Sucre and Monagas; Orinoco delta; Caura Valley); British, Dutch, and probably also French Guiana; Brazil, east to Pará (Rio Guamá), south to Matto Grosso; eastern Colombia; eastern Ecuador; eastern Peru; Bolivia, east of the Andes.<sup>1</sup>

3: Brazil (Serra da Lua, near Boa Vista, Rio Branco, 1; Conceição, Rio Branco, 1); Colombia ("Bogotá," 1).

\**Tachyphonus luctuosus panamensis* Todd.<sup>2</sup> WESTERN LESSER WHITE-SHOULDERED Tanager.

*Tachyphonus luctuosus panamensis* Todd, Proc. Biol. Soc. Wash., 30, p. 128, 1917—Gatún, Canal Zone, Panama (type in U. S. National Museum);

<sup>1</sup> Birds from Trinidad and the adjacent mainland (*T. albispecularis*) do not seem to be separable, although their bills are on average very slightly stronger than in a series of Bolivian and Brazilian (Matto Grosso) examples, the other dimensions being practically the same. Traces of chestnut in the crown were noticed in only two (out of fifteen) males from Bolivia, but in none of the numerous individuals from other parts of the range. *Chlorospingus flaviventris* was bestowed upon two females of the present species, one of which (from Trinidad), formerly in Sir W. Jardine's collection, has been lost sight of, while the other (from Bolivia), obviously a Bridgesian skin, is still preserved in the Strickland Collection at Cambridge.

*Additional material examined*.—Trinidad: Caparo, 6; Valencia, 2; unspecified, 3.—British Guiana: Bartica Grove, 1.—Venezuela: inland of Cumaná, 5; Guanoco, Orinoco delta, 2; Caura Valley, 7.—Colombia: "Bogotá," 7.—Eastern Ecuador: Coca, Rio Napo, 2; Archidona, 1; Rio Napo, 2.—Brazil: Obidos, 1; Itaituba, Rio Tapajóz, 1; Borba, Rio Madeira, 1; Calama, 6; Maroins, Rio Machados, 1; Salto do Girão, Rio Madeira, 1; Humaytá, Rio Madeira, 7; Engenho do Gama, Matto Grosso, 4; Villa Maria, Matto Grosso, 6; Portão do Pilato, Goyáz, 1.—Bolivia: Rio San Mateo, 17.

<sup>2</sup> *Tachyphonus luctuosus panamensis* Todd: Very close to *T. l. luctuosus*, but white wing coverts of adult males more developed, this patch reaching beyond the tips of the primary coverts; female not certainly distinguishable.

This is rather an unsatisfactory race, some individuals from Amazonia having the white wing-patch very nearly as extensive as those from west of the Andes. In native "Bogotá" collections, both forms are seen. The birds with much white on the wings (*luctuosus*) doubtless originated in the tropical zone at the eastern foot of the eastern Andes, while the examples of *panamensis* probably came from the Magdalena Valley.

*Additional material examined*.—Panama: Railroad line, 4.—Colombia: "Bogotá," 5; Bucaramanga, 1.—Ecuador: Paramba, 4; Chimbo, 3.

Todd and Carriker, Ann. Carnegie Mus., 14, p. 484, 1922—Fundación and Tucurínca, Santa Marta, Colombia (crit.); Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 228, 1922—Rio Esnápe and Jesusito, Panama; Chapman, Bull. Amer. Mus. N. H., 55, p. 680, 1926—western Ecuador (Esmeraldas, Manaví, Chongon Hills, Bucay, junction of Chanchan and Chiguancay rivers, Chimbo, Naránjo, Rio Jubones, La Chonta); Griscom, Bull. Mus. Comp. Zool., 69, p. 190, 1929—El Real, El Tigre (Rio Cupe), and Cana, Darien; idem, l.c., 72, p. 371, 1932—Permé and Obaldia, Darien.

*Tachyphonus luctuosus* (not of Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 24, p. 114, 1856—part, Santa Marta; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 141—Rio Truando, Colombia; Sclater, Proc. Zool. Soc. Lond., 28, pp. 274, 292, 1860—Babahoyo and Esmeraldas, Ecuador; idem, Cat. Coll. Amer. Bds., p. 85, 1862—part, spec. d, e, Esmeraldas; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Panama Railroad; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Panama Railroad; Taczanowski, l.c., 1877, p. 332—Palmal, Santa Rosa, Ecuador; Sclater and Salvin, l.c., 1879, p. 503—Remedios and Neche, Colombia; Berlepsch and Taczanowski, l.c., 1883, p. 547—Chimbo, Ecuador; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 310, 1883—part, Panama Railroad, Chepo, and Rio Truando; Berlepsch, Journ. Orn., 32, p. 292, 1884—Bucaramanga, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 208, 1886—part, spec. d-g, k-n, Panama (Chepo), Colombia (Santa Marta, Remedios), and Ecuador (Santa Rita, Esmeraldas); Hartert, Nov. Zool., 5, p. 483, 1898—Chimbo, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Rio Peripa, Ecuador; Bangs, Proc. New Engl. Zool. Cl., 2, p. 29, 1900—Loma del León, Panama; Goodfellow, Ibis, 1901, p. 468—part, San Nicolas, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 132, 1902—part, "Veragua" to western Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1074, 1912—part, "Veragua," Panama, Colombia (Santa Marta, Antioquia), and western Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 616, 1917—part, Dabeiba (Rio Sucio), Guengüe and Rio Frio (Cauca), Chicoral and Opon (Magdalena Valley), Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 279, 1918—Gatún, Panama.

*Range*.—Tropical zone of Panama (from the Canal zone eastward), Colombia (west of the eastern Andes), and western Ecuador (south to Santa Rosa).

9: Panama ("Veragua," 1<sup>1</sup>); Colombia (Rio Cauca, 1; El Guayabal, ten miles north of San José de Cucuta, Santander, 3); Ecuador (Puente de Chimbo, 4).

\**Tachyphonus luctuosus axillaris* (Lawrence).<sup>2</sup> COSTA RICAN  
WHITE-SHOULDERED TANAGER.

<sup>1</sup> A Boucardian skin, labeled "Veragua," but probably from Panama, agrees in extent of white humeral area with specimens from western Ecuador.

<sup>2</sup> *Tachyphonus luctuosus axillaris* (Lawrence): Similar to *T. l. panamensis*, but adult male frequently with a small half-concealed crown-spot of bright yellow

*Chlorospingus axillaris* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 395, 1874—"Volcan de Irazú"—Talamanca, Costa Rica (descr. of young male; type in U. S. National Museum); Salvin, Ibis, 1874, p. 308 (crit.).

*Tachyphonus luctuosus* (not of Lafresnaye and d'Orbigny) Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—Angostura, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 100, 1868—Angostura and "Juiz" [=Tuís], Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Ibis, 1872, pp. 313, 317—Chontales, Nicaragua; Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—San Carlos, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 310, 1883—part, Nicaragua (Chontales) and Costa Rica (Angostura, Tuís, Valsa); Ridgway, Proc. U. S. Nat. Mus., 6, p. 412, 1884—Talamanca, Dos Novillos, and Tuís, Costa Rica (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 208, 1886—part, spec. a-c, Nicaragua (Chontales) and Costa Rica (Angostura); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—part, Angostura, Costa Rica; Richmond, Proc. U. S. Nat. Mus., 16, p. 490, 1893—Rio Escondido, Nicaragua.

*Tachyphonus nitidissimus* (not of Salvin) Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 312, 1883—part, Costa Rica (Valsa, "Irazú," Angostura); Sclater, Cat. Bds. Brit. Mus., 11, p. 214, 1886—part, spec. j, Valsa, Costa Rica.

(?)*Tachyphonus nitidissimus*(?) Ridgway, Proc. U. S. Nat. Mus., 10, p. 586, 1888—Segovia River, Honduras.

*Tachyphonus axillaris* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 134, 1902—Costa Rica (Angostura, Valsa, Talamanca), Nicaragua (Chontales, Rio Escondido), and (?)Honduras (Rio Segovia); Carriker, Ann. Carnegie Mus., 6, p. 847, 1910—Caribbean Costa Rica (Bonilla, Guayábo, La Concepción de Jiménez, Carrillo, La Vijagua, Guápiles, El Hogar, Peralta, Juan Viñas); Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 463, 1928—Boquete Trail, Almirante Bay, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Changuinola and Boquete Trail, Almirante Bay region, Panama; (?)Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 338, 1932—Segovia River, Honduras.

*Tachyphonus nitidissimus axillaris* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1077, 1912—Costa Rica, Nicaragua, and (?)Honduras.

*Range.*—Tropical zone of the Caribbean side of extreme western Panama (Almirante Bay region), Costa Rica, Nicaragua, and (?) southeastern Honduras (Segovia River).<sup>1</sup>

2: Costa Rica (Limón, 1; Guápiles, 1).

and with the white area on the wing coverts less extensive (more like *T. l. luctuosus*); female readily distinguished by greenish instead of grayish pileum and more yellowish (less buffy white) throat. Males without crown-spot are separated with difficulty from *T. l. luctuosus*, whereas the female closely resembles that of *T. l. nitidissimus* excepting the brighter yellow under parts. The combination of these characters clearly indicates conspecific relationship between *luctuosus* and *nitidissimus*.

<sup>1</sup> A single female from the Segovia River differs by having the throat entirely yellow, and may represent a distinct form.



**\*Tachyphonus luctuosus nitidissimus** Salvin.<sup>1</sup> CHIRIQUÍ  
WHITE-SHOULDERED TANAGER.

*Tachyphonus nitidissimus* Salvin, Proc. Zool. Soc. Lond., 1870, p. 188—Bugaba, Chiriquí, Panama (types in Salvin-Godman Collection, now in British Museum); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 312, pl. 21, fig. 2 (male), 3 (female), 1883—part, Panama (Bugaba, Divalá); Ridgway, Proc. U. S. Nat. Mus., 6, p. 412, 1884—Pirris, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 214, 1886—part, spec. a-i, Chiriquí (Bugaba, Divalá); Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Palmar, Lagarto, Boruca, and Térraba, Costa Rica; idem, l.c., 6, p. 14, 1895—Naránjo, Costa Rica; Bangs, Auk, 18, p. 369, 1901—Divalá, Chiriquí; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 136, 1902—Chiriquí and southwestern Costa Rica (Pirris); Bangs, Auk, 24, p. 309, 1907—Boruca, Paso Real, El Pózo, and Barranca de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 846, 1910—Costa Rica (Pózo Azul de Pirris, Pózo Pital, El General, Buenos Aires de Térraba, El Pózo de Térraba, and Boruca, Costa Rica [habits]); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1077, 1912—southwestern Costa Rica, Chiriquí (Bugaba), and “Veragua.”

*Tachyphonus luctuosus* (not Lafresnaye and d'Orbigny) Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—part, Pózo Azul de Pirris, Costa Rica.

*Range.*—Tropical zone of southwestern Costa Rica (north to the Rio Grande de Pirris, possibly to the Rio Grande de Tarcoles) and extreme western Panama (Bugaba and Divalá, Chiriquí).<sup>2</sup>

5: Costa Rica (Boruca, 2; Térraba, 2; El Pózo, Rio Térraba, 1).

**\*Tachyphonus delatreei delatreei** Lafresnaye. TAWNY-CRESTED  
TANAGER.

*Tachyphonus Delatreei*<sup>3</sup> Lafresnaye, Rev. Zool., 10, p. 72, 1847—Buenaventura, Colombia (descr. of male; type in coll. of E. Wilson, now in the Academy of Natural Sciences, Philadelphia; cf. Stone, Proc. Acad. Nat. Sci. Phila., 51, p. 51, 1899); Sclater, Proc. Zool. Soc. Lond., 24, p. 116, 1856—Buenaventura and “Gorgona Island” (monog.); idem, l.c., 27, p. 139, 1859—Pallatanga, Ecuador; Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 142—Falls of the Rio Truando, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 331, 1861—Panama Railroad; Sclater, Cat. Coll. Amer. Bds., p. 86, 1862—“Bogotá” and Pallatanga; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Panama Railroad; Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—“Paqua” [=Pacuare], Costa Rica; Salvin,

<sup>1</sup> *Tachyphonus luctuosus nitidissimus* Salvin: Similar to *T. l. axillaris*, but adult male with crown patch much larger, exposed, and orange-rufous; adult female somewhat duller yellow underneath.

Birds from the Térraba Valley in Costa Rica agree with others from the type locality.

Six specimens from Chiriquí and nine from Costa Rica examined.

<sup>2</sup> No published authentic record seems to exist for “Veragua,” though both Ridgway and Berlepsch include this province in the range of *T. l. nitidissimus*.

<sup>3</sup> Various spelled “*De Lattrei*,” “*delatreei*,” or “*delatreei*.”

Proc. Zool. Soc. Lond., 1867, p. 140—Santa Fé and Santiago, Veraguas; Sclater and Salvin, Exot. Orn., p. 67, pl. 34, 1867—Ecuador (Pallatanga) to Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 100, 1868—“Payua” [=Pacuare], Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—“San Mateo,” Costa Rica (habits); Sclater and Salvin, l.c., 1879, p. 503—Remedios and Neche, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 312, 1883—Costa Rica to Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 215, 1886—Veragua (Santa Fé, Santiago), Panama, “Gorgona Island,” Colombia (Remedios, “Bogotá,” “Pasto”), and Ecuador (Pallatanga); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Pacuare, Costa Rica; Hartert, Nov. Zool., 5, p. 483, 1898—Cachaví, Ecuador; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 136, 1902—Costa Rica to Ecuador (monog.); Carriker, Ann. Carnegie Mus., 6, p. 845, 1910—Costa Rica (Jiménez, Reventazón, Carrillo, Guácimo, El Hogar); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1115—San Joaquin (Buenaventura), Noanamá, Río Cajón, and Sipi, Colombia; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1077, 1912—Costa Rica to Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 616, 1917—Alto Bonito, Bagado, Andagueda, Baudo, Juntas de Tamaná, Nóvita, Noanamá, San José, Barbaocoas, and Puerto Valdivia, Colombia; idem, l.c., 55, p. 681, 1926—western Ecuador; Kennard and Peters, Proc. Bost. Soc. N. H., 38, p. 463, 1928—Boquete Trail, Almirante Bay region, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Boquete Trail and Crimacola, Panama.

*Chlorospingus brunneus* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 10, p. 395, 1874—“Volcan de Irazú”=Talamanca, Costa Rica (deser. of female; type in U. S. National Museum); Salvin, Ibis, 1874, p. 308 (crit.).

*Range.*—Tropical zone of Caribbean Costa Rica and Panama, western Colombia (east through Antioquia to the Magdalena Valley), and western Ecuador.<sup>1</sup>

2: Costa Rica (Siquirres, 1); Colombia (Nóvita, Río San Juan, Cauca, 1).

### *Tachyphonus delatrii longirostris* Huber.<sup>2</sup> LONG-BILLED TAWNY-CRESTED TANAGER.

*Tachyphonus delatrii longirostris* Huber, Proc. Acad. Nat. Sci. Phila., 81, p. 471, 1929—Great Falls, Pis Pis River, Nicaragua (type in the Academy)

<sup>1</sup> Ecuadorian birds are perfectly identical with a topotypical series from western Colombia. Specimens from Costa Rica are on average slightly larger, with the bill a little longer as well as more slender, and, thus, betray some tendency toward the Nicaraguan form. The vertical crest, besides, seems to be slightly deeper orange.

*Additional material examined.*—Ecuador: San Javier, 4; Río Verde (alt. 3,200 ft.), 2; Cachyjacú (alt. 3,200 ft.), 2; Lita (alt. 3,000 ft.), 2.—Colombia: San Joaquin (Buenaventura), 2; Noanamá, 2; Río Cajón, 2; Sipi, 8.—Costa Rica: Carrillo, 5.

<sup>2</sup> *Tachyphonus delatrii longirostris* Huber: Similar to *T. d. delatrii*, but somewhat larger, particularly with longer bill. Wing, 75–77; tail, 65–70; bill, 16–17.

A single Nicaraguan male has indeed a longer bill than any specimens from farther south.

of Natural Sciences, Philadelphia); idem, l.c., 84, p. 246, 1932—Great Falls (Pis Pis River) and Eden, Nicaragua.

*Tachyphonus delatarii* (not of Lafresnaye) Rendahl, Ark. Zool., 12, No. 8, p. 34, 1919—San Juan del Norte, Nicaragua (crit.).

*Range*.—Tropical zone of the Caribbean slope of Nicaragua.

### Genus HETEROSPINGUS Ridgway

*Heterospingus* Ridgway, Auk, 15, p. 225, 1898—type, by orig. desig., *Tachyphonus rubrifrons* Lawrence.

#### \**Heterospingus xanthopygius xanthopygius* (Sclater). ORANGE-BROWED TANAGER.

*Tachyphonus xanthopygius* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 158, pl. 69, pub. April, 1855—"in Nova Grenada"="Bogotá" collections (descr. of female; type in British Museum); idem, l.c., 23, p. 83, pl. 90, 1855—"Bogotá" (descr. of male); idem, l.c., p. 156, 1855—"Bogotá"; idem, l.c., 24, p. 116, 1856—"Bogotá" (monog.); Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 142—Rio Truando, Colombia (one male); Sclater and Salvin, Exot. Orn., p. 68, 1867—"Nova Grenada"; idem, Proc. Zool. Soc. Lond., 1879, p. 503—Remedios, Antioquia, Colombia; Berlepsch and Taczanowski, l.c., 1883, p. 547—Chimbo, Ecuador; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 311, 1883—part, descr. of male and hab., Colombia (Rio Truando, etc.); Sclater, Cat. Bds. Brit. Mus., 11, p. 209, 1886—part, spec. a-h, Colombia ("Bogotá," Remedios).

*Lanio auritus* Du Bus, Bull. Acad. Roy. Sci., Lettr. et Beaux-Arts Belg., 22, (1), p. 153, 1855—"Colombie"="Bogotá" (descr. of male and female; types in Brussels Museum).

*Heterospingus xanthopygius* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 104, 1902—Colombia to western Ecuador (monog.); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1114—Nóvita, Tadó, and Condoto, Pacific Colombia (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1073, 1912—Colombia ("Bogotá," Remedios, Rio Truando) and Ecuador (Chimbo); Chapman, Bull. Amer. Mus. N. H., 36, p. 615, 1917—Colombia (Alto Bonito, San José, and Cachipay, Magdalena Valley); idem, l.c., 55, p. 679, 1926—Ecuador (Chimbo).

*Range*.—Tropical zone of Pacific Colombia, north to the Rio Truando, east through Antioquia to the Magdalena Valley, and western Ecuador (Chimbo).<sup>2</sup>

2: Colombia ("Bogotá," 2).

<sup>1</sup> The paper is contained in No. 2 ("séance du 3 février 1855") and may have priority over Sclater's account, which was not issued until April, 1855. I do not know, however, whether the "Bulletin" of the Belgian Academy really came out in monthly numbers or whether the "première partie" of vol. 22 was published as a whole at a later date. Under these circumstances it appears unwise to change current nomenclature.

<sup>2</sup> Birds from Pacific Colombia agree with Bogotá skins, and a single male from Chimbo also seems to be inseparable.

*Material examined*.—Colombia: Nóvita, 3; Tadó, 1; Condoto, 1; "Bogotá," 8.—Ecuador: Chimbo, 1.

\**Heterospingus xanthopygius rubrifrons* (Lawrence).<sup>1</sup>

## LAWRENCE'S TANAGER.

*Tachyphonus rubrifrons* Lawrence, Proc. Acad. Nat. Sci. Phila., 1865, p. 106—line of Panama Railroad, near Lion Hill (type in coll. of G. N. Lawrence, now in the American Museum of Natural History, New York); Sclater and Salvin, Exot. Orn., p. 68, 1867—Panama; Ridgway, Proc. U. S. Nat. Mus., 16, pp. 610, 611, 1893—Reventazón and Angostura, Costa Rica (crit.).

*Tachyphonus propinquus* Lawrence, Proc. Acad. Nat. Sci. Phila., 1867, p. 94—substitute name for *T. rubrifrons* (considered inappropriate as being based on an accidental character); idem, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—Angostura, Costa Rica; Frantzus, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Ibis, 1870, p. 109—Panama (crit.).

*Tachyphonus xanthopygius* (not of Sclater) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 331, 1864—Isthmus of Panama; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351—Lion Hill, Panama (one female); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 311, 1883—part, descr. of female and hab. Costa Rica (Angostura) and Panama (Veraguas, Lion Hill); Sclater, Cat. Bds. Brit. Mus., 11, p. 209, 1886—part, spec. i-k, Panama and Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Costa Rica.

*Heterospingus xanthopygius* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 228, 1922—Mount Sapó, Darien.

*Heterospingus rubrifrons* Bangs, Proc. New Engl. Zool. Cl., 2, p. 29, 1900—Loma del León, Panama (one male); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 104, 1902—Panama to Costa Rica (monog.); Carriker, Ann. Carnegie Mus., 6, p. 852, 1910—Costa Rica (Pacuarito, Reventazón); Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1115 (in text)—Veragua and Chiriquí (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1073, 1912—Panama to Costa Rica; Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Western River, Almirante Bay, Panama; Griscom, l.c., 72, p. 371, 1932—Obaldia, eastern Panama (crit.).

*Range*.—Tropical zone of Panama (east to Darien) and eastern Costa Rica (Angostura, Pacuarito, Reventazón).

1: Costa Rica (Siquirres, 1).

## Genus CREURGOPS Sclater

*Creurgops* Sclater, Proc. Zool. Soc. Lond., 26, p. 73, 1858—type, by monotypy, *Creurgops verticalis* Sclater.

<sup>1</sup>*Heterospingus xanthopygius rubrifrons* (Lawrence) is similar to the female of the nominate race, but much smaller (wing, 78–82 against 88–92; tail, 57–60 against 65–70). The male lacks the orange-red supra-auricular stripe as well as the bright lemon-yellow patch on the lesser upper wing coverts, such conspicuous features in the corresponding sex of *H. x. xanthopygius*, and resembles the female, from which it merely differs by darker gray under parts with more yellow on the lower tail coverts. Still, I can see in it only a well-marked representative race.

*Material examined*.—Panama: Chiriquí, 1; Veraguas, 3; Panama Railroad, 2.



**\*Creurgops verticalis** Sclater. RUFIOUS-CRESTED TANAGER.

*Creurgops verticalis* (J. Verreaux MS.) Sclater, Proc. Zool. Soc. Lond., 26, p. 73, pl. 132, fig. 2, 1858—Rio Napo, eastern Ecuador (type in coll. of E. and J. Verreaux, its present location unknown); Taczanowski, l.c., 1874, p. 513—Ropaybamba, Peru; Sclater and Salvin, l.c., 1879, p. 503—Santa Elena, Antioquia, Colombia (descr. of female); Taczanowski, Orn. Pér., 2, p. 501, 1884—Ropaybamba; idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Machay, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 215, 1886—Santa Elena, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1078, 1912—Colombia (Santa Elena), Ecuador (Rio Napo, Machay), and Peru (Ropaybamba); Chapman, Bull. Amer. Mus. N. H., 36, p. 616, 1917—San Antonio, Salento, Santa Elena, El Eden, La Palma, and La Candela, Colombia; idem, l.c., 55, p. 681, 1926—Baeza, Rio Sardinas, and below Oyacachi, eastern Ecuador.

*Range*.—Subtropical zone of Colombia (western and central Andes), eastern Ecuador, and eastern Peru (Ropaybamba, Department of Junín).<sup>1</sup>

1: Colombia (La Palma, Huila, 1).

Genus **MALACOTHRAUPIS** Sclater and Salvin<sup>2</sup>

*Malacothraupis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 353—type, by monotypy, *Malacothraupis dentata* Sclater and Salvin.

**Malacothraupis dentata** Sclater and Salvin. RUFIOUS-AND-GRAY TANAGER.

*Malacothraupis dentata* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 353, pl. 31—Tilotilo, Yungas of La Paz, Bolivia (type in Salvin-Godman Collection, now in British Museum); idem, l.c., 1879, p. 601—Tilotilo; Sclater, Cat. Bds. Brit. Mus., 11, p. 216, 1886—Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1078, 1912—Bolivia (Tilotilo, Quebrada Onda).

*Range*.—Subtropical zone of Bolivia (Tilotilo, Yungas of La Paz; Quebrada Onda, Yungas of Cochabamba).

**Malacothraupis gustavi** Berlepsch.<sup>3</sup> GUSTAV'S TANAGER.

<sup>1</sup> *Material examined*.—Colombia: Santa Elena, 2; San Antonio, 1; La Palma, 1.—Ecuador: Machay, 1; Baeza, 2.

<sup>2</sup> Not separable generically from *Creurgops* according to Carriker (Proc. Acad. Nat. Sci. Phila., 86, p. 332, 1934).

<sup>3</sup> *Malacothraupis gustavi* Berlepsch: Similar in form to *M. dentata*, but slightly larger; top of the head chestnut-rufous, posteriorly margined with black; the forehead narrowly black; superciliaries gray instead of white; entire under surface gray (somewhat lighter than the back), middle of the abdomen fringed with whitish. Wing, 72–73; tail, 68–69; bill, 15.

A single specimen from Santo Domingo agrees perfectly with the type. As has been pointed out by Berlepsch, the relationships of this bird to *M. dentata* are

*Malacothraupis gustavi* Berlepsch, Journ. Orn., 49, p. 85, Jan., 1901—Chaco, Yungas of La Paz, Bolivia (type in coll. of H. von Berlepsch, now in Frankfurt Museum); idem, Verh. 5th Intern. Orn. Kongr., p. 1078, 1912—Bolivia ("Songo") and southeastern Peru (Inca Mine).

*Malacothraupis castaneiceps* Chapman, Bull. Amer. Mus. N. H., 14, p. 225, Sept. 12, 1901—Inca Mine [=Santo Domingo], Marcapata, Peru (type in the American Museum of Natural History, New York).

*Range.*—Subtropical zone of northern Bolivia (Chaco, Yungas of La Paz) and southeastern Peru (Santo Domingo, Marcapata).

### Genus EUCOMETIS Sclater

*Comarophagus* (not of Boie, 1826) Bonaparte, Compt. Rend. Acad. Sci. Paris, 32, p. 81, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 72, 1855), *Tanagra penicillata* Spix.

*Eucometis* Sclater, Proc. Zool. Soc. Lond., 24, p. 117, Aug., 1856—new name for *Comarophagus* Bonaparte, preoccupied.

### \**Eucometis penicillata penicillata* (Spix). GRAY-AND-WHITE CRESTED TANAGER.

*Tanagra penicillata* Spix, Av. Spec. Nov. Bras., 2, p. 36, pl. 49, fig. 1, 1825—locality not specified<sup>1</sup> (type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 671, 1906).

*Tachyphonus penicillata* Bonaparte, Consp. Gen. Av., 1, (1), p. 237, 1850—Brazil.

*Eucometis penicillata* Sclater, Proc. Zool. Soc. Lond., 24, p. 117, 1856—Cayenne, Surinam, and (?)Brazil; idem, Cat. Coll. Amer. Bds., p. 84, 1862—Cayenne and Rio Napo; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—upper Ucayali, Peru; idem, l.c., 1867, p. 571—Mexiana; Pelzeln, Orn. Bras., 3, p. 212, 1870—Borba, Rio Madeira; Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 262—upper Ucayali and Santa Cruz, Peru; Taczanowski, Orn. Pér., 2, p. 499, 1884—Peru (upper Ucayali, Santa Cruz, Pebas); Sclater, Cat. Bds. Brit. Mus., 11, p. 217, 1886—Cayenne, Pará, Mexiana, Iquitos (Peru), Rio Napo (Ecuador), and "Bogotá" (Colombia); Ihering, Cat. Faun. Braz., 1, p. 363, 1907—Rio Juruá, Brazil; Sneath, Journ. Orn., 55, p. 295, 1907—Pará and Mexiana; Hagmann, Zool. Jahrb. (Syst.), 26, p. 27, 1907—Mexiana; Berlepsch, Nov. Zool., 15, p. 117, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 455, 1910—Surinam; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1078, 1140, 1912 (range); Sneath, Bol. Mus. Goeldi, 8, p. 455, 1914—Pará, Quati-purú, Rio Guamá (Santa Maria de São Miguel), Rio Tocantins (Cametá, Ilha Bocca do Manapiri), Cussary, Mexiana, and Rio

somewhat doubtful, since an immature specimen from Quebrada Onda, Bolivia, combines characters of the two "species." Of *M. gustavi* adult males only have been recorded, while the type of *M. dentata* is unsexed. Possibly the differences are sexual rather than specific.

<sup>1</sup> Berlepsch (Nov. Zool., 15, p. 117, 1908) suggests Fonte Bõa, Rio Solimões, as type locality.

Jamundá (Faro), Brazil; Chubb, Bds. Brit. Guiana, 2, p. 538, 1921—Abary River; Chapman, Bull. Amer. Mus. N. H., 55, p. 682, 1926—Rio Suno, Ecuador; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 60, 1926—Maranhão (São Bento, Tury-assú).

*Eucometis penicillata penicillata* Hellmayr, Nov. Zool., 14, p. 349, 1907—Humaytá, Rio Madeira; idem, l.c., 17, p. 277, 1910—Calama, Rio Madeira; idem, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 12, 87, 100, 1912—Ipitinga, Rio Acará, and Mexiana (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 175, 1928—Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 284, 1929—Tury-assú, Maranhão.

*Eucometis albicollis* (not *Pyrranga albicollis* Lafresnaye and d'Orbigny) Sclater, Proc. Zool. Soc. Lond., 26, p. 72, 1858—Rio Napo, Ecuador; Ihering, Rev. Mus. Paul., 6, p. 432, 1905—Rio Juruá, Brazil.

*Range*.—Northern Brazil, from northern Maranhão west through the Amazon Valley and its tributaries to eastern Peru, thence north through eastern Ecuador to the eastern base of the east Colombian Andes; also French, Dutch, and British Guiana.<sup>1</sup>

4: Brazil (Tury-assú, Maranhão, 3; lower Rio Branco, 1).

\**Eucometis penicillata albicollis* (Lafresnaye and d'Orbigny).<sup>2</sup>  
WHITE-NECKED CRESTED TANAGER.

*Pyrranga albicollis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 33, 1837—Chiquitos, Bolivia (type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 265, pl. 26, fig. 2, 1839—Chiquitos (Santa Ana) and Guarayos.

*Eucometis albicollis* Sclater, Proc. Zool. Soc. Lond., 24, p. 117, 1856—Chiquitos, Bolivia (descr.); idem, Cat. Coll. Amer. Bds., p. 84, 1862—Bolivia; Pelzeln, Orn. Bras., 3, p. 212, 1870—Goyáz (Goyáz, Mamoneira) and Matto Grosso (Sangrador, Cuyabá, Villa Maria, Engenho do Gama); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 601—Santa Ana, Chiquitos; Sclater, Cat. Bds. Brit. Mus., 11, p. 217, 1886—Bolivia and interior of Brazil (Goyáz); Allen, Bull. Amer. Mus. N. H., 3, p. 358, 1891—Chapada, Matto Grosso; Salvadori, Boll. Mus. Zool. Torino, 15, No. 378, p. 4, 1900

<sup>1</sup> The type and three specimens from eastern Peru are on average slightly smaller with shorter, wider bills, and an unsexed "Bogotá" skin is similar. Birds from Lower Amazonia and Maranhão present the largest measurements with longer, more slender bills, while a series from the Rio Madeira is intermediate.

*Additional material examined*.—Brazil: Quati-purú, Pará, 1; Mexiana (Fazenda Nazareth), 6; Ipitinga, Rio Acará, 3; Rio Madeira, Borba, 7; Calama, 2; Humaytá, 4; Rio Juruá, 1.—Peru: Santa Cruz, lower Huallaga, 1; Loretoyacu, 2.—Colombia: "Bogotá," 1.

<sup>2</sup> *Eucometis penicillata albicollis* (Lafresnaye and d'Orbigny) differs from the nominate race in rusty-white throat (not tinged with grayish posteriorly); pale brownish instead of grayish sides of the head; much paler yellow under parts; much shorter crest without any white at the base; and in adult state by pale brown instead of blackish bill.

*Additional material examined*.—Bolivia: Guarayos, 1; Chiquitos, 1 (the type); Santa Cruz de la Sierra, 1.—Brazil: Goyáz City, 1; Matto Grosso, Cuyabá, 2; Chapada, 6; Lavrinhas, 1; Sangrador, 1; Villa Maria, 1; Engenho do Gama, 1.

—Urucúm, Matto Grosso; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1079, 1912 (range, excl. Rio Juruá).

*Eucometis penicillata albicollis* Ihering, Cat. Faun. Braz., 1, p. 364, 1907—Itapura, São Paulo; Hellmayr, Nov. Zool., 30, p. 242, 1923—Bolivia (crit., range); Naumburg, Bull. Amer. Mus. N. H., 60, p. 379, 1930—Descalvados, Urucúm, Belvedere de Urucúm, and São Lourenço, Matto Grosso (nest and eggs); Laubmann, Anz. Orn. Ges. Bay., 2, No. 7, p. 299, 1933—Zanja Moroti, Apa, Paraguay.

*Range*.—Eastern Bolivia (Santa Ana, Chiquitos; Guarayos; Santa Cruz de la Sierra) and central Brazil, in states of Matto Grosso and Goyáz, south to northwestern São Paulo (Itapura, Rio Tieté) and extreme northern Paraguay (Zanja Moroti, Apa).

3: Brazil (Chapada, Matto Grosso, 3).

**\**Eucometis penicillata affinis* Berlepsch.<sup>1</sup> VENEZUELAN CRESTED TANAGER.**

*Eucometis cristata affinis* Berlepsch, Auk, 5, pp. 451, 453, 1888—"Puerto Cabello," Venezuela (type in coll. of H. von Berlepsch, now in Frankfurt Museum); idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1079, 1912—"Puerto Cabello"; Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 64, 1912—Cumbre Chiquita and Las Quiguas, Carabobo, Venezuela (crit.).

*Eucometis cristata* (not *Pipilopsis cristata* Du Bus) Sclater, Proc. Zool. Soc. Lond., 24, p. 118, 1856—part, Venezuela (Caracas); Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 627—San Esteban; Sclater, Cat. Bds. Brit. Mus., 11, p. 218, 1886—part, spec. l, m, San Esteban, Venezuela.

*Range*.—Tropical zone of northern Venezuela, in states of Zulia (Orope) and Carabobo (San Esteban, Las Quiguas, Cumbre Chiquita) and in Federal District (Caracas region).

1: Venezuela (Orope, Zulia, 1).

**\**Eucometis penicillata cristata* (Du Bus). COLOMBIAN CRESTED TANAGER.**

*Pipilopsis cristata* Du Bus, Bull. Acad. Roy. Sci., Lettr. et Beaux-Arts Belg., 20, (1), p. 153, 1855—Colombia (type in Brussels Museum).

*Trichothraupis penicillata* (not *Tanagra penicillata* Spix) Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—"Bogotá."

<sup>1</sup>*Eucometis penicillata affinis* Berlepsch: Very similar to *E. p. cristata*, but throat paler and more purely gray with whitish rather than buffy suffusion; crest shorter; yellow of under parts, especially on chest and sides, somewhat paler, less tinged with ochraceous. Wing, 89–93, (female) 84–89; tail, 77–84, (female) 76–81; bill, 14–15.

I do not see any reason for specific separation of *E. cristata* and *E. spodocephala*, the characters being merely differences of degree, while the ranges are strictly representative.

*Additional material examined*.—Venezuela: "Puerto Cabello," 1; Cumbre Chiquita, 4; Las Quiguas, 10; "Caracas," 1.



*Eucometis cristata* Sclater, Proc. Zool. Soc. Lond., 24, p. 118, 1856—part, Colombia (Santa Marta, Cartagena); Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 141—Rio Truando, Colombia; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 298, 1861—Panama Railroad; Sclater, Cat. Coll. Amer. Bds., p. 84, 1862—Santa Marta and "Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 350—Panama Railroad (crit.); Salvin and Godman, Ibis, 1880, p. 121—Arihueca, Santa Marta, Colombia; idem, Biol. Centr.-Amer., Aves, 1, p. 306, 1883—part, Panama (Lion Hill, Paraiso Station) and Colombia (excl. Venezuela); Sclater, Cat. Bds. Brit. Mus., 11, p. 318, 1886—part, spec. a-k, Panama (Paraiso Station) and Colombia (Arihueca, Santa Marta, Minca, "Bogotá"); Bangs, Proc. Biol. Soc. Wash., 12, p. 142, 1898—"Santa Marta"; Allen, Bull. Amer. Mus. N. H., 13, p. 168, 1900—Bonda, Onaca, and Cacagualito, Colombia; Bangs, Proc. New Engl. Zool. Cl., 2, p. 29, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 139, 1902—"Veragua (Chitrá)" to Colombia; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 222, 1906—Savanna of Panama; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1079, 1912—Colombia ("Bogotá," Barranquilla, Santa Marta); Chapman, Bull. Amer. Mus. N. H., 36, p. 617, 1917—El Consuelo, Magdalena Valley, Colombia; Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 279, 1918—Gatún, Panama.

*Eucometis cristata cristata* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 228, 1922—Mount Sapó, Rio Esnápe, and Jesusito, Darien; Todd and Carriker, Ann. Carnegie Mus., 14, p. 483, 1922—Tucurinca, Bonda, Don Diego, Cacagualito, Las Nubes, Minca, La Tigrera, Las Vegas, Cincinnati, Fundación, Pueblo Viejo, and Valencia, Santa Marta, Colombia (habits); Darlington, Bull. Mus. Comp. Zool., 71, p. 417, 1931—near Rio Frio, Magdalena, Colombia; Griscom, l.c., 72, p. 371, 1932—Permé, Darien.

*Range*.—Tropical zone of Colombia (Magdalena Valley, Santa Marta region, and Caribbean coast) and Panama, west to the Canal zone.<sup>1</sup>

3: Panama (unspecified, 2); Colombia (Tucurinca, Santa Marta, 1).

**\*Eucometis penicillata stictothorax** Berlepsch.<sup>2</sup> STREAK-CHESTED TANAGER.

*Eucometis spodocephala stictothorax* Berlepsch, Auk, 5, pp. 451, 452, 1888—"Veragua"—Chiriquí, Panama (type in coll. of H. von Berlepsch, now in Frankfurt Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 141, 1902—Chiriquí and (?)Veraguas (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 66, 1902—Boquete and Bugaba, Chiriquí; idem, Auk, 24,

<sup>1</sup> Panama specimens agree with a Colombian series.

<sup>2</sup> Rather an ill-defined race, though generally recognizable by its flammulated chest. Birds from Costa Rica, while not extremely marked, seem sufficiently close to be referred to the Chiriquí race. In the absence of material from Veraguas, I follow Salvin in including this region in the range of *stictothorax*.

Nine specimens from the Térraba Valley, Costa Rica, and eight from Chiriquí examined.

p. 309, 1907—Boruca, Paso Real, El Pózo, and Lagarto de Térraba, Costa Rica; Carriker, Ann. Carnegie Mus., 6, p. 844, 1910—southwestern Costa Rica (El General, Buenos Aires de Térraba, Pózo Azul de Pirrís, El Pózo de Térraba, Boruca); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1079, 1912—Chiriquí (Bugaba, Boquete).

*Eucometis spodocephala* (not *Chlorospingus spodocephalus* Bonaparte) Salvin, Proc. Zool. Soc. Lond., 1867, p. 139—Santa Fé, Veraguas; idem, l.c., 1870, p. 188—Bugaba and Mina de Chorchá, Chiriquí (crit.); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 307, 1883—part, Panama (Bugaba, Mina de Chorchá, Santa Fé); Sclater, Cat. Bds. Brit. Mus., 11, p. 219, 1886—part, spec. j-m, Santa Fé (Veragua), Mina de Chorchá, Bugaba, Chiriquí; Cherrie, Anal. Inst. Fis.-Geogr. y Mus. Nac. Costa Rica, 4, p. 139, 1893—Boruca, Térraba, and Buenos Aires, Costa Rica; Bangs, Auk, 18, p. 369, 1901—Divalá, Chiriquí.

*Range*.—Tropical zone of western Panama (east to Veraguas) and southwestern Costa Rica (south of the Rio Grande de Pirrís).

7: Costa Rica (El Pózo, Rio Térraba, 3; Térraba, 1; Boruca, 3).

**\**Eucometis penicillata spodocephala* (Bonaparte). CARIBBEAN GRAY-HEADED TANAGER.**

*Chlorospingus spodocephalus* Bonaparte, Compt. Rend. Acad. Sci. Paris, 39, p. 922, 1854—Nicaragua (type in Paris Museum); idem, Not. Orn. Coll. Delattre, p. 22, 1854 (reprint); Sclater, Proc. Zool. Soc. Lond., 24, p. 91, 1856—Nicaragua (ex Bonaparte).

*Eucometis cristata* (not *Pipilopsis cristata* Du Bus) Sclater, Proc. Zool. Soc. Lond., 24, p. 118, 1856—part, Nicaragua.

*Eucometis spodocephala* Sclater, Cat. Coll. Amer. Bds., p. 84, 1862—Nicaragua; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 100, 1868—Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Salvin, Ibis, 1872, p. 316—Nicaragua [= Virgin Bay, Lake Nicaragua]; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 307, 1883—part, Nicaragua (Virgin Bay, Hato Viejo) and Costa Rica (Tempate); Nutting, Proc. U. S. Nat. Mus., 6, p. 382, 1884—Sucuyá, Nicaragua; Sclater, Cat. Bds. Brit. Mus., 11, p. 219, 1886—part, spec. f-i, Nicaragua (Virgin Bay) and Costa Rica (Nicoya); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Trojas de Puntarenas, Costa Rica; Underwood, Ibis, 1896, p. 435—Bebedéro to Miravalles, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1079, 1912—Nicaragua and Costa Rica.

*Eucometis spodocephala spodocephala* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 139, 1902—Costa Rica and Nicaragua (monog.); Carriker, Ann. Carnegie Mus., 6, p. 844, 1910—Bebedéro, Miravalles, Tenorio, Bolson, and Bagáces, Costa Rica (crit., habits).

*Range*.—Tropical zone of Pacific Nicaragua and Costa Rica (north of the Rio Grande de Pirrís).<sup>1</sup>

<sup>1</sup> Specimens from the Pacific side of northern Costa Rica agree well with others from Nicaragua.

14: Nicaragua (San Emilio, 4; San Gerónimo, 6); Costa Rica (Las Cañas, 3; Miravalles, 1).

**\*Eucometis penicillata pallida** Berlepsch. ATLANTIC GRAY-HEADED TANAGER.

*Eucometis spodocephala pallida* Berlepsch, Auk, 5, p. 451, 1888—Yucatan (type in coll. of H. von Berlepsch, now in Frankfurt Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 140, 1902—Yucatan to (?)Honduras (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1079, 1912 (range); Griscom, Amer. Mus. Nov., 235, p. 17, 1926—Playa Carmen, Yucatan; idem, Bull. Amer. Mus. N. H., 64, p. 384, 1932—Guatemala (Petén?).

*Eucometis spodocephala* (not *Chlorospingus spodocephalus* Bonaparte) Sclater and Salvin, Ibis, 1860, p. 274—Vera Paz; idem, Proc. Zool. Soc. Lond., 1870, p. 836—[San Pedro], Honduras; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 307, pl. 20, fig. 2, 1883—part, Yucatan and Guatemala to Honduras (San Pedro); Boucard, Proc. Zool. Soc. Lond., 1883, p. 443—Yucatan; Sclater, Cat. Bds. Brit. Mus., 11, p. 219, 1886—part, a-e, Yucatan, British Honduras, and Guatemala (Coban); Salvin, Ibis, 1888, p. 259—Meco Island, Yucatan; Lantz, Trans. Kans. Acad. Sci., 16, p. 223, 1899—Santo Tomás, Guatemala; Dearborn, Field Mus. Nat. Hist., Orn. Ser., 1, p. 122, 1907—Los Amates, Guatemala.

*Eucometis spodocephala spodocephala* Bangs, Bull. Mus. Comp. Zool., 39, p. 154, 1903—Ceiba, Honduras; Griscom, Bull. Amer. Mus. N. H., 64, p. 384, 1932—Guatemala.

*Eucometis spodiocephala* subsp. Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 338, 1932—San Pedro, Honduras.

*Range.*—Tropical zone of Yucatan (including Meco Island), British Honduras, eastern Guatemala (Vera Paz), and Honduras (Ceiba, San Pedro).<sup>1</sup>

2: Yucatan (unspecified, 1); Guatemala (Los Amates, 1).

Genus MITROSPINGUS Ridgway

*Mitrospingus* Ridgway, Auk, 15, p. 225, 1898—type, by orig. desig., *Tachyphonus cassinii* Lawrence.

<sup>1</sup> The available material is much too scanty to ascertain whether the inhabitants of British Honduras, Guatemala, and Honduras should be referred to the Yucatan race or to another (yet unnamed) form. A bird from Belize and a female from Honduras (San Pedro) are more or less intermediate between *pallida* and *spodocephala*. While an adult from Vera Paz, Guatemala, hardly differs from the first-named by slightly deeper yellow under parts and grayer throat, another specimen (from Los Amates) closely approaches *spodocephala*. Without adequate series it is impossible to arrive at definite conclusions, but the striking resemblance of one of the Guatemalan skins to those from Yucatan seems to indicate that the relationship of these Atlantic birds are with *pallida* rather than *spodocephala*.

\***Mitrospingus cassinii cassinii** (Lawrence). CASSIN'S TANAGER.

*Tachyphonus* spec. Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 142—Falls of the Rio Truando, Colombia.

*Tachyphonus cassinii* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 297, 1861—Lion Hill, Panama Railroad (type in coll. of G. N. Lawrence, now in the American Museum of Natural History, New York).

*Eucometis cassinii* Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 351, pl. 30—Panama Railroad; Salvin, l.c., 1867, p. 139—Santiago, Veraguas.

*Eucometis cassinii* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 503—Neche, Antioquia, Colombia; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 307, 1883—part, Panama (Santiago de Veraguas, Lion Hill) and Colombia (Rio Truando, Neche); Sclater, Cat. Bds. Brit. Mus., 11, p. 219, 1886—part, spec. b-i, Santiago de Veraguas, Panama, and Colombia (Neche); Hartert, Nov. Zool., 5, p. 483, 1898—Cachaví, Ecuador; Goodfellow, Ibis, 1901, p. 468—Santo Domingo, Ecuador.

*Mitrospingus cassinii*(i) Bangs, Proc. New Engl. Zool. Cl., 2, p. 29, 1900—Loma del León, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 168, 1902—part, Panama to Ecuador; Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1116—Condoto, Colombia; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1080, 1140, 1912—part, Panama to Colombia (Rio Truando, Rio Dagua, Neche) and Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 617, 1917—Salaquí, Alto Bonito, Bagado, Juntas de Tamaná, San José, and Barbacoas, Colombia; idem, l.c., 55, p. 682, 1926—Esmeraldas, Ecuador.

*Mitrospingus cassinii cassinii* Bangs and Barbour, Bull. Mus. Comp. Zool., 65, p. 229, 1922—Mount Sapó, Darien; Griscom, l.c., 69, p. 190, 1929—Cana, Darien; Peters, l.c., 71, p. 343, 1931—Cricamola, Chiriquí Lagoon, Panama; Griscom, l.c., 72, p. 371, 1932—Permé, Obaldia, and Ranchon, Darien.

*Range*.—Tropical zone of western Ecuador and Colombia (east through Antioquia to the lower Cauca), and Panama, west to Veraguas and the Chiriquí Lagoon (Cricamola).<sup>1</sup>

2: Colombia (Juntas de Tamaná, Rio San Juan, Cauca, 1; Puerto Valdivia, Cauca River, 1).

\***Mitrospingus cassinii costaricensis** Todd.<sup>2</sup> TODD'S TANAGER.

*Mitrospingus cassinii costaricensis* Todd, Proc. Biol. Soc. Wash., 35, p. 93, July, 1922—El Hogar, Costa Rica (type in the Carnegie Museum);

<sup>1</sup> Birds from Colombia and western Ecuador agree perfectly with three from the Canal Zone.

*Additional material examined*.—Ecuador: Ventana (alt. 90 ft.), 4; Lita (alt. 3,000 ft.), 4.—Colombia: Rio Dagua, 6; Condoto, 2.—Panama: Lion Hill, 3.

<sup>2</sup> *Mitrospingus cassinii costaricensis* Todd: Very similar to *M. c. cassinii*, but throat darker gray, nearly as dark as the sides of the head; the breast more greenish (less sulphine yellow); the crissum less tinged with cinnamomeous. Size perhaps slightly larger.

Six specimens from Costa Rica examined.



Peters, Bull. Mus. Comp. Zool., 71, p. 343, 1931—Boquete Trail and Guabo, Almirante Bay, western Panama (crit.).

*Tachyphonus cassinii* (not of Lawrence, 1861) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—Angostura, Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica.

*Eucometis cassini* Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 307, 1883—part, Angostura, Costa Rica; Sclater, Cat. Bds. Brit. Mus., 11, p. 219, 1886—part, spec. a, Costa Rica; Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 14, p. 473, 1891—Jiménez, Costa Rica (descr. of young).

*Mitrospingus cassini* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 168, 1902—part, Costa Rica (Angostura, Jiménez); Carriker, Ann. Carnegie Mus., 6, p. 836, 1910—Guayábo, Jiménez, Carrillo, Guácimo, Tuís, Guápiles, El Hogar, and Bonilla, Costa Rica (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1080, 1140, 1912—part, Costa Rica.

*Range.*—Tropical zone of Caribbean Costa Rica and the adjoining section of extreme western Panama (Almirante Bay).

2: Costa Rica (El Hogar, 2).

### **Mitrospingus oleagineus** (Salvin).<sup>1</sup> SALVIN'S GREEN-BACKED TANAGER.

*Eucometis oleaginea* Salvin, Ibis, (5), 4, p. 500, 1886—Mount Twek-quay, Caramang River, British Guiana (type in Salvin-Godman Collection, now in British Museum, examined).

*Mitrospingus oleagineus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1080, 1912—Mount Twek-quay; Chubb, Bds. Brit. Guiana, 2, p. 539, 1921—Roraima and Mount Twek-quay; Chapman, Bull. Amer. Mus. N. H., 63, p. 132, 1931—Arabupu, Roraima.

*Range.*—Tropical zone of the mountains of British Guiana (Mounts Roraima and Twek-quay).

### Genus RHODINOCICHLA Hartlaub<sup>2</sup>

*Rhodinocichla* Hartlaub, Journ. Orn., 1, p. 33, Jan., 1853—type, by orig. desig., *Furnarius roseus* Lesson.

<sup>1</sup> *Mitrospingus oleagineus* (Salvin): Similar in general form to *M. cassinii*, but larger; back, upper wing coverts and external edges of inner secondaries yellowish citrine (like the crown) instead of dark grayish olive; forehead and sides of head more slate-gray and less blackish; throat much paler gray; under parts much brighter yellow, the flanks only tinged with greenish; under tail coverts olivaceous edged with orange buff; axillaries and under wing coverts pale grayish edged with pale yellow (not wholly deep grayish olive), etc. Wing, 95–96; tail, 87–89; bill, 17–18.

In spite of its widely separated habitat, this strongly marked bird may ultimately prove to be conspecific with *M. cassinii*.

*Material examined.*—British Guiana: Mount Twek-quay, 1 (the type); Roraima, 1.

<sup>2</sup> Clark (Auk, 30, pp. 11–15, 1913) considers this genus, which had been variously referred to the mockingbirds (*Mimidae*) or warblers (*Compsothlypidae*), as being tanagerine in its affinities and most closely related to *Mitrospingus*.

*Rhodinocincla* Reichenbach, Handb. Spec. Orn., livr. 4, pp. 148, 201, Aug. 1, 1853—same type.

*Cichlallopia* Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 6, 1854—type, by orig. desig., *Turdus vulpinus* Hartlaub=*Furnarius roseus* Lesson; idem, Not. Orn. Coll. Delattre, p. 30, 1854.

*Rhodocincla* Sundevall, Meth. Nat. Av. Disp. Tent., p. 13, 1872—emendation of *Rhodinocichla* Hartlaub.

**\**Rhodinocichla rosea rosea* (Lesson). VENEZUELAN THRUSH-TANAGER.**

*Furnarius roseus* Lesson, Illust. Zool., livr. 2, pl. 5, Sept., 1832—"du Brésil et du district peu connu de San-José," errore<sup>2</sup> (descr. of male; location of type not specified); idem, Compl. Oeuvr. Buffon, 9, p. 141, 1837—same locality.

*Turdus vulpinus* Hartlaub, Rev. Mag. Zool., (2), 1, p. 276, 1849—Caracas, Venezuela (descr. of female; type in Hamburg Museum); idem, Proc. Zool. Soc. Lond., 18, "1850," p. 276, pl. 32 (=female)—Caracas; idem, Journ. Orn., 2, p. 259, 1854—Caracas (crit.); Bonaparte, Compt. Rend. Acad. Sci. Paris, 38, p. 6, 1854; idem, Not. Orn. Coll. Delattre, p. 29, 1854—Caracas.

*Rhodinocichla rosea* Sclater, Proc. Zool. Soc. Lond., 23, p. 141, 1855—part, Aragua, Venezuela; Cabanis and Heine, Mus. Hein., 2, p. 23, 1859—Caracas; Baird, Rev. Amer. Bds., 1, p. 91, 1864—part, Caracas; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, pp. 166, 626—Caracas and San Esteban, Carabobo; Salvin and Godman, Biol. Centr.-Amer., 1, p. 38, 1879—part, Venezuela; Sharpe, Cat. Bds. Brit. Mus., 6, p. 366, 1881—part, Venezuela; Robinson and Richmond, Proc. U. S. Nat. Mus., 24, p. 177, 1901—La Guaira and San Julián, near Caracas.

*Rhodinocichla rosea rosea* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 45, 1912—San Esteban, Carabobo; Hellmayr, Verh. Orn. Ges. Bay., 13, p. 303, 1918—northern Venezuela, from "Bermúdez" to Ejido, Mérida (crit.).

*Rhodinocichla rosea vulpina* Hartert, Nov. Zool., 23, p. 229, 1916—Caracas, "Caripé," San Esteban, Tocuyo, and "Ejido," Venezuela (crit.).

*Range.*—Tropical zone of northern Venezuela, from the Caracas region west to Lara (Bucarito, near Tocuyo) and probably Trujillo.<sup>3</sup> 7: Venezuela (Caracas, Federal District, 7).

<sup>1</sup> Cf. Mathews, Nov. Zool., 18, p. 12, 1911.

<sup>2</sup> Caracas, Venezuela, substituted as type locality by Hellmayr (Verh. Orn. Ges. Bay., 13, p. 303, 1918).

<sup>3</sup> The Venezuelan form, which we have shown to be entitled to Lesson's term (cf. Hellmayr, Verh. Orn. Ges. Bay., 13, pp. 302-303, 1918), appears to be restricted to the Tropical zone of the north coast districts. All the authentic specimens examined are either from the Caracas region or from the San Esteban Valley, Carabobo. The Tring Museum has also skins from near Tocuyo, Lara. Other examples (in the same collection) said to be from "Caripé" (inland of Cumaná) and "Ejido, Mérida" are probably incorrectly labeled. They were obtained by A. Mocuerys, whose localities, in several instances, have proved to be unreliable.

*Additional material examined.*—Rio Maméra, near Caracas, 2; San Esteban, Carabobo, 8; near Tocuyo, Lara, 2.

**\**Rhodinocichla rosea harterti* Hellmayr.<sup>1</sup> COLOMBIAN THRUSH Tanager.**

*Rhodinocichla rosea harterti* Hellmayr, Verh. Orn. Ges. Bay., 13, p. 304, May, 1918—"Bogotá," Colombia (type in Munich Museum).

*Furnarius roseus* (not of Lesson) Lafresnaye, Rev. Zool., 8, p. 10, 1845—Colombia (crit., notes on adult and young male).

*Rhodinocichla rosea* Sclater, Proc. Zool. Soc. Lond., 23, p. 141, 1855—part, "Bogotá"; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 38, 1879—part, Colombia; Sharpe, Cat. Bds. Brit. Mus., 6, p. 366, 1881—part, spec. a, b, Colombia.

*Rhodinocichla rosea rosea* Hartert, Nov. Zool., 23, p. 229, 1916—Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 36, p. 531, 1917—San Antonio, south of Bogotá.

*Range.*—Tropical zone of Colombia (only known from native "Bogotá" collections and from San Antonio, south of Bogotá).

1: Colombia (unspecified, 1).

**\**Rhodinocichla rosea eximia* Ridgway.<sup>2</sup> PANAMA THRUSH Tanager.**

*Rhodinocichla rosea eximia* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 770, 1902—"Isthmus of Panama and north to southern Costa Rica" (type not specified, probably in U. S. National Museum); Bangs, Auk, 24, p. 306, 1907—Boruca, Costa Rica; Carriker, Ann. Carnegie Mus., 6, pp. 331, 793, 1910—El General, Boruca de Térraba, and Buenos Aires, Costa Rica (habits); Hellmayr, Verh. Orn. Ges. Bay., 13, p. 305, 1918—Panama to southwestern Costa Rica (crit.); Stone, Proc. Acad. Nat. Sci. Phila., 70, p. 279, 1918—Tabernilla, Pedro Miguel, and Mount Hope, Panama Canal Zone (song).

*Rhodinocichla rosea* (not *Furnarius roseus* Lesson) Sclater, Proc. Zool. Soc. Lond., 23, p. 141, 1855—part, Panama and "Guatemala" (errore); idem, l.c., 24, p. 140, 1856—between the rivers David and Chiriquí; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 7, p. 292, 1861—Isthmus of Panama; Sclater and Salvin, Proc. Zool. Soc. Lond., 1864, p. 345—Panama Railroad; Baird, Rev. Amer. Bds., 1, p. 91, 1864—part, Panama Railroad; Salvin,

<sup>1</sup> *Rhodinocichla rosea harterti* Hellmayr: Similar to *R. r. rosea*, but with markedly longer wings; adult males with upper parts and flanks darker, deep mouse gray to dark mouse gray, and the grayish edges to remiges and wing coverts less prominent; female likewise darker above without any olivaceous tinge (except on the tail coverts), with the supra-loral streak and under parts deeper rufous, and flanks darker, less suffused with brownish. Wing, 86–89, (female) 79–82; tail, 84–88½, (female) 80–83; bill, 19–21.

*Additional material examined.*—Colombia: "Bogotá," 12.

<sup>2</sup> *Rhodinocichla rosea eximia* Ridgway: Similar to *R. r. harterti*, but with stouter, heavier bill; adult male even darker, more blackish on the upper parts and flanks, with hardly perceptible (if any) grayish fringes to the wing coverts; female also darker above. Size about the same.

*Additional material examined.*—Panama: Lion Hill, 2; Paraiso Station, 1; Chiriquí, 5.—Costa Rica: Boruca, 10.

Proc. Zool. Soc. Lond., 1867, p. 133—Santa Fé (Veraguas) and David; idem, l.c., 1870, p. 180—Veraguas (Calovévora, Chitrá) and Chiriquí (Mina de Chorcha); Frantzius, Journ. Orn., 17, p. 291, 1869—"Costa Rica"; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 38, 1879—part, "Guatemala" (errore), "Costa Rica," and Panama (David, "Volcan de Chiriquí," Mina de Chorcha, Chitrá, Calovévora, Santa Fé, Lion Hill); Sharpe, Cat. Bds. Brit. Mus., 6, p. 366, 1881—part, spec. c, Santa Fé, Panama; Ridgway, Proc. U. S. Nat. Mus., 16, p. 609, 1893—Buenos Aires, Costa Rica (crit.); Cherrie, Anal. Inst. Fis.-Geog. y Mus. Nac. Costa Rica, 4, p. 134, 1893—Buenos Aires, Costa Rica (descr. of male and female); Bangs, Auk, 18, p. 368, 1901—Divalá, Chiriquí; idem, Proc. New Engl. Zool. Cl., 3, p. 60, 1902—Boquete and Bugaba, Chiriquí; Thayer and Bangs, Bull. Mus. Comp. Zool., 46, p. 221, 1906—Savanna of Panama; Hallinan, Auk, 41, p. 325, 1924—Gorgona, Panama Canal Zone.

*Rhodinocichla rosea a rosea* Ridgway, Proc. U. S. Nat. Mus., 1, p. 247, 1878—Panama and Veragua (diag.).

*Range*.—Tropical zone of Panama (east to the Canal zone) and southwestern Costa Rica (Térraba Valley).

10: Costa Rica (Buenos Aires, Puntarenas, 9); Panama (Veragua, Veraguas, 1).

\**Rhodinocichla rosea schistacea* Ridgway. MEXICAN THRUSH Tanager.

*Rhodinocichla rosea*  $\beta$  *schistacea* Ridgway, Proc. U. S. Nat. Mus., 1, p. 247, Dec., 1878—Sierra Madre of Colima and Rio Mazatlan, Mexico (type, from Sierra Madre de Colima, in U. S. National Museum).

*Rhodinocichla rosea* (not *Furnarius roseus* Lesson) Baird, Rev. Amer. Bds., 1, p. 91, 1864—part, Colima and Mazatlan; Finsch, Abhandl. Naturw. Ver. Bremen, 2, p. 329, 1870—Mazatlan; Lawrence, Mem. Bost. Soc. N. H., 2, p. 267, 1874—Mazatlan, Sinaloa, and Sierra Madre of Colima (habits, song); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 38, 1879—part, Mazatlan and Sierra Madre of Colima.

*Rhodinocichla schistacea* Sharpe, Cat. Bds. Brit. Mus., 6, p. 367, 1881—western Mexico; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 772, 1902—western Mexico, from Sinaloa to Tepic (monog.).

*Rhodinocichla rosea schistacea* Hellmayr, Verh. Orn. Ges. Bay., 13, p. 305, 1918—western Mexico (diag.).

*Range*.—Tropical zone of western Mexico, in states of Sinaloa (Mazatlan), Jalisco (Ixtapa), Colima (Colima, Sierra Madre), and Nayarit (Santiago).

7: Mexico (Colima, 7).

Genus CALYPTOPHILUS Cory<sup>1</sup>

*Calyptophilus* Cory, Auk, 1, p. 3, 1884—type, by monotypy, *Phoenicophilus frugivorus* Cory.

<sup>1</sup> About its systematic position, cf. Miller, Auk, 43, pp. 356–357, 1918.



**\**Calyptophilus frugivorus frugivorus* (Cory). HISPANIOLAN  
CHAT Tanager.**

*Phoenicophilus frugivorus* Cory,<sup>1</sup> Quart. Journ. Bost. Zool. Soc., 2, No. 4, p. 45, Oct., 1883—"Santo Domingo" (type, from Almercen [= Villa Rivas], in coll. of C. B. Cory, now in Field Museum).

*Calyptophilus frugivorus* Cory, Auk, 1, p. 3, 1884—Santo Domingo (descr.); idem, Birds Haiti & San Domingo, p. 59, pl. [9], 1885—Almercen; idem, Auk, 3, p. 201, 1886—Santo Domingo (descr.); Sclater, Cat. Bds. Brit. Mus., 11, p. 235, 1886—Arenoso, Santo Domingo; Cory, Bds. W. Ind., p. 88, 1889—Santo Domingo (descr.); Tristram, Cat. Coll. Tristram, p. 222, 1889—Arenoso; Cory, Cat. W. Ind. Bds., p. 114, 1892—Santo Domingo; idem, Auk, 12, p. 279, 1895—Santo Domingo; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 14, 1896—Aguacate; Christy, Ibis, 1897, p. 323—La Vega; Ridgway, Bull. U. S. Nat. Mus., 50, Part 4, p. 279, 1907—Santo Domingo (monog.); Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 364, 1909—La Vega and Miranda, Santo Domingo; Kaempfer, Journ. Orn., 72, p. 184, 1924—"Cotuf, Rio Yuna" [= Villa Rivas], Santo Domingo.

*Calyptophilus frugivorus frugivorus* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 424, 1931—Dominican Republic (monog.).

*Range*.—Dominican Republic, eastern portion of the island of Haiti (Hispaniola), Greater Antilles.

18: Hispaniola (Villa Rivas, 11; Samaná, 2; La Vega, 2; Aguacate, 3).

***Calyptophilus frugivorus abbotti* Richmond and Swales.<sup>2</sup>  
GONAVE CHAT Tanager.**

*Calyptophilus frugivorus abbotti* Richmond and Swales, Proc. Biol. Soc. Wash., 37, p. 107, 1924—La Mahotiére, Gonave Island, Haiti (type in U. S. National Museum); Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 516, 1928—Gonave Island; Danforth, Auk, 46, p. 374, 1929—Gonave Island; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 426, 1931—Gonave Island (monog.).

*Range*.—Gonave Island, off Haiti (Hispaniola), Greater Antilles.

<sup>1</sup> The "Merle olive de Saint-Domingue" of Buffon and Daubenton (Pl. Enl., pl. 273, fig. 1), whose only source is "Le Merle olive de S. Domingue" of Brisson (Orn., 2, p. 296, pl. 27, fig. 2), and upon which *Turdus indicus* P. L. S. Müller (Natarsyst., Suppl., p. 145, 1776) as well as *Turdus virens* Boddaert (Tabl. Pl. Enl., p. 16, Dec., 1783) are based, can hardly have anything to do with *Calyptophilus*. It is described as being the size of *Sylvia curruca* (Linn.), and the coloration does not agree either.

<sup>2</sup> *Calyptophilus frugivorus abbotti* Richmond and Swales: Similar to *C. f. frugivorus*, but slightly smaller, with shorter, slenderer bill, and of paler coloration; the upper parts less brownish; the sides, flanks, and under tail coverts lighter; the axillars and under wing coverts paler yellow. Wing, 81–92, (female) 77; tail, 77–95; bill, 20–21.

Four specimens examined.

***Calyptophilus frugivorus tertius* Wetmore.<sup>1</sup> LA HOTTE CHAT  
TANAGER.**

*Calyptophilus tertius* Wetmore, Smiths. Misc. Coll., 81, No. 13, p. 2, May 15, 1929—higher slopes of Morne La Hotte, Haiti (type in the American Museum of Natural History, New York).

*Calyptophilus tertius tertius* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 427, 1931—Morne La Hotte (monog.); Wetmore and Lincoln, Proc. U. S. Nat. Mus., 82, art. 25, p. 65, 1933—Pic de Macaya, La Hotte region, Haiti.

*Range*.—Mountains (Morne La Hotte) of southwestern Haiti, island of Haiti (Hispaniola), Greater Antilles.

***Calyptophilus frugivorus selleanus* Bond.<sup>2</sup> LA SELLE CHAT  
TANAGER.**

*Calyptophilus frugivorus selleanus* Bond, Proc. Acad. Nat. Sci. Phila., 81, p. 473, Oct. 3, 1929—Morne Malanga, Haiti (type in the Academy of Natural Sciences, Philadelphia); Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 428, 1931—Massif de la Selle (monog.).

*Calyptophilus frugivorus frugivorus* (not of Cory) Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 516, 1928—La Selle Mountains (Morne La Selle, Morne Brouet, Morne Trenchant, Crête à Piquants; song).

*Range*.—Mountains (Massif de la Selle) of southeastern Haiti, island of Haiti (Hispaniola), Greater Antilles.

Genus **PHAENICOPHILUS** Strickland

*Phaenicophilus* Strickland, Contrib. Orn., 1851, p. 104—type, by subs. desig. (G. R. Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *Turdus palmarum* Linnaeus.

*Phoenicophilus* G. R. Gray, Cat. Gen. Subgen. Bds., p. 74, 1855—emendation.

**\**Phaenicophilus palmarum poliocephalus* (Bonaparte).<sup>3</sup> GRAY-  
CROWNED PALM TANAGER.**

*Dulus poliocephalus* Bonaparte, Rev. Mag. Zool., (2), 3, p. 178, 1851—"Hispaniola" = Haiti (type in Paris Museum).

<sup>1</sup> *Calyptophilus frugivorus tertius* Wetmore: Nearest to *C. f. frugivorus*, but somewhat larger, with stronger bill; back much darker olive; wings, tail, and upper tail coverts deep brown (bister), different from the remainder of the dorsal surface; feathers round the eye dusky instead of yellow. Wing, 93–104, (female) 86–92; tail, 96–108, (female) 84–90; bill, 23–27.

Four specimens of this strongly marked race have been examined.

<sup>2</sup> *Calyptophilus frugivorus selleanus* Bond: Nearest to *C. f. tertius*, but smaller in all dimensions, and upper parts and sides deeper olive. Wing, 91–98, (female) 83–84; tail, 90–94, (female) 82–83; bill, 23–26.

This form, which we have not seen, appears to connect *C. f. frugivorus* and *C. f. tertius*.

<sup>3</sup> The gray-capped and gray-bellied forms, though heretofore separated specifically, are clearly geographic representatives of *P. palmarum*.

- Phaenicophilus poliocephalus* Strickland, Contrib. Orn., 1851, p. 104; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 128, 1902—Haiti.
- Phaenicophilus palmarum* (not *Turdus palmarum* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 24, p. 84, 1856—"San Domingo" = Haiti (part, descr. of "female").
- Phaenicophilus dominicensis* Cory, Bull. Nutt. Orn. Cl., 6, p. 129, 1881—Haiti (type, from Jacmel, in coll. of C. B. Cory, now in Field Museum); idem, l.c., p. 152, 1881—vicinity of Jacmel; idem, Bds. Haiti and San Dom., p. 58, pl. [8], 1884—Jacmel; idem, Auk, 3, p. 200, 1886—Haiti and "San Domingo" (descr.).
- Phaenicophilus poliocephalus* Sclater, Cat. Bds. Brit. Mus., 11, p. 234, 1886—western coast of "San Domingo" = Haiti (ex Cory); Cory, Bds. W. Ind., p. 87, 1889—"San Domingo" = Haiti; idem, Cat. W. Ind. Bds., p. 114, 1892—Haiti and "San Domingo"; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1087, 1912—Haiti.
- Phaenicophilus dominicanus* Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 363, 1909—"Miranda, Dominican Republic," errore.
- Phaenicophilus poliocephalus poliocephalus* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 516, 1928—Morne la Casière, Haiti (range, call-note).
- Phaenicophilus poliocephalus poliocephalus* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 416, 1931—southwestern Haiti (monog.); Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 38, 1932—Baradères Peninsula, Haiti; Wetmore and Lincoln, l.c., 82, art. 25, p. 63, 1933—La Hotte region, Haiti.

*Range*.—Southwestern Haiti (Tiburon Peninsula west of the Trouin Valley, including Grand Cayemite Island), island of Hispaniola, Greater Antilles.<sup>1</sup>

3: Haiti (Jacmel, 3).

### *Phaenicophilus palmarum coryi* Richmond and Swales.<sup>2</sup>

#### GONAVE PALM TANAGER.

- Phaenicophilus poliocephalus coryi* Richmond and Swales, Proc. Biol. Soc. Wash., 37, p. 107, 1924—Gonave Island, off Haiti (type in U. S. National Museum); Danforth, Auk, 46, p. 374, 1929—Gonave Island; Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 418, 1931—Gonave (monog.); Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 38, 1932—Gonave.
- Phaenicophilus poliocephalus coryi* Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 517, 1928—Gonave (nest and eggs descr.).

<sup>1</sup> The range of this form is evidently restricted to the southwestern peninsula west of the Trouin Valley, the most easterly recorded localities being Jacmel and Morne la Casière (eastern La Hotte). Verrill's record from "Miranda" is doubtless an error.

<sup>2</sup> *Phaenicophilus palmarum coryi* Richmond and Swales: Similar to *P. p. poliocephalus* in having the upper part of the head except the forehead gray, but larger and with the middle of the breast and abdomen white. Wing, 85–93, (female) 88–89; tail, 65–71; bill, 19–22.

The Gonave Island race, of which we have seen five specimens, shows an undeniable approach to *P. p. palmarum* by the whiteness of the median under parts.

*Range*.—Gonave Island, off the north coast of Tiburon Peninsula, island of Hispaniola, Greater Antilles.

**Phaenicophilus palmarum tetraopes** Wetmore and Lincoln.<sup>1</sup>  
ILE À VACHE PALM TANAGER.

*Phaenicophilus poliocephalus tetraopes* Wetmore and Lincoln, Auk, 49, p. 36, 1932—Ile à Vache, Haiti (type in U. S. National Museum); Wetmore, Proc. U. S. Nat. Mus., 81, art. 2, p. 39, 1932—Ile à Vache; idem and Lincoln, l.c., 82, art. 25, pp. 11, 63, 1933—Ile à Vache.

*Range*.—Ile à Vache, off the south coast of Tiburon Peninsula, island of Hispaniola, Greater Antilles.

**\*Phaenicophilus palmarum palmarum** (Linnaeus). HISPANIO-  
LAN PALM TANAGER.

*Turdus palmarum* Linnaeus,<sup>2</sup> Syst. Nat., 12th ed., 1, p. 295, 1766—part, based on "Le Palmiste" [and "Le Palmiste à teste noire"] Brisson, Orn., 2, pp. 301, [303], pl. 29, figs. 1, [2]; "Cayenne" (errore) = Santo Domingo (type in coll. of M. de Réaumur).

*Phaenicophilus palmarum* Strickland, Contrib. Orn., 1851, p. 104; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 127, 1902—Haiti (monog.); Danforth, Auk, 46, p. 373, 1929—Seibo, Santo Domingo, Haina, Monte Cristi, and San Juan, Dominican Republic.

*Phaenicophilus palmarum* Sclater, Proc. Zool. Soc. Lond., 24, p. 84, 1856—Santo Domingo (part, descr. of male); Sallé, l.c., 25, p. 232, 1857—Santo Domingo (habits); Cory, Bull. Nutt. Orn. Cl., 6, p. 152, 1881—Le Coup, Haiti; Salvin, Cat. Strickl. Coll., p. 198, 1882—Santo Domingo; Tristram, Ibis, 1884, p. 168—near Samaná, Santo Domingo; Cory, Bds. Haiti & San Domingo, p. 56, pl. [21], fig. 5, 1884—Puerto Plata (Santo Domingo) and Le Coup (Haiti); Sclater, Cat. Bds. Brit. Mus., 11, p. 234, 1886—Santo Domingo; Cory, Auk, 3, p. 200, 1886—"San Domingo" (descr.); idem, Bds. W. Ind., p. 87, 1889—Haiti and "San Domingo"

<sup>1</sup> *Phaenicophilus palmarum tetraopes* Wetmore and Lincoln: "Similar to *P. p. poliocephalus*, but gray of under parts, crown, and hindneck lighter; dorsal surface lighter green; abdomen more whitish; bill slightly longer. Wing, 82–90, (female) 81½–84; tail, 68–72; bill, 20–23." (Wetmore and Lincoln, l.c.).

According to the describers, the lighter coloration of this race marks a step in the direction of the still paler, white-bellied *P. p. coryi*.

<sup>2</sup> It is perhaps somewhat doubtful if Linnaeus's name can stand for the present form. While Brisson correctly distinguished between "Le Palmiste" (p. 301, pl. 29, fig. 1), which is *P. p. poliocephalus*, and "Le Palmiste à teste noire" (p. 303, pl. 29, fig. 2), which is indeed the black-capped eastern Palm Tanager, Linnaeus confused them under one heading, his account giving, furthermore, rise to the question as to which of the two components formed its principal basis. In the initial diagnosis he says "*capite nigro maculis utrinque tribus albis*," which is obviously taken from Brisson's "Le Palmiste à teste noire," whereas the last paragraph reads "*caput antice nigrum*," which clearly refers to "Le Palmiste" (= *T. p. poliocephalus*). It should also be noted that Linnaeus quotes only the page reference to Brisson's "Le Palmiste" (p. 301). In view of the confusion that would result from transferring the name *palmarum* to the bird known as *P. p. poliocephalus*, I cannot bring myself to advocate this undesirable change in nomenclature.



(descr.); Tristram, Cat. Coll. Bds. Tristram, p. 222, 1889—Samaná, Dominican Republic; Cory, Cat. W. Ind. Bds., p. 114, 1892—San Domingo and Haiti; Cherrie, Field Columb. Mus., Orn. Ser., 1, p. 14, 1896—San Domingo (habits); Christy, Ibis, 1897, p. 323—Sánchez and La Vega, Dominican Republic; Verrill and Verrill, Proc. Acad. Nat. Sci. Phila., 61, p. 363, 1909—Dominican Republic; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1087, 1912—Haiti; Peters, Bull. Mus. Comp. Zool., 61, p. 424, 1917—Monte Cristi, Bulla, Sosúa, Chocó, and Rio San Juan, Dominican Republic; Bond, Proc. Acad. Nat. Sci. Phila., 80, p. 518, 1928—Haiti east of the Trouin Valley (habits); Moltoni, Atti Soc. Ital. Sci. Nat., 68, p. 326, 1929—Haina, Bonao, and San Juan, Dominican Republic.

*Arremon palmarum* Bryant, Proc. Bost. Soc. Nat. Hist., 11, p. 92, 1866—Santo Domingo.

*Phaenicophilus palmarum palmarum* Wetmore and Swales, Bull. U. S. Nat. Mus., 155, p. 419, 1931 (monog.); idem and Lincoln, Proc. U. S. Nat. Mus., 82, art. 25, p. 64, 1933—Hispaniola (various localities).

*Range*.—Island of Hispaniola (excepting Tortue, the southwestern [Tiburón] Peninsula, and outlying islands), Greater Antilles.

266: Hispaniola (Le Coup, Haiti, 13; Kenscoff, Haiti, 3; Puerto Plata, 30; Maniel, 38; Catara, 73; Aguacate, 38; Puerto Resoli, 1; Honduras, 30; San Cristóbal, 6; Santo Domingo City, 34).

### ***Phaenicophilus palmarum eurous* Wetmore.<sup>1</sup> SAONA PALM TANAGER.**

*Phaenicophilus palmarum eurous* Wetmore, Smiths. Misc. Coll., 81, No. 13, p. 3, May, 1929—Saona Island, Dominican Republic (type in U. S. National Museum); idem and Swales, Bull. U. S. Nat. Mus., 155, p. 421, 1931—Saona Island; Bond, Proc. Acad. Nat. Sci. Phila., 85, p. 369, 1934—Saona Island (crit.).

*Range*.—Saona Island, off the eastern end of the island of Hispaniola.

### **Genus TRICHOTRAUPIS Cabanis**

*Trichothraupis* Cabanis, Mus. Hein., 1, p. 23, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 72, 1855), *Tachyphonus quadricolor* Vieillot = *Muscicapa melanops* Vieillot.

### **\**Trichothraupis melanops* (Vieillot). FOUR-COLORED TANAGER.**

*Muscicapa melanops* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 21, p. 452, 1818—based on "Lindo pardo copete amarillo" Azara, No. 101; Paraguay.

<sup>1</sup> *Phaenicophilus palmarum eurous* Wetmore: "Similar to *P. p. palmarum*, but lighter in color; above brighter green, with gray of hindneck lighter, becoming nearly white on sides of neck anteriorly; below with white more extended. Wing (male), 90; tail, 67.5; bill, 20.7." (Wetmore, l.c.) Known from the type alone, a male in somewhat worn plumage. Bond, who obtained additional specimens from Saona, considers the form as inseparable from *P. p. palmarum*.

- Tachyphonus quadricolor* Vieillot, *Nouv. Dict. Hist. Nat.*, nouv. éd., 32, p. 359, 1819—"Brésil"; idem, *Tabl. Enc. Meth.*, Orn., livr. 91, p. 803, 1822—"Brésil" (type in Paris Museum); Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 164, 1856—Rio de Janeiro and Nova Friburgo.
- Tanagra auricapilla* Wied, *Reise Bras.*, 2, p. 212 (ed. in 8vo, p. 211), 1821—Arrayal da Conquista, Bahia (type in Wied Collection, now in the American Museum of Natural History, New York; cf. Allen, *Bull. Amer. Mus. N. H.*, 2, p. 220, 1889); Spix, *Av. Spec. Nov. Bras.*, 2, p. 39, pl. 52, fig. 1 (male), 2 (female), 1825—Rio de Janeiro; Wied, *Beitr. Naturg. Bras.*, 3, (1), p. 538, 1830—Bahia (Jiboya and near Barra da Vareda).
- Muscicapa galeata* Lichtenstein, *Verz. Doubl. Berliner Mus.*, p. 56, 1823—São Paulo (type in Berlin Museum).
- Tachyphonus suchii* Swainson, *Quart. Journ. Sci., Litt. & Arts Roy. Inst.*, 20, No. 39, p. 66, Oct., 1825—southern parts of Brazil (type in coll. of W. Swainson, now in University Museum, Cambridge, England).
- Trichothraupis quadricolor* Cabanis, *Mus. Hein.*, 1, p. 23, 1851—Brazil; Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 117, 1856—Bahia to São Paulo, and Paraguay (monog.); idem, *Cat. Coll. Amer. Bds.*, p. 84, 1862—Brazil; Euler, *Journ. Orn.*, 15, p. 408, 1867—Cantagallo, Rio (nest descr.); Reinhardt, *Vidensk. Medd. Naturhist. Foren.*, 1870, p. 426—Minas Geraes (Lagõa Santa), São Paulo (Campinas, Hytú, São Bento de Araraquara), and Rio de Janeiro (Nova Friburgo, Macahé); Pelzeln, *Orn. Bras.*, 3, p. 212, 1870—Rio de Janeiro (Registro do Sai) and São Paulo (Ypanema, Cimiterio); Berlepsch, *Journ. Orn.*, 21, p. 244, 1873—Blumenau, Santa Catharina; Pelzeln, *Nunq. Otios.*, 2, p. 292, 1874—Nova Friburgo, Rio; Cabanis, *Journ. Orn.*, 22, p. 82, 1874—Cantagallo, Rio; Taczanowski, *Proc. Zool. Soc. Lond.*, 1874, p. 513—Amable Maria and Ropaybamba, Peru; idem, *l.c.*, 1882, p. 14—Huambo, Peru; White, *l.c.*, 1882, p. 597—Concepción and San Javier, Misiones; Taczanowski, *Orn. Pér.*, 2, p. 506, 1884—Peru (Amable Maria, Ropaybamba, Pumarca, Huambo); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 220, 1886—southern Brazil (Nova Friburgo, Ypanema, "Pelotas"), Paraguay, and Misiones (San Javier); Sclater and Hudson, *Arg. Orn.*, 1, p. 40, 1888—Misiones; Ihering, *Rev. Mus. Paul.*, 3, p. 153, 1899—São Paulo (Piracicaba, Itatiba, Tieté); Oberholser, *Proc. U. S. Nat. Mus.*, 25, p. 143, 1902—Sapucay, Paraguay.
- Trichothraupis melanops* Berlepsch and Ihering, *Zeits. Ges. Orn.*, 2, p. 120, 1885—Taquara, Rio Grande do Sul; Berlepsch, *Journ. Orn.*, 35, p. 115, 1887—Paraguay; Salvadori, *Boll. Mus. Zool. Torino*, 10, No. 208, p. 4, 1895—Pirapó, Paraguay; Ihering, *Ann. Est. Rio Grande do Sul*, 16, p. 120, 1899—Mundo Novo, Rio Grande do Sul; idem, *Rev. Mus. Paul.*, 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; Salvadori, *Boll. Mus. Zool. Torino*, 15, No. 378, p. 17, 1900—Tebicuarí, Paraguay; Hellmayr, *Abhandl. 2. Kl. Bayr. Akad. Wiss.*, 22, No. 3, p. 673, 1906 (crit.); Ihering, *Cat. Faun. Braz.*, 1, p. 364, 1907—São Paulo (Piracicaba, Itatiba, Tieté, São Sebastião, Baurú, Rio Frio, Alto da Serra, Bebedouro, Itapura) and Paraná (Ourinho); Chubb, *Ibis*, 1910, p. 628—Sapucay, Paraguay; Dabbene, *Anal. Mus. Nac. Buenos Aires*, 18, pp. 377, 436,

1910—Misiones (San Javier, Posadas, Santa Ana); idem, l.c., 23, p. 357, 1912—Paso Yuvay, Paraguay; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1080, 1141, 1912—Brazil (Bahia to Rio Grande do Sul), Paraguay, Misiones, Peru, and Bolivia (Santa Cruz, Samaipata, Bueyes) (crit.); Dabbene, Bol. Soc. Physis, 1, p. 250, 1913—Santa Ana, Misiones; Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay; Hellmayr, Verh. Orn. Ges. Bay., 12, p. 130, 1915—Victoria, Espirito Santo (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 193, 1926—Paraná (Cará Pintada, Vermelho, Therezina, Candido de Abreu, Salto de Uba); Laubmann, Wiss. Ergebn. Deuts. Gran. Chaco Exp., Vögel, p. 274, 1930—Buena Vista, Santa Cruz, Bolivia.

*Trichothraupis melanops auricapilla* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 674, 1906—Engenheiro Reeve, Espirito Santo (crit.).

*Trichothraupis melanops melanops* Hartert and Venturi, Nov. Zool., 16, p. 173, 1909—Posadas, Misiones; Holt, Bull. Amer. Mus. N. H., 57, p. 322, 1928—Serra do Itatiaya.

*Range.*—Tropical zone of southeastern Brazil, from southern Bahia to Rio Grande do Sul, west to Matto Grosso; Misiones; Paraguay east of the Rio Paraguay; eastern Bolivia (Santa Cruz, Buena Vista, Bueyes, Samaipata); eastern Peru, in departments of Junín (Amable Maria, Ropaybamba, Pumamarca) and San Martín (Huayabamba Valley).<sup>1</sup>

18: Brazil (Piraputanga, Matto Grosso, 4; Rio das Velhas, Minas Geraes, 1; Rio de Janeiro, 1; Joinville, Santa Catharina, 10); Argentina (Bonpland, Misiones, 1; Puerto Segundo, Misiones, 1).

### Genus CYP SNAGRA Lesson

*Cypsnagra* Lesson, Traité d'Orn., p. 460, 1831—type, by monotypy, *Tanagra hirundinacea* Lesson.

*Leucopygia* Swainson, Nat. Hist. & Classif. Bds., 2, p. 285 (June or July) 1837;<sup>2</sup> idem, Anim. in Menag., p. 312, Dec. 31, 1837—type, by monotypy, *Leucopygia ruficollis* Swainson = *Tanagra hirundinacea* Lesson.

<sup>1</sup> The supposed distinction of a northern form (*auricapilla*), which we at one time advocated, has not been corroborated by additional material since. Birds from Espirito Santo and Rio de Janeiro seem to be precisely like others taken in southern Brazil and Paraguay. Bolivian and Peruvian specimens merely differ by very slightly paler under parts, but the divergency appears to me too insignificant to justify its recognition in nomenclature, although there is obviously a wide gap between the eastern and the Andean ranges of the species.

*Additional material examined.*—Espirito Santo: Engenheiro Reeve, 1; Victoria, 1.—Rio de Janeiro: Petropolis, 1; Colonia Alpina, Serra dos Orgãos, 9; Rio de Janeiro, 4.—São Paulo: Ypanema, 9; Cemeterio, 1; Alambary, 2; Victoria, 2.—Paraguay: Bernalcué, 1.—Bolivia: Santa Cruz, 5; Buenavista, Santa Cruz, 1; Bueyes, Santa Cruz, 1; Samaipata, 1.—Peru: Huambo, 1.

<sup>2</sup> Generic characters only given, the type species being at the time undescribed.

\**Cypsnagra hirundinacea hirundinacea* (Lesson). RED-  
THROATED TANAGER.

*Tanagra ruficollis* (not of Gmelin, 1789) Lichtenstein, Verz. Doubl. Berliner Mus., p. 30, 1823—São Paulo (type in Berlin Museum).

*Tanagra hirundinacea* Lesson, Traité d'Orn., p. 460, 1831—"Brésil" (types, collected by Auguste de Saint-Hilaire somewhere in southern Brazil,<sup>1</sup> in Paris Museum examined).

*Leucopygia ruficollis* Swainson, Anim. in Menag., p. 312, Dec. 31, 1837—interior of Bahia, Brazil (type in coll. of W. Swainson, now in University Museum, Cambridge, England); Cabanis, Mus. Hein., 1, p. 137, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 162, 1856—Lagõa Santa, Minas Geraes (habits, song).

*Tachyphonus ruficollis* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 29, 1837—Chiquitos, Bolivia (spec. examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 277, 1839—Concepción and Santiago, Chiquitos, Bolivia (descr. of adult male and "female" [= young]).

*Cypsnagra ruficollis* Bonaparte, Consp. Gen. Av., 1, p. 232, 1850—Brazil; Sclater, Proc. Zool. Soc. Lond., 24, p. 112, 1856—Bahia, "Rio," São Paulo, and Chiquitos, Bolivia (monog.); idem, Cat. Coll. Amer. Bds., p. 86, 1862—"Rio de Janeiro"; Pelzeln, Orn. Bras., 3, p. 214, 1870—São Paulo (Cimeterio, Itararé, Irisanga), Goyáz, and Matto Grosso (Cuyabá) (descr. of young); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 425—Minas Geraes (Lagõa Santa, Sete Lagõas, Paracatú) and São Paulo (Hytú, Sorocaba, Retiro, São Bento de Araraquara, Franca); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 601—Concepción and Santiago, Chiquitos, Bolivia (ex d'Orbigny); Salvin, Cat. Strickl. Coll., p. 195, 1882—Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 221, 1886—part, spec. c-f, Bahia, "Rio," and Bolivia (spec. examined); Allen, Bull. Amer. Mus. N. H., 3, p. 360, 1891—Chapada, Matto Grosso; Ihering, Rev. Mus. Paul., 3, p. 154, 1899—São Paulo; idem, Cat. Faun. Braz., 1, p. 364, 1907—São Paulo (Itapura, Rio Feio) and Matto Grosso (Porto Faya).

*Cypsnagra ruficollis ruficollis* Hellmayr, Nov. Zool., 15, p. 29, 1908—Fazenda Esperança, Goyáz.

*Cypsnagra hirundinacea* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1086, 1912—Brazil (Bahia, Goyáz, "Rio," São Paulo, Matto Grosso) and Bolivia (Chiquitos).

*Cypsnagra hirundinacea hirundinacea* Hellmayr, Nov. Zool., 30, p. 230, 1923—Chiquitos, Bolivia (crit., range); Naumburg, Bull. Amer. Mus. N. H., 60, p. 380, 1930—Matto Grosso (range); Laubmann, Anz. Orn. Ges. Bay., 2, p. 300, 1933—San Luis de la Sierra, Apa highlands, Paraguay; Pinto, Rev. Mus. Paul., 17, (2), p. 788, 1932—Tres Lagõas, Matto Grosso; idem, l.c., 20, p. 140, 1936—Fazenda Formiga, Goyáz.

*Range*.—Campo region of southern Brazil, from southern Bahia (Caravellas) through Minas Geraes and southern Goyáz (Goyáz,

<sup>1</sup> São Paulo suggested as type locality by Mrs. Naumburg (Bull. Amer. Mus. N. H., 60, p. 380, 1930).



Fazenda Esperança, Veadeiros) west to southern Matto Grosso (Cuyabá, Chapada, Porto Faya) and eastern Bolivia (Chiquitos), and south to São Paulo and extreme northeastern Paraguay (San Luis de la Sierra, Apa highlands).<sup>1</sup>

6: Brazil (Chapada, Matto Grosso, 3; Goyáz, Veadeiros, 3).

**\**Cypsnagra hirundinacea pallidigula* Hellmayr.<sup>2</sup> BUFF-THROATED TANAGER.**

*Cypsnagra ruficollis pallidigula* Hellmayr, Nov. Zool., 14, p. 350, 1907—Humaytá, Rio Madeira, Brazil (type in Tring Collection, now in the American Museum of Natural History, New York); idem, l.c., 17, p. 278, 1910—Humaytá; Reiser, Denks. Akad. Wiss. Wien, Math.-Naturw. Kl., 76, p. 185, 1925—Santo Antonio do Gilboez, Piahy.

*Cypsnagra hirundinacea pallidigula* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1086, 1142, 1912—Humaytá (Rio Madeira), Ceará, and Bahia (crit.); Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 61, 1926—Grajahú, Maranhão; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 285, 1929—Maranhão (Codó, Cocos, Ponto; Barra do Corda; Fazenda Inhuma, Alto Parnahyba) and Goyáz (Philadelphia) (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 380, 1930—Campos Novos, Matto Grosso (crit.).

*Cypsnagra pallidigula* Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 41, 1926—Ceará.

*Cypsnagra ruficollis* (not of Lesson) Sclater, Cat. Bds. Brit. Mus., 11, p. 221, 1886—part, spec. a, b, "Bahia"—Ceará (spec. examined); Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—"Yungas," Bolivia (spec. examined); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 84, 1910—Santo Antonio do Gilboez, Piahy.

*Range*.—Campo region of northern Brazil, from Bahia and Ceará west through Piahy, Maranhão, and northern Goyáz (Phila-

<sup>1</sup> Birds from Chiquitos, hill-country of eastern Bolivia, agree with a Brazilian series. The types of *C. hirundinacea* in the Paris Museum, obtained by A. de Saint-Hilaire in the interior of southern Brazil, are very dark examples with deep rufous throat and ochraceous buff flanks. According to Reinhardt, this species—a typical campos dweller—does not occur in Rio de Janeiro; but it appears to extend into the extreme south of Bahia State, since the British Museum has a specimen sent by Wucherer from the vicinity of Caravellas.

*Additional material examined*.—Brazil: "Bahia," 2; Agua Suja, near Bagagem, Minas Geraes, 2; Monte Alegre, Minas Geraes, 1; Goyáz City, 2; Fazenda Esperança, Goyáz, 2; Irisanga, São Paulo, 1; Cemeterio, São Paulo, 5; Itarare, São Paulo, 2; Cuyabá, Matto Grosso, 1; Porto Faya, Matto Grosso, 1; Chapada, Matto Grosso, 6.—Bolivia: Chiquitos, 2.

<sup>2</sup> *Cypsnagra hirundinacea pallidigula* Hellmayr: Similar in form to *C. h. hirundinacea*, but throat much paler (warm buff to ochraceous buff instead of deep tawny to chestnut-rufous); breast and abdomen less buffy with very little, if any, ochraceous tinge on the flanks; rump white instead of cream-color; bill generally stouter. Wing, 79–83, (female) 76–82; tail, 64–70; bill, 13½–15.

*Additional material examined*.—Piahy: Santo Antonio de Gilboez, 2.—"Ceará," 2.—"Bahia," 2.—Amazonas: Humaytá, Rio Madeira, 2.—Matto Grosso: Campos Novos, foot of Cerro do Norte, 1.—Bolivia: "Yungas," 1.

delphia, lower Tocantins) to the Rio Madeira (Humaytá), extreme northern Matto Grosso (Campos Novos, foot of the Serra do Norte, near the headwaters of the Rio Jamarý), and obviously into north-eastern Bolivia.<sup>1</sup>

9: Brazil (Codó, Cocos, Maranhão, 3; Canella, Ponto, Maranhão, 1; Barra do Corda, Maranhão, 2; Fazenda Inhuma, Alto Parna-hyba, Maranhão, 1; Philadelphia, Goyáz, 2).

### Genus PYRRHOCOMA Cabanis

*Pyrrhocomma* Cabanis, Mus. Hein., 1, p. 138, 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 72, 1855), *Tachyphonus ruficeps* Strickland.

#### \**Pyrrhocomma ruficeps* (Strickland). CHESTNUT-HEADED TANAGER.

*Tachyphonus ruficeps* Strickland, Ann. Mag. Nat. Hist., 13, p. 419, 1844—habitat unknown (descr. of adult male; type in coll. of H. E. Strickland, now in University Museum, Cambridge, England; cf. Salvin, Cat. Strickl. Coll., p. 196, 1882).

*Pipilopsis ruficeps* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Brazil; Des Murs, in Castelnau, Expéd. Amér. Sud, Ois., p. 69, pl. 20, fig. 2, 1856—Brazil.

*Nemosia ruficeps* Burmeister, Syst. Uebers. Th. Bras., 3, p. 159, 1856—"interior of Brazil, near Pernambuco" (errore).

*Pyrrhocomma ruficeps* Cabanis, Mus. Hein., 1, p. 138, 1851—Brazil; Sclater, Proc. Zool. Soc. Lond., 24, p. 108, 1856—Brazil (São Paulo, Ypanema) and "Paraguay (Natterer)" (monog.); Pelzeln, Orn. Bras., 3, p. 216, 1870—Ypanema, São Paulo (descr. of female); idem, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio de Janeiro; Berlepsch and Ihering, Zeits. Ges. Orn., 2, p. 120, pl. 6, fig. 1 (male), 2 (female), 1885—Taquara, Rio Grande do Sul; Sclater, Cat. Bds. Brit. Mus., 11, p. 222, 1886—southeastern Brazil (Rio de Janeiro; "Pelotas," Rio Grande do Sul);

<sup>1</sup> The range of this form is more northerly than that of *C. h. hirundinacea*. Birds from northeastern Brazil agree well with the specimens from Humaytá upon which *pallidigula* has originally been based. The alleged "Bahia" examples, forwarded by Dr. Luschnath to the late O. Salvin (now in the British Museum), show the well-known "Ceará" preparation. There are, however, two unquestionable Bahia skins in the Berlepsch Collection at Frankfurt, while another adult sent by Dr. Wucherer from Caravellas is referable to typical *hirundinacea*. Both races thus appear to occur in Bahia, though their exact ranges in that state remain to be determined. An adult male from Campos Novos, northern Matto Grosso, while slightly darker on the throat than the majority from the northeastern states, cannot be distinguished from certain individuals. *C. h. pallidigula* obviously also ranges into northeastern Bolivia. The American Museum of Natural History has an adult bird collected by H. H. Rusby and labeled "Yungas, s. 18°, 6,000 ft.," which is precisely like specimens from Maranhão. The subtropical mountain forests of Bolivia are an impossible locality for an inhabitant of the campos, and the specimen is much more likely to have been secured in the plains of north-eastern Bolivia around Reyes, where some open stretches of country are said to exist.

Ihering, Ann. Est. Rio Grande do Sul, 16, p. 120, 1899—Mundo Novo, Rio Grande do Sul; idem, Rev. Mus. Paul., 3, p. 154, 1899—São Paulo (Piracicaba, Piquete); idem, l.c., 4, p. 153, 1900—Nova Friburgo, Rio de Janeiro; Oberholser, Proc. U. S. Nat. Mus., 25, p. 144, 1902—Sapucay, Paraguay; Ihering, Cat. Faun. Braz., 1, p. 379, 1907—São Paulo (Piracicaba, Salto Grande do Paranapanema, Itararé, Rio Feio, Piquete), Paraná (Ourinho), and Paraguay (Puerto Bertoni); Hartert and Venturi, Nov. Zool., 16, p. 172, 1909—Santa Ana, Misiones; Chubb, Ibis, 1910, p. 628—Sapucay, Paraguay (descr. of young male; habits); Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 386, 1910—Santa Ana, Misiones; Chrostowski, Compt. Rend. Soc. Scient. Varsovie, 5, pp. 488, 500, 1912—Vera Guarany, Paraná; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1086, 1912—southeastern Brazil (Rio de Janeiro to Rio Grande do Sul) and Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 364, 1914—Misiones; Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 193, 1926—Paraná (Fazenda Durski, Banhados, Candido de Abreu); Holt, Bull. Amer. Mus. N. H., 57, p. 322, 1928—Serra do Itatiaya, Brazil.

*Range*.—Wooded region of southeastern Brazil, from Rio de Janeiro to Rio Grande do Sul, and the adjoining districts of Paraguay and Misiones.<sup>1</sup>

5: Brazil (Therezopolis, Rio de Janeiro, 1); Argentina (Eldorado, Misiones, 1; Puerto Segundo, Misiones, 3).

### Genus NEMOSIA Vieillot

*Nemosia* Vieillot, Analyse d'une Nouv. Ornith. Éléme., p. 32, 1816—type, by monotypy, "Tangara à coiffe noire, de Cayenne" Buffon=*Tanagra pileata* Boddaert.

#### \**Nemosia pileata pileata* (Boddaert). HOODED Tanager.

*Tanagra pileata* Boddaert, Tabl. Pl. Enl., p. 45, 1783—based on "Tangara à coiffe noire, de Cayenne" Daubenton, Pl. Enl., pl. 720, fig. 2 (adult male), Cayenne.

*Hylophilus caeruleus* Wied, Beitr. Naturg. Bras., 3, (2), p. 731, 1831—Bahia, Brazil (descr. of female; type formerly in coll. of Prince Wied; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 220, 1889).

*Hylophilus cyanoleucus* Wied, Beitr. Naturg. Bras., 3, (2), p. 734, 1831—Bahia, Brazil (descr. of male; type formerly in coll. of Prince Wied; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 220, 1889).

*Nemosia pileata* Scater, Proc. Zool. Soc. Lond., 24, p. 109, 1856—part, Cayenne, "Pará," "Mexicana" [=Mexiana Island], Bahia, and Venezuela (Caracas); Bonaparte, Bull. Soc. Linn. Normandie, 2, p. 32, 1857—Cayenne; Scater, Cat. Coll. Amer. Bds., p. 86, 1862—Cayenne and Pará; Scater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 571—"Pará"; Pelzeln, Orn. Bras., 3, p. 214, 1870—part, Forte do Rio Branco, Rio Amazonas,

<sup>1</sup> Additional material examined.—Rio de Janeiro: Nova Friburgo, 1.—São Paulo: Ypanema, 8.—Paraguay: Sapucay, 3.

and Cajútuba (near Pará), Brazil (spec. examined); Forbes, Ibis, 1881, p. 334—Pernambuco (Estancia and Cabo); Sclater, Cat. Bds. Brit. Mus., 11, p. 223, 1886—part, spec. c-1, Mexiana, lower Amazon, Pernambuco, and Bahia; Ihering, Cat. Faun. Braz., 1, p. 364, 1907—part, Bahia and Santarem; Hagmann, Zool. Jahrb. (Syst.), 26, p. 27, 1907—Mexiana; Snethlage, Journ. Orn., 65, p. 295, 1907—Marajó, Mexiana, and Monte Alegre; idem, l.c., 66, pp. 10, 523, 1908—Rio Purús (Monte Verde, Bom Lugar) and Rio Tocantins (Arumatheua); Berlepsch, Nov. Zool., 15, p. 117, 1908—Cayenne; Hellmayr, l.c., 17, p. 278, 1910—Marmellos, Rio Madeira; Penard, Vog. Guyana, 2, p. 455, 1910—Surinam (nest and eggs); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 84, 1910—Bahia (Carnahyba and Solidade, near Joazeiro; Lagõa Boqueirão, Rio Grande; Porto da Pedra, Rio Preto) and Piauhy (Burití, Bandeira, Castellano); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1084, 1912—part, Venezuela and Brazil (excl. Araguaya, Matto Grosso, and São Paulo); Snethlage, Journ. Orn., 61, p. 520, 1913 (ecology); idem, Bol. Mus. Goeldi, 8, p. 456, 1914—Rio Tocantins (Arumatheua), Rio Purús (Bom Lugar, Monte Alegre), Marajó (Rio Arary, São Natal, Livramento), Mexiana, Arumanduba, Monte Alegre, Ereré, and Maranhão; Chubb, Bds. Brit. Guiana, 2, p. 540, 1921—upper Takutu Mountains, Ituribisci River, and Abary River; Snethlage, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 41, 1926—Ceará.

*Nemosia pileata pileata* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 87, 101, 119, 127, 1912—Cajútuba (near Pará), Mexiana, and Marajó (Livramento); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 88, 1918—vicinity of Paramaribo, Surinam; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 286, 1929—Maranhão (Manguença Island; Codó, Cocos; Miritiba), Piauhy (Ibiapaba), and Ceará (Juá, near Iguatú).

*Nemosia pileata coerulea* Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—Bahia (crit.).

*Range.*—French, Dutch, and British Guiana; Venezuela (Caracas region and Carabobo), and northern Brazil, south to Bahia and west to the Rio Madeira and Rio Purús.<sup>1</sup>

22: Dutch Guiana (near Paramaribo, 2); Brazil (Manguença Island, Maranhão, 2; Codó, Cocos, Maranhão, 6; Ibiapaba, Piauhy,

<sup>1</sup> Birds from south of the Amazon, as a rule, have the pale loreal spot (white in the male, buffy in the female) more prominent and the greater upper wing coverts exteriorly more distinctly edged with white. There are, however, too many exceptions to this rule to warrant the recognition of a separate race (*N. p. coerulea*). Specimens from Marmellos, Rio Madeira, while slightly brighter above, do not seem to be properly separable from a Guianan series.

*Additional material examined.*—French Guiana: Cayenne, 5.—Dutch Guiana: Paramaribo, 2.—Venezuela: Caracas, 1.—Brazil: Mexiana Island, 1; Marajó Island (Livramento, São Natal), 2; Monte Alegre, 1; Forte do Rio Branco, 2; Marmellos, Rio Madeira, 6; Miritiba, Maranhão, 1; Burití, Piauhy, 1; Bandeira, Piauhy, 1; Castellano, Rio Parnahyba, Piauhy, 1; Rio Preto, Bahia, 2; Lagõa Boqueirão, Rio Grande, Bahia, 1; near Joazeiro, Bahia, 4; Bahia, 13.



1; Juá, near Iguatú, Ceará, 5; Santo Amaro, Bahia, 5; Rio do Peixe, near Queimadas, Bahia, 1).

**Nemosia pileata paraguayensis** Chubb.<sup>1</sup> SOUTHERN HOODED Tanager.

*Nemosia pileata paraguayensis* Chubb, Ibis, (9), 4, p. 629, 1910—Sapucay, Paraguay (type in British Museum); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1084, 1141, 1912—Paraguay and (?)Bolivia (San Miguel, San José, Chiquitos); Hellmayr, Nov. Zool., 30, p. 226, 1923—Chiquitos, Bolivia (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 381, 1930—Paraguay (Trinidad) and Matto Grosso (Urucúm, Belvedere de Urucúm) (crit., meas.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 275, 1930—La Creencia, Santa Cruz, Bolivia (crit.).

*Nemosia pileata* (not *Tanagra pileata* Boddaert) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 28, 1837—Chiquitos, Bolivia; d'Orbigny, Voy. Amér. Mérid., Ois., p. 261, 1839—San Miguel and San José, Chiquitos; Burmeister, Syst. Uebers. Th. Bras., 3, p. 158, 1856—southern Brazil; Sclater, Proc. Zool. Soc. Lond., 24, p. 109, 1856—part, Bolivia (Chiquitos) and Paraguay; Pelzeln, Orn. Bras., 3, p. 214, 1870—part, São Paulo (Porto do Rio Paraná), Goyáz (Araguay), and Matto Grosso (Cuyabá); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 425—Minas Geraes (Paracatú, Mocambo); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—San Miguel and San José, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 223, 1886—part, Paraguay, Bolivia, and southern Brazil (spec. m, Araguay); Berlepsch, Journ. Orn., 35, p. 7, 1887—Lambaré, Paraguay; Allen, Bull. Amer. Mus. N. H., 3, p. 361, 1891—Chapada and Corumbá, Matto Grosso; Ihering, Cat. Faun. Braz., 1, p. 364, 1907—part, São Paulo (Itapura) and (?)Espírito Santo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1084, 1912—part, Matto Grosso and São Paulo, Brazil; Bertoni, Faun. Parag., p. 62, 1914—Paraguay (Chaco and Asunción).

*Nemosia paraguayensis* Bertoni, Anal. Soc. Cient. Arg., 75, p. 98, 1913—Argentine Chaco; Dabbene, Bol. Soc. Physis, 1, p. 364, 1914—Argentine Chaco (ex Bertoni).

*Range*.—Southern Brazil, in states of Matto Grosso, Goyáz, Minas Geraes, São Paulo, and (?)Espírito Santo; Paraguay; eastern Bolivia (Todos Santos; La Creencia, Santa Cruz; Chiquitos), and adjoining parts of the Argentine Chaco (Embarcación, Salta).

<sup>1</sup>*Nemosia pileata paraguayensis* Chubb: Similar to *N. p. pileata*, but larger. Wing, 70–75, rarely 68–69; tail, 47–52, rarely 45–46.

Birds from eastern Bolivia and southern São Paulo agree with Paraguayan topotypes. While in most cases recognizable by larger size, there occur in the range of this form occasionally individuals that cannot be distinguished from the typical race.

*Material examined*.—Eastern Bolivia: Todos Santos, Cochabamba, 3; La Creencia, Santa Cruz, 2; Chiquitos, 2.—Argentina: Embarcación, Salta, 1.—Paraguay: Sapucay, 2; Bernalcué, 1; Trinidad, 1.—Brazil: Pirapora, Rio São Francisco, Minas Geraes, 1 (adult male; wing, 74); Araguay, Goyáz, 3; Itapura, São Paulo, 1 (adult female; wing, 72); Cuyabá, Matto Grosso, 5; Chapada, Matto Grosso, 4; Urucúm, Matto Grosso, 7.

**Nemosia pileata nana** Berlepsch.<sup>1</sup> SMALL HOODED TANAGER.

*Nemosia pileata nana* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1084, 1141, Feb., 1912—Rio Samiria, northeastern Peru (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Nemosia pileata* (not *Tanagra pileata* Boddaert) Sclater, Proc. Zool. Soc. Lond., 24, p. 109, 1856—part, Nauta, Peru; Sclater and Salvin, l.c., 1866, p. 180—Sarayacu, Rio Ucayali, Peru; idem, l.c., 1867, p. 977—Pebas, Peru; idem, l.c., 1873, p. 263—Pebas, Nauta, and Sarayacu, Peru; Taczanowski, Orn. Pér., 2, p. 513, 1884—Peru (Sarayacu, Pebas).

*Range*.—Northeastern Peru (Rio Samiria, Nauta, Pebas; Sarayacu, Rio Ucayali).

**\*Nemosia pileata hypoleuca** Todd.<sup>2</sup> WHITE-BELLIED HOODED TANAGER.

*Nemosia pileata hypoleuca* Todd, Proc. Biol. Soc. Wash., 29, p. 95, June, 1916—Tucurinca, Santa Marta, Colombia (type in Carnegie Museum, Pittsburgh); Todd and Carriker, Ann. Carnegie Mus., 14, p. 487, 1922—Fundación and Tucurinca, Santa Marta (crit., habits).

*Nemosia pileata* (not *Tanagra pileata* Boddaert) Salvin and Godman, Ibis, 1880, p. 121—Valencia, Santa Marta, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 223, 1886—part, spec. a, Valencia, Colombia; Allen, Bull. Amer. Mus. N. H., 13, p. 167, 1900—Valencia (ex Salvin and Godman); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1084, 1912—part, Colombia (Valencia, Santa Marta).

*Range*.—Northern Colombia, from Cartagena east to the Santa Marta region (Aracataca; Fundación; Tucurinca; Valencia de Jesus).  
2: Colombia (Lorica, Bolivar, 2).

**Nemosia rourei** Cabanis.<sup>3</sup> ROURE'S TANAGER.

*Nemosia rourei* Cabanis, Journ. Orn., 18, p. 459, 1870—Muriahié, north bank of Rio Parahyba do Sul, Rio de Janeiro, Brazil (type in Berlin Museum)

<sup>1</sup>*Nemosia pileata nana* Berlepsch: Differs from *N. p. pileata* by decidedly darker, more purplish blue upper parts, darker bluish gray sides, and markedly smaller bill. The last-named character and the darker upper surface are also noticeable in the female sex. Wing, 65–66, (female) 63; tail, 43–44; bill, 11½.

*Material examined*.—Peru: Rio Samiria, 1 (the type); Nauta, 1; Pebas, 1.

<sup>2</sup>*Nemosia pileata hypoleuca* Todd: Nearest to *N. p. pileata* and about the same size, but under parts pure white with mere traces of, if any, grayish tinge on the flanks; the buffy color on throat and breast in the females much paler. Wing, 66–70; tail, 45–49; bill, 11½–12.

*Additional material examined*.—Colombia: Cartagena, 4; Aracataca, 1; Tucurinca, 2.

<sup>3</sup>*Nemosia rourei* Cabanis, a very distinct species, is immediately recognizable by large size, bright red throat and foreneck, pale cinerous upper parts, absence of the white loreal spot and bluish edges to the wings, restriction of black on the crown to the forehead, etc.

The type of this remarkable bird is still unique in the Berlin Museum.

examined); idem, l.c., 20, pl. 1, fig. 1, 1872; Ihering, Cat. Faun. Braz., 1, p. 365, 1907—Rio Parahyba do Sul; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1084, 1912—Muriahíé.

*Nemosia rourii* Sclater, Cat. Bds. Brit. Mus., 11, p. 224, 1886—Brazil.

*Range*.—Southeastern Brazil, in State of Rio de Janeiro (Muriahíé, north bank of Rio Parahyba do Sul).

### Genus HEMITHRAUPIS Cabanis

*Hemithraupis* Cabanis, Mus. Hein., 1, p. 21, Oct., 1851—type, by orig. desig., *Hylophilus ruficeps* Wied.

#### \**Hemithraupis ruficapilla*<sup>1</sup> *ruficapilla* (Vieillot). RUFIOUS-HEADED TANAGER.

*Nemosia ruficapilla* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 22, p. 493, 1818—"apporté du Brésil par M. de Lalande fils"—vicinity of Rio de Janeiro (type in Paris Museum examined); Sclater, Proc. Zool. Soc. Lond., 24, p. 111, 1856—part, Rio de Janeiro (descr.); idem, Cat. Coll. Amer. Bds., p. 87, 1862—Rio de Janeiro; Pelzeln, Orn. Bras., 3, p. 215, 1870—Rio de Janeiro, Sapitiba, and São Paulo (Ypanema); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 424—Rio de Janeiro, São Paulo (common), and Minas Geraes (Lagõa Santa; one male); Pelzeln, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio; Sclater, Cat. Bds. Brit. Mus., 11, p. 225, 1886—southeastern Brazil (Nova Friburgo, São Paulo); Ihering, Rev. Mus. Paul., 3, p. 155, 1899—São Paulo (São Paulo and Iguapé); idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 365, 1907—São Paulo (Iguapé, Franca, Ubatuba) and Santa Catharina (Colonia Hansa) (range, excl. Bahia).

*Hemithraupis ruficapilla* Cabanis, Journ. Orn., 22, p. 82, 1874—Cantagallo, Rio de Janeiro; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1081, 1912—part, Espirito Santo (Victoria) to Santa Catharina.

*Hemithraupis ruficapilla ruficapilla* Hellmayr, Verh. Orn. Ges. Bay., 12, pp. 131, 132, 1915—Victoria, Espirito Santo (char., meas., range).

*Hylophilus ruficeps* Wied, Beitr. Naturg. Bras., 3, (2), p. 725, 1831—part, Cabo Frio, Rio de Janeiro.

<sup>1</sup>*Hemithraupis ruficapilla* closely resembles *H. guira*, the females of the two species being practically indistinguishable, and their ranges, in general, supplement each other, since *H. ruficapilla* is chiefly found in the coast districts, while *H. guira* seems to replace it in the interior of Brazil. There are, however, several records which do not conform to the theory of their being conspecific. *H. ruficapilla* is listed by Ihering from Franca (in the northeastern corner of São Paulo) and by Reinhardt from Lagõa Santa, Minas Geraes, that is, from the distributional area of *H. guira*, whereas among the localities of the latter in "As Aves do Brazil" Itararé figures, where we should have expected the rufous-headed bird. Still, certain individuals that we have seen are so decidedly intermediate (they will be discussed under *H. g. guira*) that further field-work in southern Brazil appears to be imperative to determine the nature of their relationship.

*Range*.—Southeastern Brazil, from Espirito Santo and southern Minas Geraes (Lagõa Santa) to Santa Catharina (Colonia Hansa, Joinville).<sup>1</sup>

2: Brazil (Joinville, Santa Catharina, 2).

**Hemithraupis ruficapilla ruficeps** (Wied).<sup>2</sup> LESSER RUFIOUS-HEADED TANAGER.

*Hylophilus ruficeps* Wied, Beitr. Naturg. Bras., 3, (2), p. 725, 1831—part, "im Sertong der Provinz Bahia" (type, from Bahia, in coll. of Prince Wied, now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 221, 1889).

*Nemosia ruficapilla* (not of Vieillot) Sclater, Proc. Zool. Soc. Lond., 24, p. 111, 1856—part, Bahia; Burmeister, Syst. Uebers. Th. Bras., 3, p. 161, 1856—Bahia; Ihering, Cat. Faun. Braz., 1, p. 365, 1907—part, Bahia.

*Hemithraupis ruficapilla* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1081, 1912—part, Bahia.

*Hemithraupis ruficapilla ruficeps* Hellmayr, Verh. Orn. Ges. Bay., 12, pp. 131, 132, 1915—Bahia (diag., meas.).

*Range*.—Eastern Brazil, in State of Bahia (exact limits unknown).

\***Hemithraupis guira fosteri** (Sharpe).<sup>3</sup> FOSTER'S TANAGER.

*Nemosia fosteri* Sharpe, Bull. Brit. Orn. Cl., 15, p. 96, June, 1905—Sapucay, Paraguay (type in British Museum examined); Chubb, Ibis, 1910, p. 630—Sapucay (crit., habits).

*Nemosia guira* (not *Motacilla guira* Linnaeus) Oberholser, Proc. U. S. Nat. Mus., 25, p. 143, 1902—Sapucay, Paraguay.

*Hemithraupis guira* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—part, Paraguay (Sapucay); Bertoni, Faun. Parag., p. 62, 1914—

<sup>1</sup> *Additional material examined*.—Espirito Santo: Braço do Sul, Victoria, 2.—Rio de Janeiro: Rio de Janeiro, 11; Sapitiba, 2.—São Paulo: São Sebastião, 3; Ypanema, 3.—Paraná: Roça Nova, Serra do Mar, 1.—Santa Catharina: Joinville, 1.

<sup>2</sup> *Hemithraupis ruficapilla ruficeps* (Wied): Differs from the nominate race by decidedly smaller size and paler coloration; rufous of head lighter, orange of rump paler, and posterior under parts paler yellowish; female also paler beneath. Wing, 60–63, rarely 64, (female) 59; tail, 48–51, rarely 53; bill, 10–11.

Twelve specimens of the well-known Bahia "make" examined.

<sup>3</sup> *Hemithraupis guira fosteri* (Sharpe): Very close to *H. g. guira*, but on average larger with stronger bill; adult males with superciliaries and yellow patch on sides of neck more extensive, the former often confluent so as to form a continuous band across the forehead. Wing, 67–72, (female) 65–67; tail, 56–60; bill, 11½–12½.

This is not a strongly marked race. Certain individuals with the least amount of yellow on the head do not differ at all from the Brazilian average, and while size holds in most cases, it cannot be denied that occasional specimens from Brazil, notably one from Agua Suja, Minas Geraes, attain even larger measurements (wing, 73; tail, 61). On the other hand, the yellow color on the head, in Paraguayan males, sometimes reaches an unusual development, covering the whole front part of the crown up to the eyes. Birds from Misiones are identical.

*Additional material examined*.—Paraguay: Sapucay, 12.—Misiones: Santa Ana, 1.



Alto Paraná, Paraguay; idem, El Hornero, 1, p. 190, 1918—Puerto Bertoni, Paraguay (crit., nest and eggs).

*Hemithraupis fosteri* Dabbene, Bol. Soc. Physic., 1, p. 364, 1914—Santa Ana, Misiones (crit.; spec. examined).

*Hemithraupis guira forsteri* (lapsus) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—Paraguay (Sapucay).

*Hemithraupis guira fosteri* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 102, 1912—Paraguay (crit.); Ménégau, Rev. Franç. d'Orn., 11, p. 7, 1919—Villa Lutetia, near San Ignacio, Misiones (crit.).

*Range.*—Paraguay, east of the Rio Paraguay, and the Argentine territory of Misiones.

3: Paraguay (Villa Rica, 1); Misiones (Eldorado, 1; Puerto Segundo, 1).

\**Hemithraupis guira guira* (Linnaeus). GUIRA TANAGER.

*Motacilla guira* Linnaeus, Syst. Nat., 12th ed., 1, p. 335, 1766—based on "Guiraguacu-beraba" Marcgrave, Hist. Nat. Bras., p. 212; northeastern Brazil=Pernambuco (auct. Berlepsch, 1912).

*Hylophilus guira* Wied, Beitr. Naturg. Bras., 3, (2), p. 729, 1831—southeastern Brazil.

*Nemosia nigricollis* (not *Tanagra nigricollis* Gmelin) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 27, 1837—Guarayos, Bolivia (spec. examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 260, 1839—Bolivia (Rio Tanampaya, Yungas; San Xavier, Chiquitos; Guarayos; Yuracares).

*Nemosia guira* Selater, Proc. Zool. Soc. Lond., 24, p. 109, 1856—part, southeastern Brazil and Bolivia (monog.); Burmeister, Syst. Uebers. Th. Bras., 3, p. 161, 1856—Brazil (range in part); Selater, Cat. Coll. Amer. Bds., p. 87, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 215, 1870—part, São Paulo (Porto do Rio Paraná), Goyáz, and Matto Grosso (Engenho do Gama); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 425—Porto do Rio Paraná (ex Pelzeln); Selater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—Caguarani, Bolivia; Selater, Cat. Bds. Brit. Mus., 11, p. 224, 1886—part, spec. p-v, Bolivia ("Kawarani") and Brazil (Bahia and "Pelotas, Rio Grande do Sul"); Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Mapiri, Bolivia; idem, l.c., 3, p. 361, 1891—Chapada, Matto Grosso; Lillo, Rev. Letr. Cienc. Soc., 3, No. 13, p. 41, 1905—Tucumán; Ihering, Cat. Faun. Braz., 1, p. 365, 1907—part, São Paulo (Avanhandava, Itararé, Rio Feio) and Piahy; Sneath, Journ. Orn., 55, p. 295, 1907—Pará and Rio Mojú, Brazil; idem, l.c., 56, p. 523, 1908—Arumatheua, Rio Tocantins; Lillo, Apunt. Hist. Nat., 1, p. 44, 1909—Ledesma, Jujuy; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 84, 1910—Bahia (Fazenda de Santo Antonio, Rio Preto; near Santa Rita) and Piahy (Burití, Castellano, Therezina, Queimadas).

*Nemosia guira guira* Hellmayr, Nov. Zool., 15, p. 30, 1908—Goyáz.

*Hemithraupis guira* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 377, 1910—Tucumán and Jujuy (Ledesma); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, pp. 1083, 1141, 1912—part, Brazil and Bolivia (Kaguarani, Chiquitos, San Mateo, Quebrada Onda); Dabbene, Bol. Soc. Physis, 1, p. 364, 1914—Tucumán and Jujuy (Ledesma); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 184, 1925—Bahia and Piauhy (habits).

*Hemithraupis guira guira* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 87, 1912—Rio Mojú, Pará; idem, l.c., p. 101 (in text), 1912—part, Brazil, south of the Amazon, and Bolivia (crit.); Beebe, Zoologica (N.Y.), 2, p. 101, 1916—Utinga, Pará; Hellmayr, Nov. Zool., 30, p. 225, 1923—Chiquitos, Bolivia; Wetmore, Bull. U. S. Nat. Mus., 133, p. 392, 1926—west of Puerto Pinasco, western Paraguay (crit.); Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 193, 1926—Paraná (Cará Pintada, Serra da Esperança, Therezina, Candido de Abreu, Porto Mendes); Stone, Proc. Acad. Nat. Sci. Phila., 80, p. 175, 1928—Rio Capim and Pará; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 286, 1929—Maranhão (Tury-assú; Codó, Cocos), Piauhy (Ibiapaba, Rio Julgua, above Castellano) and Goyáz (Philadelphia); Naumburg, Bull. Amer. Mus. N. H., 60, p. 384, 1930—Urucúm, Matto Grosso (crit., meas.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 274, 1930—Caraparicito, Santa Cruz, Bolivia (crit.).

*Hemithraupis guira nigrigula* (not *Tanagra nigrigula* Boddaert) Sneath, Bol. Mus. Goeldi, 8, p. 456, 1914—part, Pará, Rio Mojú, and Rio Tocantins (Cametá, Baião, Ilha Pirunúm, Arumatheua); idem, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 41, 60, 1926—Ceará and Tury-assú, Maranhão.

*Range*.—Brazil, south of the Amazon, from Pará (west to the Tocantins) southward to Minas Geraes, northern São Paulo, Paraná,<sup>1</sup> and Matto Grosso; eastern Bolivia; Paraguay west of the Rio Paraguay; and extreme northern Argentina (provinces of Jujuy and Tucumán).<sup>2</sup>

<sup>1</sup> The locality "Pelotas, Rio Grande do Sul," is altogether untrustworthy.

<sup>2</sup> Specimens vary somewhat in size as well as in the tone of the orange pectoral area. According to the available material, this variation seems individual rather than local though there is a certain tendency to larger dimensions among birds from the southern parts of the range. Some males from Minas Geraes, Goyáz, and Matto Grosso are, in fact, fully as large as the Paraguayan form (*fosteri*), which they also approach by the extent of the yellow on the forehead. Bolivian specimens do not appear to be separable, though two or three males have the chest of a darker orange tint. Sztolcman records the present form from the interior of Paraná, but it is not impossible that these birds may be nearer to *H. g. fosteri*. Dabbene determines the inhabitants of northwestern Argentina as *guira*, to which Wetmore also refers a single male from west of Puerto Pinasco, western Paraguay.

Two males from the interior of São Paulo that we have seen strongly suggest intergradation or hybridization with *H. ruficapilla*. The one collected by E. Garbe at São Jeronimo, Avanhanda, Museu Paulista, No. 4353, resembles *H. g. guira* except in having the throat and sides of the head russet as in *H. ruficapilla*. The other bird, American Museum of Natural History, Mus. Paul., No. 5172, secured by F. Günther at Coredeiras, northwestern São Paulo, has the upper part of the head not citrine like the back, but of very nearly the same deep brown as

9: Bolivia (Buenavista, Santa Cruz, 1); Brazil (Chapada, Matto Grosso, 2; Codó, Cocos, Maranhão, 4; Ibiapaba, Piauí, 1; Philadelphia, Goyás, 1).

\**Hemithraupis guira nigrigula* (Boddaert).<sup>1</sup> GUIANAN GUIRA  
TANAGER.

*Tanagra nigrigula* Boddaert, Tabl. Pl. Enl., p. 45, 1783—based on “Tangara olive à gorge noire; de Cayenne” Daubenton, Pl. Enl., pl. 720, fig. 1; Cayenne.

*Tanagra nigricollis* Gmelin, Syst. Nat., 1, (2), p. 894, 1789—based on “Tangara à gorge noire” Buffon and Daubenton, Pl. Enl., pl. 720, fig. 1; “Guyane”=Cayenne (coll. [Sonnini] de Manoncourt).

*Nemosia nigrigularis* Sclater, Cat. Coll. Amer. Bds., p. 87, 1862—new name for *Tanagra nigrigula* Boddaert and *Tanagra nigricollis* Gmelin; Cayenne.

*Nemosia guira* (not *Motacilla guira* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 24, p. 109, 1856—part, Cayenne; Pelzeln, Orn. Bras., 3, p. 215, 1870—part, “Rio Negro”=Manáos (spec. in Munich Museum examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 224, 1886—part, spec. b, c, n, Cayenne and Venezuela (San Esteban); Allen, Bull. Amer. Mus. N. H., 4, p. 52,

the throat, and lacks the bright yellow superciliary streak, there being in that region merely small reddish brown tips to the feathers. The Coredeiras specimen corresponds in general with the description of *Nemosia fuscicapilla* Dubois (Mém. Soc. Zool. France, 7, p. 403, 1894), based on a single male from “Brésil” in the Brussels Museum, but the latter appears to differ by paler brown head (“d’un brun assez clair”) and by having less yellow on the sides of the hind crown. While I cannot offer any plausible explanation for the plumages described in the preceding lines, I feel pretty certain that they do not represent distinct species. They are either individual variants of *H. g. guira*, or may be the result of hybridization between the yellow-browed species and *H. ruficapilla*.

*Additional material examined*.—Piauí: Therezina, 1; Buritã, near Parnaçuá, 2; Rio Julgã, 1; Queimadas, 1; above Castellano, Rio Parnaçuá, 1.—Bahia: Fazenda de Santo Antonio, 2; near Santa Rita, Rio Preto, 2; “Bahia,” 4.—Goyás: Goyás, 4.—Minas Geraes: Agua Suja, near Bagagem, 2.—São Paulo: Rio Paraná, 3; Fazenda Cayoá, Salto Grande do Rio Paranapanema, 2; São Jeronimo, Avandava, 2; Coredeiras, 1.—Matto Grosso: Chapada, 1; Urucum, 5.—Bolivia: San Mateo, 1; Todos Santos, 7; Chiquitos, 1.

<sup>1</sup>*Hemithraupis guira nigrigula* (Boddaert): Very close to *H. g. guira*, but yellow patch on sides of neck more extensive and often extending across the fore-neck, so as to separate the dark brown throat from the raw sienna chest. Wing (males), 62–67; tail, 49–54; bill, 10½–12.

The characters of this form are rather unstable, though the greater extent of yellow on the sides of the neck generally holds good. As to the yellow jugular band, it is well-marked in many skins from French and Dutch Guiana, but nearly obsolete in others from the same regions. Males from the north coast of Venezuela are of the latter type and they also agree in size with the Guianan average, although one from Carabobo (wing, 71; tail, 58) is just as large as *H. g. fosteri*. The few specimens examined from Manáos and Mexiana Island, while somewhat intermediate to *H. g. guira*, seem more properly referable to the northern race. More adequate material should, however, be studied.

*Material examined*.—French Guiana: Cayenne, 4; Saint Laurent du Maroni, 1.—Dutch Guiana: near Paramaribo, 5.—Brazil: Fazenda Nazareth, Mexiana, 3; Manáos, 1.—Venezuela: Loma Redonda, Caracas, 2; Cumbre Chiquita, Carabobo, 7; San Esteban, 1; Las Quiguas, 4.

1892—El Pilar, Sucre, Venezuela; Ihering, Cat. Faun. Braz., 1, p. 365, 1907—part, Surinam; Berlepsch, Nov. Zool., 15, p. 117, 1908—Cayenne; Penard, Vog. Guyana, 2, p. 456, 1910—Surinam.

*Hemithraupis guira guira* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 64, 1912—Cumbre Chiquita and Las Quiguas, Carabobo (crit.); Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, pp. 101, 119, 1912—part, Mexiana (Faz. Nazareth), Manáos, and Venezuela (Cumbre de Valencia).

*Hemithraupis guira nigrigula* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—part, Cayenne; Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 102, 1912—Cayenne and Surinam (crit.); Sneath, Bol. Mus. Goeldi, 8, p. 456, 1914—part, Arumanduba, Rio Maecurú (Cachoeira Muira), and Rio Jamundá (Faro); Bangs and Penard, Bull. Mus. Comp. Zool., 62, p. 89, 1918—vicinity of Paramaribo, Surinam; Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 191, 1924—Loma Redonda, Caracas region, Venezuela.

*Hemithraupis guira guirina* (not *Nemosia guirina* Sclater) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—part, Venezuela (Puerto Cabello).

*Range*.—Northeastern Brazil, north of the lower Amazon, west to Manáos; French and Dutch Guiana; north coast of Venezuela (from the vicinity of Cumaná west to Tachira).

3: Venezuela (Caracas, 2; Colón, Tachira, 1).

### *Hemithraupis guira roraimae* (Hellmayr).<sup>1</sup> RORAIMA GUIRA TANAGER.

*Nemosia guira roraimae* Hellmayr, Bull. Brit. Orn. Cl., 25, p. 88, 1910—Roraima, British Guiana (type in coll. of H. von Berlepsch, now in Frankfurt Museum).

*Hemithraupis guira roraimae* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 103, 1912—Roraima and Merumé Mountains (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—Roraima.

*Hemithraupis roraimae* Chubb, Bds. Brit. Guiana, 2, p. 542, 1921—Roraima and "Abary River."

*Nemosia guira* (not *Motacilla guira* Linnaeus) Salvin, Ibis, 1885, p. 212—Merumé Mountains and Roraima; Sclater, Cat. Bds. Brit. Mus., 11, p. 224, 1886—part, spec. d-h, Roraima.

*Range*.—Highlands of British Guiana (Roraima and Merumé Mountains).

<sup>1</sup>*Hemithraupis guira roraimae* (Hellmayr): Similar to *H. g. nigrigula* in amount of yellow on sides of neck and in having a more or less distinct yellow jugular band below the dark brown gular area, but larger with heavier bill; female as large as *H. g. fosteri*, but brighter yellowish beneath and darker olive above. Wing, 70-74, (female) 67-68; tail, 56-60, (female) 52-56; bill, 11½-13.

*Material examined*.—British Guiana: Roraima (alt. 3,500 ft.), 10.



\**Hemithraupis guira guirina* (Sclater).<sup>1</sup> WESTERN GUIRA  
TANAGER.

*Nemosia guirina* Sclater, Proc. Zool. Soc. Lond., 24, p. 110, 1856—"New Grenada, Bogotá, and eastern Peru" (cotypes in coll. of P. L. Slater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 87, 1862—"Guaunco" [=Huánuco], Peru, and Bogotá; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 547—Chimbo, Ecuador (crit.); Berlepsch, Journ. Orn., 32, p. 292, 1884—Bucaramanga, Colombia (crit.); Taczanowski, Orn. Pér., 2, p. 554, 1884—Ecuador (Chimbo) and Peru (Santa Lucia).

*Nemosia guira* (not *Motacilla guira* Linnaeus) Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—"Bogotá"; Sclater and Salvin, l.c., 1866, p. 180—Sarayacu, Ucayali, Peru (spec. examined); idem, l.c., 1873, p. 263—Sarayacu; Taczanowski, l.c., 1877, p. 744—Santa Lucia, Department of Tumbes, Peru; idem, l.c., 1882, p. 15—Huambo, Peru; idem, Orn. Pér., 2, p. 510, 1884—Huambo and Sarayacu, Peru; Sclater, Cat. Bds. Brit. Mus., 11, p. 224, 1884—part, spec. j-m, o, Colombia ("Bogotá"), Ecuador, and Peru ("Guaunco"); Berlepsch, Journ. Orn., 37, p. 297, 1889—Yurimaguas, Peru (crit.); Goodfellow, Ibis, 1901, p. 469—"Archidona," eastern Ecuador.

<sup>1</sup>*Hemithraupis guira guirina* (Sclater), as understood here, apparently comprises two races, one of which inhabits Colombia west of the eastern Andes (? and western Ecuador), while the other ranges from the eastern base of the east Colombian Andes through eastern Ecuador to northern Peru. Adult males from the western Andes and the Magdalena slope of the eastern Andes of Colombia (Bucaramanga), when compared to *H. g. guira* and *H. g. nigrigula*, are decidedly larger, darker on the chest, and darker (less yellowish) citrine on the upper parts, while the much narrower superciliary streak is strongly tinged with, often wholly, raw sienna instead of bright yellow. Quite similar examples also occur in native "Bogotá" collections. An adult male from Chimbo, Ecuador, agrees in coloration, but is much smaller (wing, 64 against 69-72; tail, 50 against 55-59) and has the brown color of the throat remarkably pale.

Two males from eastern Ecuador (Macas region), three from Peru, and three "Bogotá" skins, on the other hand, have bright yellow superciliaries at best slightly shaded with reddish above the loreal region, and closely resemble *guira*, from which they merely differ by darker upper parts and chest. One from Yurimaguas even recalls *H. g. nigrigula* by having the dark brown throat separated from the orange pectoral area by a narrow yellowish band. Intermediates between the western and eastern types are met with in "Bogotá" collections.

The question now arises as to which one is entitled to the name *N. guirina*. Sclater, when separating it from *guira*, had two "Bogotá" skins and one from "Guaunco" [=Huánuco], Peru, before him, and gives as its principal features the larger size and the greater extent of yellow on the sides of the neck. Dimensions (wing 2.9 in.) point to the large western form, but the statement as regards the color of the superciliaries ("flavis") is more properly applicable to the eastern birds. Although Berlepsch (1912, p. 1083) selected "Bogotá" as type locality, reexamination of Sclater's original examples in the British Museum seems imperative. It is quite possible that *H. g. guirina* may prove to be referable to the form named *huambina* by Sztolcman, in which case the large, ochraceous-browed race of western Colombia would require a new name. The status of the small birds of southwestern Ecuador (Chimbo) also needs investigation with the help of adequate material.

*Material examined*.—Colombia: "Bogotá," 14; Bucaramanga, 1; western Andes (San Isidro, Media Luna), 3.—Ecuador: Chimbo, 1; Macas region, 1; "Archidona," 1.—Peru: Loretoyacu, 1; Sarayacu, 2; Yurimaguas, 1.

*Hemithraupis guira* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1083, 1141, 1912—part, Ecuador (Chimbo) and Peru (Sarayacu, Yurimaguas, "Guanuco," Huambo).

*Hemithraupis guira guira* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 101, 1912—part, Peru; Bangs and Noble, Auk, 35, p. 461, 1918—Perico, Peru; Chapman, Bull. Amer. Mus. N. H., 55, p. 682, 1926—eastern Ecuador (Macas region, Rio Suno, below San José) and Peru (Rio Chinchipe).

*Hemithraupis guira guirina* Hellmayr, Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss., 26, No. 2, p. 103, 1912—Colombia and eastern Ecuador (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—part, Colombia ("Bogotá," Bucaramanga); Chapman, Bull. Amer. Mus. N. H., 36, p. 617, 1917—La Frijolera, Puerto Valdivia, Rio Frio, west of Honda, and La Candela, Colombia; idem, l.c., 55, p. 683, 1926—Chimbo, Ecuador.

*Hemithraupis guira huambina* Sztolcman, Ann. Zool. Mus. Pol. Hist. Nat., 5, p. 233, 1926—Huambo, Peru (type in Warsaw Museum).

*Range*.—Tropical zone of Colombia, Ecuador, and northern Peru.

4: Colombia ("Bogotá," 1; Rio Cauca, 1; Rio Lima, 1); Ecuador (Puente de Chimbo, 1).

### *Hemithraupis flavicollis insignis* (Sclater).<sup>1</sup> YELLOW-BACKED TANAGER.

*Nemosia insignis* Selater, Proc. Zool. Soc. Lond., 24, p. 110, Aug., 1856—South Brazil (the type, examined in coll. of P. L. Sclater, now in British Museum, is a skin of the well-known "Rio" preparation); idem, Cat. Coll. Amer. Bds., p. 87, 1862—southern Brazil; Pelzeln, Orn. Bras., 3, p. 215, 1870—Sapitiba, Rio de Janeiro (spec. in Vienna Museum examined); idem, Nunq. Otios., 2, p. 292, 1874—Nova Friburgo, Rio.

*Nemosia flavicollis* (not of Vieillot, 1818) Vieillot and Oudart, Gal. Ois., 1, (2), p. 99, pl. 75, 1823—"Brésil"; Sclater, Cat. Bds. Brit. Mus., 11, p. 225, 1886—part, subsp. *N. insignis*, southern Brazil; Ihering, Rev. Mus. Paul., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 365, 1907—part, Rio de Janeiro and Espirito Santo.

*Hemithraupis flavicollis* Cabanis, Journ. Orn., 22, p. 82, 1874—Cantagallo.

*Hylophilus melanozanthus* (not *Sylvia melanozantha* Lichtenstein) Wied, Beitr. Naturg. Bras., 3, (2), p. 736, 1831—Cabo Frio, Rio de Janeiro.

<sup>1</sup>*Hemithraupis flavicollis insignis* (Sclater): Exceedingly similar to *H. f. melanozantha*, but perhaps separable in the male sex by paler yellow throat, greater extent of the paler yellow dorsal area, and more restricted blackish barring on the sides of the chest; female not distinguishable. Wing, 74–77, (female) 66–69; tail, 57–60, (female) 55–58; bill, 13–15.

This is rather an ill-defined form, whose characters need corroboration by a more satisfactory series of properly labeled specimens. The type and "Rio" trade-skins agree with birds collected by Natterer at Sapitiba, not far from Rio de Janeiro. The figure in the "Galerie des Oiseaux" appears to have been drawn from a male obtained by Ménétries in that same region, still preserved in the French National Collection at Paris.

*Material examined*.—Rio de Janeiro: Corcovado, 1; Porto Real, 1; Sapitiba, 4; Rio de Janeiro, 1; "Rio" trade-skins, 10.

*Nemosia melanozantha* Boucard and Berlepsch, *The Humming Bird*, 2, p. 43, 1892—Porto Real, Rio (spec. in Paris Museum examined).

*Nemosia flavicollis insignis* Hellmayr, *Nov. Zool.*, 14, p. 352, 1907—Rio de Janeiro (char.).

*Hemithraupis melanozantha insignis* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1082, 1912—Rio de Janeiro (Rio de Janeiro, Cabo Frio, Sapitiba).

*Range*.—Wooded coast region of southeastern Brazil, in states of Espirito Santo and Rio de Janeiro.

**\**Hemithraupis flavicollis melanozantha* (Lichtenstein).<sup>1</sup>**

**BAHIAN YELLOW-RUMPED TANAGER.**

*Sylvia melanozantha* Lichtenstein, *Verz. Doubl. Berliner Mus.*, p. 34, 1823—Bahia (type in Berlin Museum).

*Hemithraupis melanozantha* Cabanis, *Mus. Hein.*, 1, p. 21, 1851—Bahia; Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1082, 1912—Bahia to Pernambuco.

*Nemosia flavicollis* (not of Vieillot) Burmeister, *Syst. Uebers. Th. Bras.*, 3, p. 160, 1856—Bahia (descr.); Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 140, 1856—Brazil; idem, *Cat. Coll. Amer. Bds.*, p. 87, 1862—Brazil; idem, *Cat. Bds. Brit. Mus.*, 11, p. 225, 1886—part, spec. k-o, Pernambuco and Bahia; Ihering, *Cat. Faun. Braz.*, 1, p. 365, 1907—part, Bahia.

*Nemosia flavicollis melanozantha* Hellmayr, *Nov. Zool.*, 14, p. 352, 1907—Bahia (char.).

*Range*.—Wooded coast region of eastern Brazil, in states of Bahia and Pernambuco.

1: Brazil (Bahia, 1).

***Hemithraupis flavicollis centralis* (Hellmayr).<sup>2</sup> RIO MADEIRAN YELLOW-RUMPED TANAGER.**

*Nemosia flavicollis centralis* Hellmayr, *Nov. Zool.*, 14, p. 350, 1907—Humaytá, Rio Madeira, Brazil (descr. of male; type in Tring Collection, now in the

<sup>1</sup> *Hemithraupis flavicollis melanozantha* (Lichtenstein): Nearest to *H. f. flavicollis*, but considerably larger, with heavier longer bill; male with yellow portions of plumage decidedly paler; the yellow dorsal area carried up to a line drawn between the tips of the greater upper wing coverts; the sides of the chest more strongly barred with blackish; female much brighter, nearly strontian yellow, underneath with more greenish sides and flanks. Wing, 71-75, (female) 65-71; tail, 56-60, (female) 53-58; bill, 12½-14.

*Material examined*.—Brazil: Bahia, 21.

<sup>2</sup> *Hemithraupis flavicollis centralis* (Hellmayr): Similar to *H. f. flavicollis*, but larger; head and back of a much deeper, nearly velvety, black than in any of the other races; white alar speculum absent or merely suggested; chest more strongly barred with blackish brown; female more deeply yellow below, more like *H. f. melanozantha*, but not quite so bright. Wing, 72-76, (female) 65-70; tail, 55-58, (female) 52-57; bill, 12-13½.

In the males, the yellow parts of the plumage vary between the intense tone of *melanozantha* and the light hue of *flavicollis*. In size, this form closely approaches

American Museum of Natural History, New York); idem, l.c., p. 352, 1907—western Brazil (Humaytá; Engenho do Gama, Matto Grosso) and Bolivia ("Tilotilo").

*Hemithraupis flavicollis centralis* Hellmayr, Nov. Zool., 17, p. 278, 1910—Calama, Rio Madeira; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1082, 1912—central Brazil and Bolivia ("Tilotilo"); Chapman, Bull. U. S. Nat. Mus., 117, p. 121, 1921—Rio Cosireni, Urubamba, Peru (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 383, 1930—Utiarity, Rio Duvida, and Rio Roosevelt, northern Matto Grosso.

*Nemosia flavicollis* (not of Vieillot) Pelzeln, Orn. Bras., 3, p. 215, 1870—Engenho do Gama, Matto Grosso (spec. in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—Simacu, Bolivia (spec. examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 225, 1886—part, spec. j, Simacu, Bolivia; Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Yungas, Bolivia; Ihering, Cat. Faun. Braz., 1, p. 365, 1907—part, Bolivia and Matto Grosso.

*Range*.—Central Brazil, from the Rio Madeira (Humaytá and Calama) south to northern and western Matto Grosso (Rio Guaporé; Rio Roosevelt; Utiarity); northern Bolivia (Simacu, Yungas of La Paz); and extreme southeastern Peru (Rio Cosireni, Urubamba).

### *Hemithraupis flavicollis flavicollis* (Vieillot). YELLOW-THROATED TANAGER.

*Nemosia flavicollis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 22, p. 491, 1818—"l'Amérique méridionale"—Cayenne (type<sup>1</sup> in Paris Museum examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 225, 1886—subsp. *typica*, part, spec. c-f, Cayenne and Oyapock, French Guiana; Berlepsch, Nov. Zool., 15, p. 117, 1908—Cayenne and Oyapock; Penard, Vog. Guyana, 2, p. 457, 1910—Dutch Guiana.

*Tanagra speculifera* Temminck, Nouv. Rec. Pl. Col., livr. 6, pl. 36, figs. 1, 2, Jan., 1821—"à la Guyane et au Brésil" (location of type not stated).<sup>2</sup>

certain individuals of the Bahian race, but differs by the deeper black pileum and upper back.

*Material examined*.—Brazil: Humaytá, 1; Calama, 1; Engenho do Gama, Rio Guaporé, 3; Rio Roosevelt, 1.—Bolivia: Simacu, 1.

<sup>1</sup>The Paris Museum has a mounted specimen (adult male) labeled: "No. 9251. Remis sur pied en juillet 1859. L'ancien plateau portait pour renseignement par échange de la Lionne, Cayenne," to which in another handwriting is added, "pourrait être un des types de *N. flavicollis* Vieillot." This, the only example which, according to the Museum registers, entered the collection prior to 1818, is obviously the individual described by Vieillot. It corresponds in every detail to his original diagnosis, being, furthermore, identical in dimensions and coloration with two others sent by Fabre from French Guiana.

In comparison to the east Brazilian races (*melanozantha* and *insignis*), adult males from French Guiana have the yellow of the back less extended towards the nape as well as of a deeper tone; the throat likewise darker yellow; the dusky barring on the sides of the chest more restricted; wings and tail shorter; the bill, much smaller. The type of *N. auricollis*, a trade-skin from Cayenne, is similar.

*Material examined*.—French Guiana: Cayenne, 8.

<sup>2</sup>The figures seem to have been taken from Cayenne specimens.



*Nemosia auricollis* Sclater, Proc. Zool. Soc. Lond., 24, p. 111, 1856—part, Cayenne (type in coll. of P. L. Sclater, now in British Museum, examined); idem, Cat. Coll. Amer. Bds., p. 87, 1862—Cayenne.

*Nemosia flavicollis flavicollis* Hellmayr, Nov. Zool., 17, p. 351, 1907—part, Nos. 1-3, French Guiana (Cayenne, Oyapock); Ménégaux, Bull. Mus. Hist. Nat. Paris, 14, p. 9, 1908—French Guiana.

*Hemithraupis flavicollis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1082, 1912—part, Cayenne and Oyapock, French Guiana.

*Range*.—French and Dutch Guiana.

**\*Hemithraupis flavicollis hellmayri** Berlepsch.<sup>1</sup> HELLMAYR'S YELLOW-THROATED TANAGER.

*Hemithraupis flavicollis hellmayri* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1082, 1141, 1912—Merumé Mountains, British Guiana (type in coll. of H. von Berlepsch, now in Frankfurt Museum).

*Hemithraupis hellmayri* Chubb, Bds. Brit. Guiana, 2, p. 542, 1921—Merumé Mountains.

*Range*.—Western British Guiana (Merumé Mountains, Caramang River).

2: British Guiana (Caramang River, 2).

**Hemithraupis flavicollis aurigularis** Cherrie.<sup>2</sup> GOLDEN-THROATED TANAGER.

*Hemithraupis flavicollis aurigularis* Cherrie, Bull. Amer. Mus. Nat. Hist., 35, p. 389, June, 1916—Suapuré, Caura River, Venezuela (type in the Ameri-

<sup>1</sup>*Hemithraupis flavicollis hellmayri* Berlepsch: Similar to *H. f. flavicollis*, but markedly larger. Wing (of males), 74-79 (against 70-72); tail, 55-60 (against 52-54); bill, 13-13½ (against 11-12).

*Material examined*.—British Guiana: Merumé Mountains, 4.

<sup>2</sup>*Hemithraupis flavicollis aurigularis* Cherrie: Nearest to *H. f. flavicollis*, but somewhat smaller, and the breast, in adult males, marked with numerous blackish transverse bands. Wing, 63-68, (female) 58-63; tail, 48-52, (female) 46-50; bill, 11-12.

The small size serves to separate this race from typical *flavicollis*, of French Guiana. Besides, there is, as a rule, a greater amount of blackish barring on the breast in the males, though variation in this respect is unusually large. In certain individuals, both from the Caura and from Marabitanas, the whole breast is closely barred with blackish, the dusky markings being considerably wider than the white interspaces, while others, from the same localities, have these dusky bands much less numerous and chiefly confined to the sides of the chest, though still more prominent than in the nominate race. The tone of the yellow on throat and lower back does not differ from Cayenne examples, but the under tail coverts appear to be of a deeper lemon-chrome. One specimen from Suapuré, Caura, and several from Marabitanas show suggestions of a yellow supraloral streak, and one of the latter exhibits an even closer approach to *H. f. albigularis* by having the middle of the lower throat conspicuously white. Two males from Chamicuros, Peru, agree with the Venezuelan average. Both have the whole throat yellow and no trace of yellow above the lores. Females of *aurigularis* differ from *flavicollis* only by their smaller size.

*Material examined*.—Venezuela, Caura Valley: Suapuré, 6; Nicare, 3.—Brazil: Marabitanas, Rio Negro, 7.—Peru: Chamicuros, 3.

can Museum of Natural History, New York); idem, *Sci. Bull., Mus. Brookl. Inst.*, 2, p. 182, 1916—Suapuré, Caura River.

*Nemosia auricollis* Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 111, 1856—part, Ucayali River, eastern Peru (spec. in British Museum examined); Sclater and Salvin, *Proc. Zool. Soc. Lond.*, 1867, p. 750—Xeberos and Chyavetas, Peru; Pelzeln, *Orn. Bras.*, 3, p. 215, 1870—Marabitanas, Rio Negro, Brazil (spec. examined).

*Nemosia flavicollis* (not of Vieillot) Sclater, *Proc. Zool. Soc. Lond.*, 25, p. 264, 1857—Rio Javarri; Sclater and Salvin, l.c., 1873, p. 263—Xeberos, Chyavetas, Chamicuros, and Rio Javarri, Peru; Taczanowski, *Orn. Pér.*, 2, p. 511, 1884—Peru (Xeberos, Chyavetas, Moyobamba); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 225, 1886—subsp. *typica*, part, spec. i, Ucayali, Peru; Berlepsch and Hartert, *Nov. Zool.*, 9, p. 22, 1902—Suapuré and Nicare, Caura, Venezuela.

*Nemosia flavicollis* (subsp.?) Berlepsch, *Journ. Orn.*, 37, p. 297, 1889—Yurimaguas, Peru (crit.).

*Nemosia flavicollis flavicollis* Hellmayr, *Nov. Zool.*, 17, p. 351, 1907—part, spec. No. 4-21, Venezuela (Caura Valley), northwestern Brazil (Marabitanas, Rio Negro), and eastern Peru (Chamicuros).

*Hemithraupis flavicollis* Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1082, 1912—part, Venezuela (Caura), Brazil (Marabitanas, Rio Javarri), and eastern Peru.

*Range*.—Southern Venezuela (Caura Valley; Rio Cunucunuma, upper Orinoco), northwestern Brazil (Marabitanas, Rio Negro), and eastern Peru south of the Marañón (Rio Javarri, Yurimaguas, Chamicuros, Chyavetas, Xeberos, Moyobamba).

**\**Hemithraupis flavicollis peruana* Bonaparte.<sup>1</sup> YELLOW-SPOTTED TANAGER.**

*Hemithraupis peruana* Bonaparte, *Rev. Mag. Zool.*, (2), 3, p. 173, 1851—Peru (location of type unknown; not in Paris Museum [fide J. Berlioz, in litt.]); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, p. 1082, 1912—Colombia ("Bogotá" and Rio Putumayo), eastern Ecuador (Sarayacu), and north-eastern Peru (Pebas); Chapman, *Bull. Amer. Mus. N. H.*, 36, p. 617, 1917—Florencia, Caquetá, Colombia.

<sup>1</sup> *Hemithraupis flavicollis peruana* Bonaparte: Similar to *H. f. aurigularis* in small size, but adult male immediately distinguished by having a large bright yellow patch on the wings formed by the apical portion of the median upper wing coverts. Wing, 64-68, once 72, (female) 62-65; tail, 48-52, once 55, (female) 48-53; bill, 11-12.

Adult males of this form have the breast heavily banded with blackish, as is frequently the case in *H. f. aurigularis*, and the yellow supraloral streak is generally well-marked, though we have seen a few specimens without any trace of it. The whole throat is bright yellow like the rump. The female closely resembles that of *aurigularis*. Specimens from Colombia and eastern Ecuador agree with Peruvian skins.

*Material examined*.—Colombia: "Bogotá," 15; Cuembí, Rio Putumayo, 1.—Eastern Ecuador: Sarayacu, 2; Chiquinda, 3.—Peru: Pebas, 1; Iquitos, 3.

*Nemosia peruana* Sclater, Proc. Zool. Soc. Lond., 24, p. 111, 1856—eastern Peru (monog.); idem, Cat. Coll. Amer. Bds., p. 87, 1862—"Upper Amazon"; Taczanowski, Orn. Pér., 2, p. 512, 1884—Peru (descr.); Sclater, Cat. Bds. Brit. Mus., 11, p. 227, 1886—Colombia, eastern Ecuador (Sarayacu), and Peru (Pebas).

*Hemithraupis flavicollis peruana* Chapman, Bull. Amer. Mus. Nat. Hist., 55, p. 682, 1926—Rio Napo, below San José, and Rio Suno, eastern Ecuador.

*Range*.—Tropical zone of eastern Colombia (Florencia, Rio Caquetá; Cuembí, Rio Putumayo), eastern Ecuador, and north-eastern Peru (Pebas and Iquitos, north bank of the Marañón).

3: Colombia ("Bogotá," 3).

### **Hemithraupis flavicollis albigularis** (Sclater).<sup>1</sup> WHITE-THROATED TANAGER.

*Nemosia albigularis* Sclater, Proc. Zool. Soc. Lond., 23, p. 109, pl. 99, pub. Aug. 13, 1855—"Bogotá," Colombia (type in coll. of P. L. Sclater, now in British Museum); idem, l.c., p. 155, 1855—"Bogotá"; idem, l.c., 24, p. 111, 1856—"Bogotá" (monog.); idem, Cat. Coll. Amer. Bds., p. 87, 1862—"Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 503—Remedios, Antioquia, Colombia; Berlepsch, Journ. Orn., 32, p. 292, 1884—Bucaramanga, Colombia (descr. of female); Sclater, Cat. Bds. Brit. Mus., 11, p. 227, pl. 12, 1886—Colombia ("Bogotá," Remedios).

*Hemithraupis albigularis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1083, 1912—Colombia ("Bogotá," Bucaramanga, Remedios).

*Range*.—Tropical zone of the Magdalena River and its tributaries (Remedios, Rio Ité), Colombia.

### **Hemithraupis flavicollis ornata** Nelson.<sup>2</sup> ORANGE-THROATED TANAGER.

*Hemithraupis ornatus* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 19, Sept., 1912—Rio Truando, northwestern Colombia (type in U. S. National Museum examined).

*Nemosia auricollis* (not of Sclater) Cassin, Proc. Acad. Nat. Sci. Phila., 1860, p. 143—Rio Truando, Colombia.

<sup>1</sup>*Hemithraupis flavicollis albigularis* (Sclater): Similar in size to *H. f. peruana*, but adult male without yellow on the wing and with the throat white; female with edges to upper wing coverts much duller, and posterior under parts much more whitish and contrasting with yellow of throat and foreneck. Wing, 64–65, (female) 59–61; tail, 49–53, (female) 46–48; bill, 11–12.

*Material examined*.—Colombia: "Bogotá," 14; Bucaramanga, 2.

<sup>2</sup>*Hemithraupis flavicollis ornata* Nelson: Male similar to *H. f. flavicollis* in having the whole throat yellow, no yellow above the lores, and but a limited number of dusky bars on the upper chest, but yellow portions of the plumage much darker, rich cadmium yellow instead of light cadmium. Size smaller, about that of *H. f. auricularis*. Female unknown. Wing (adult male), 66; tail, 48.

The reversion of this form to the characters of the eastern races is a noteworthy fact, and supports the conception that all the yellow-throated *Hemithraupis* are members of a single taxonomic unit.

*Range*.—Tropical zone of northwestern Colombia (Rio Truando) and extreme eastern Panama (Cana, Darien).

### Genus **CHRYSOTHLYPIS** Berlepsch<sup>1</sup>

*Chrysothlypis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1080, Feb., 1912—type, by orig. desig., *Tachyphonus chrysomelas* Sclater and Salvin.

### **Chrysothlypis chrysomelas chrysomelas** (Sclater and Salvin). BLACK AND YELLOW TANAGER.

*Tachyphonus chrysomelas* Sclater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 440, pl. 32 (male and female)—Cordillera del Chucú, Veraguas (types in Salvin-Godman Collection, now in British Museum); Salvin, l.c., 1870, p. 188—Cordillera del Chucú; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 311, pl. 21, fig. 1 (male), 1883—Cordillera del Chucú; Sclater, Cat. Bds. Brit. Mus., 11, p. 210, 1886—Veragua (Cordillera del Chucú); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—Costa Rica.

*Hemithraupis chrysomelas* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 106, 1902—Costa Rica (Talamanca) and Veragua (monog.); Carriker, Ann. Carnegie Mus., 6, p. 852, 1910—Caribbean Costa Rica (Bonilla, Carrillo, Cariblanco de Sarapiquí, and Volcan de Turrialba).

*Chrysothlypis chrysomelas* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1081, 1912—Costa Rica (Talamanca, Carrillo) and Veragua (Cordillera del Chucú).

*Chrysothlypis chrysomelas chrysomelas* Kennard and Peters, Proc. Bost. Soc. Nat. Hist., 38, p. 463, 1928—Boquete Trail, Almirante Bay, Panama; Peters, Bull. Mus. Comp. Zool., 71, p. 342, 1931—Boquete Trail.

*Range*.—Tropical zone of eastern (Caribbean) Costa Rica and western Panama, east to Veraguas.<sup>2</sup>

### **Chrysothlypis chrysomelas ocularis** Nelson.<sup>3</sup> CANA BLACK AND YELLOW TANAGER.

*Chrysothlypis chrysomelas ocularis* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 19, Sept., 1912—Cana, eastern Panama (type in U. S. National Museum).

<sup>1</sup> *Chrysothlypis* Berlepsch is nearly related to *Hemithraupis*, but differs by slenderer, more elongated bill and proportionately much shorter tail.

<sup>2</sup> Birds from Chiriquí (Boquete) agree with others from eastern Costa Rica. Although no topotypical material is available, the males resemble the published figures of the type in having but a narrow rim of black around the eye. Some females are decidedly yellowish on the belly, a character supposed to be diagnostic of the Darien race. Twelve specimens examined.

<sup>3</sup> *Chrysothlypis chrysomelas ocularis* Nelson is described as similar to the nominate race, but differing in the males having a broader black rim around the eyes, which extends forward so as to form a well-marked loreal spot, while the females are said to be brighter as well as more uniform greenish yellow underneath. This form we know only from Nelson's description.



*Range*.—Tropical zone of extreme eastern Panama (Cana, Darien).

Genus *ERYTHROTHLYPIS* Berlepsch<sup>1</sup>

*Erythrothlypis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1081, Feb., 1912—type, by orig. desig., *Nemosia rosenbergi* Rothschild = *Dacnis salmoni* Sclater.

*Erythrothlypis salmoni* (Sclater).<sup>2</sup> SALMON'S TANAGER.

*Dacnis salmoni* Sclater, Cat. Bds. Brit. Mus., 11, p. 27, pl. 2, fig. 2, 1886—Remedios, Antioquia, Colombia (type in coll. of P. L. Sclater, now in British Museum, examined;=female); Hellmayr, Nov. Zool., 13, p. 317, 1906 (crit.).

*Nemosia rosenbergi* Rothschild, Bull. Brit. Orn. Cl., 7, p. vi, Oct., 1897—Cachabí, Province of Esmeraldas, Ecuador (type in Tring Collection, now in the American Museum of Natural History, New York, examined;=adult male); Hartert, Nov. Zool., 5, p. 483, pl. 2, fig. 1 (=male), 1898—Cachabí.

*Hemithraupis salmoni* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1116—Nóvita and near Sipí, Chocó, Colombia (crit., descr. of female and young male).

*Erythrothlypis salmoni* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1081, 1912—western Colombia (Remedios, Antioquia, and Nóvita, Chocó) and northwestern Ecuador (Cachabí); Chapman, Bull. Amer. Mus. N. H., 36, p. 617, 1917—San José (Chocó) and Buenavista (Nariño), Colombia; idem, l.c., 55, p. 682, 1926—Cachabí, Ecuador.

*Range*.—Tropical zone of northwestern Ecuador (Cachabí, Province of Esmeraldas) and western Colombia, east into Antioquia (Remedios, Rio Ité).

<sup>1</sup> Genus *Erythrothlypis* Berlepsch: Exceedingly close to *Chrysothlypis*, but bill much more slender, and feathers of sides and flanks of a fluffy, silky texture, particularly in the male sex.

<sup>2</sup> *Erythrothlypis salmoni* (Sclater).—Adult male: Whole head, including the chest, and back bright scarlet, lower back and rump slightly paler; a broad band along the middle of the breast and abdomen as well as the under tail coverts somewhat lighter, flame-scarlet; sides and flanks silky white; upper wing coverts Brazil red, dusky basally; primary coverts and alula dusky, exteriorly edged with dull reddish; remiges clove brown, exteriorly margined with deep bitter-sweet orange, more rufous on the inner secondaries; upper tail coverts dull Brazil red; tail-feathers dusky with a reddish tinge and margined with rufous along the outer web; axillaries and under wing coverts pure white like the flanks; inner web of remiges conspicuously edged with bitter-sweet pink. Maxilla dark brown, mandible pale brownish. Female: Upper parts dull orange-citrine, hind crown sometimes shaded with grayish; remiges dusky, exteriorly edged with brighter olive-citrine; tail dull medal bronze; lores and auriculars slightly duller than the crown; throat, foreneck, and under tail coverts pale buffy, remainder of under parts buffy white; axillaries and under wing coverts very nearly as white as in the male; inner margin to remiges baryta yellow. Wing, 68–72, (female) 57–58; tail, 50–53, (female) 41–43; bill, 12–13, (female) 11–12.

*Material examined*.—Ecuador: Cachabí, 1.—Colombia: Remedios, 1 (type of *D. salmoni*); Nóvita, Rio Tamaná, 10.

Genus **THLYPOPSIS** Cabanis

*Thlypopsis* Cabanis, Mus. Hein., 1, p. 138, Oct., 1851—type, by subs. desig. (Gray, Cat. Gen. Subgen. Bds., p. 74, 1855), *Nemosia fulvescens* Strickland = *Nemosia sordida* Lafresnaye and d'Orbigny.

\***Thlypopsis sordida sordida** (Lafresnaye and d'Orbigny).  
ORANGE-HEADED TANAGER.

*Nemosia sordida* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 28, 1837—Yuracares, Bolivia (descr. of young; type in Paris Museum examined); d'Orbigny, Voy. Amér. Mérid., Ois., p. 261, pl. 18, fig. 2 (=young), 1839—Yuracares; Sclater, Proc. Zool. Soc. Lond., 24, p. 112, 1856—Bolivia (descr.); idem, Cat. Coll. Amer. Bds., p. 88, 1862—Pernambuco, Brazil; Pelzeln, Orn. Bras., 3, p. 216, 1870—Cuyabá, Matto Grosso (spec. examined;=young); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 423—Lagõa Santa, Minas Geraes (=young); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—Yuracares, Bolivia (ex d'Orbigny).

*Nemosia fulvescens* Strickland, Ann. Mag. Nat. Hist., 13, p. 420, 1844—"Brazil?" (descr. of adult; type in coll. of H. E. Strickland, now in University Museum, Cambridge, England; cf. Salvin, Cat. Strickl. Coll., p. 196, 1882); Pelzeln, Orn. Bras., 3, p. 215, 1870—part, Cidade de Goyáz (Rio Bacaljaú) and Cuyabá, Matto Grosso; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 423—Lagõa Santa and Sete Lagõas, Minas Geraes; Forbes, Ibis, 1881, p. 334—Quipapá and Garanhuns, Pernambuco.

*Thlypopsis fulvescens* Cabanis, Mus. Hein., 1, p. 138, 1851—Brazil; idem, Journ. Orn., 14, p. 232, 1866—southeastern Brazil and Venezuela (crit.; =adult); idem, l.c., 22, p. 84, 1874—Cantagallo, Rio.

*Nemosia fulviceps* (not *Emberiza fulviceps* Lafresnaye and d'Orbigny) Burmeister, Syst. Uebers. Th. Bras., 3, p. 159, 1856—Lagoa Santa, Minas Geraes.

*Thlypopsis sordida* Cabanis, Journ. Orn., 14, p. 232, 1866—Bolivia (crit.;=young); Sclater, Cat. Bds. Brit. Mus., 11, p. 228, 1886—Bolivia and Brazil (Pernambuco, Bahia); Allen, Bull. Amer. Mus. N. H., 3, p. 361, 1891—Chapada, Matto Grosso (plumages); Ihering, Rev. Mus. Paul., 4, p. 153, 1900—Cantagallo, Rio (ex Cabanis); Berlepsch and Hartert, Nov. Zool., 9, p. 23, 1902—Capuchin, El Fraile, and Altagracia, Rio Orinoco, Venezuela; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Tafi Viejo, Tucumán; idem, Rev. Letr. Cienc. Soc., 3, No. 13, p. 42, 1905—Tafi Viejo; Ihering, Cat. Faun. Braz., 1, p. 366, 1907—Bahia and Minas Geraes (Marianna); Hartert and Venturi, Nov. Zool., 16, p. 171, 1909—San Vicente, Chaco, and Tafi Viejo, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 436, 1910—Santa Ana, Misiones; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 84, 1910—Piauhuy (Nova York, Caieté and São Gonçalves, Rio Parnahyba); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1085, 1912—part, Venezuela (Capuchin), Brazil (Bahia, Pernambuco, Goyáz, Minas Geraes, Cuyabá), and Bolivia (Yuracares, San Mateo); Dabbene, Bol. Soc. Physis, 1, p. 364, 1914 (range in Argentina); Bertoni, Faun. Parag., p. 63, 1914—"Paraguay" (ex Azara); Ménégau, Rev. Franç. d'Orn., 5, p. 87, 1917—Poconé, Matto Grosso; (?) Lüderwaldt and Pinto da Fonseca, Rev. Mus. Paul., 13, p. 493,

1923—Illa dos Alcatrazes, São Paulo; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, pp. 41, 60, 1926—Ceará and Maranhão (São Bento).

*Thlypopsis sordida sordida* Hellmayr, Nov. Zool., 13, p. 311, 1906—part, Bolivia (Yuracares, San Mateo), Brazil (excl. Rio Madeira), and Venezuela; Dabbene, Anal. Mus. Nac. Buenos Aires, (3), 11, p. 377, 1910—Tucumán and Chaco (San Vicente, Ocampo); Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 183, 1916—middle Orinoco, Venezuela; Dinelli, El Hornero, 1, p. 62, 1918—Tafi Viejo, Tucumán (habits, nest and eggs); Hellmayr, Nov. Zool., 30, p. 226, 1923—Yuracares, Bolivia (note on type, range); idem, Field Mus. Nat. Hist., Zool. Ser., 12, p. 287, 1929—Juá, near Iguatú, Ceará; Naumburg, Bull. Amer. Mus. N. H., 60, p. 386, 1930—Agua Blanca de Corumbá, Matto Grosso; Laubmann, Wiss. Ergeb. Deuts. Gran Chaco Exp., Vögel, p. 276, 1930—Buena Vista, Santa Cruz, Bolivia.

*Thlypopsis amazonum* Sclater, Cat. Bds. Brit. Mus., 11, p. 229, 1886—part, spec. e, Cuyabá, Matto Grosso.

*Range*.—Brazil, from Maranhão (São Bento), Piauí (Rio Parnahyba), and Ceará south to Rio de Janeiro, Minas Geraes, Goyás, and Matto Grosso; eastern Bolivia and northern parts of Argentina (from Tucumán to the Chaco; Misiones); southern Venezuela (middle Orinoco from Ciudad Bolívar to the falls of Atures).<sup>1</sup>

4: Brazil (Juá, near Iguatú, Ceará, 1; Chapada, Matto Grosso, 1); Argentina (Concepción, Tucumán, 2).

### **Thlypopsis sordida chrysopsis** (Sclater and Salvin).<sup>2</sup> AMAZONIAN ORANGE-HEADED TANAGER.

<sup>1</sup> Birds from various parts of Brazil appear to be inseparable from a typical Bolivian series. I am, however, not quite so certain that those from the Orinoco basin are exactly the same. The few specimens, mostly in rather worn plumage, that we have been able to examine are on average smaller and less whitish in the middle of the abdomen, but their unsatisfactory condition makes them unfit for definite decision. At all events, Venezuelan birds are, however, not referable to *T. s. amazonum*.

I cannot help questioning Lüderwaldt and Fonseca's record from the Illa dos Alcatrazes, off the coast of São Paulo—rather a remarkable occurrence for this species, otherwise only known from the interior districts as far as southern Brazil is concerned.

*Additional material examined*.—Bolivia: San Mateo, north foot of Sierra de Cochabamba, 10; Yuracares, 2; Buena Vista, Santa Cruz, 3.—Argentina: Tafi Viejo, Tucumán, 2; San Vicente, Chaco, 1.—Brazil, Piauí: Bomfim, above Nova York, Rio Parnahyba, 1; Caieté, Rio Parnahyba, 1; São Gonçalinho, Rio Parnahyba, 2; Bahia, 9; Rio Tocantins, 1; Agua Suja, near Bagagem, Minas Geraes, 5; Matto Grosso, Cuyabá, 5; Chapada, 1.—Venezuela, Orinoco River: Ciudad Bolívar, 1; Altigracia, 1; Capuchin, 1.

<sup>2</sup> *Thlypopsis sordida chrysopsis* (Sclater and Salvin): Similar to *T. s. sordida*, but upper parts purer gray, less shaded with olivaceous, and under surface much less buffy, the chest and sides being pale grayish brown with a faint, if any, creamy tinge on the foreneck. Wing, 64–68; tail, 51–58; bill, 11–12.

Birds from Ecuador and Peru agree well together, while two from the Rio Madeira, Brazil, are slightly more buffy on foreneck, flanks and crissum, thus



- Nemosia chrysoptis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1880, p. 155—Sarayacu, eastern Ecuador (type in Salvin-Godman Collection, now in British Museum, examined;=young); Hellmayr, Nov. Zool., 13, p. 310, 1906 (crit.).
- Thlypopsis amazonum* Sclater, Cat. Bds. Brit. Mus., 11, p. 229, 1886—part, lower Ucayali, Pebas, and Nauta, Peru (type, from lower Ucayali, in British Museum examined); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 345—La Merced, Chanchamayo, Peru (spec. examined).
- Nemosia sordida* (not of Lafresnaye and d'Orbigny) Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 180—lower Ucayali, Peru (crit.); Taczanowski, Orn. Pér., 2, p. 508, 1884—Peru (lower Ucayali and Tambillo).
- Nemosia fulvescens* (not of Strickland) Pelzeln, Orn. Bras., 3, p. 215, 1870—part, Rio Madeira=São João do Crato, below the junction of the Rio Mahissy (spec. in Vienna Museum examined); Sclater and Salvin, Proc. Zool. Soc. Lond., 1873, p. 263—Nauta and lower Ucayali, Peru (spec. examined).
- Thlypopsis chrysoptis* Sclater, Cat. Bds. Brit. Mus., 11, p. 229, 1886—Ecuador (Sarayacu) and Peru (Santa Cruz).
- Thlypopsis sordida sordida* (not *Nemosia sordida* Lafresnaye and d'Orbigny) Hellmayr, Nov. Zool., 13, pp. 310, 311, 1906—part, Rio Madeira, Brazil, and Sarayacu, Ecuador.
- Thlypopsis sordida* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1085, 1912—Rio Madeira, Brazil, Sarayacu, "northeastern Peru" [=Ecuador].
- Thlypopsis sordida amazonum* Hellmayr, Nov. Zool., 13, p. 311, 1906—Peru (Pebas, Nauta, Santa Cruz, lower Ucayali, La Merced); idem, l.c., 17, p. 278, 1910—Maroins, Rio Machados, Rio Madeira, Brazil (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1085, 1912—Peru (range); Chapman, Bull. Amer. Mus. N. H., 55, pp. 683, 736, 1926—junction of Curaray and Napo rivers, eastern Ecuador; Naumburg, l.c., 60, p. 387, 1930—Calama, Rio Madeira.

*Range.*—Upper Amazonia, from eastern Ecuador south to eastern Peru (Nauta and Pebas, Rio Marañón; Santa Cruz, lower Huallaga; lower Ucayali; Rio Perené, La Merced, Chanchamayo, Department of Junín), east to the Rio Madeira and its tributary, the Rio Machados, in western Brazil.

pointing to *T. s. sordida*. Recent comparison of the type with more adequate material shows *Nemosia chrysoptis* to have been based on the juvenile plumage of *amazonum* (and not of *sordida*, as I formerly believed), the newly growing feathers on the chest having exactly the same tone as the corresponding parts of adults of that form. Furthermore, specimens lately received (from the junction of the Curaray and Napo) by the American Museum of Natural History are unquestionably the upper Amazonian form.

*Material examined.*—Eastern Ecuador: Sarayacu, 1; mouth of the Curaray, 2.—Peru: Pebas, 1; Nauta, 1; Santa Cruz, 1; lower Ucayali, 2; Rio Perené, Department of Junín, 1; La Merced, Chanchamayo, 4.—Brazil: São João do Crato, Rio Madeira, 1; Calama, Rio Madeira, 1; Maroins, Rio Machados, 1.



**Thlypopsis fulviceps fulviceps** Cabanis.<sup>1</sup> FULVOUS-HEADED TANAGER.

*Thlypopsis fulviceps* Cabanis, Mus. Hein., 1, p. 138, Oct., 1851—Caracas, Venezuela (types in Heine Collection, now in Municipal Museum, Halberstadt); idem, Journ. Orn., 14, p. 233, 1866—Caracas (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 229, 1886—Caracas; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1085, 1912—Caracas.

*Tachyphonus ruficeps* (not of Strickland, 1844) Lafresnaye, Rev. Zool., 11, p. 173, 1848—Caracas, Venezuela (types in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 411, 1930).

*Nemosia ruficeps* Sclater, Proc. Zool. Soc. Lond., 24, p. 112, 1856—Caracas (monog.); idem, Cat. Coll. Amer. Bds., p. 88, 1862—Caracas; Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 167—Caracas; idem, l.c., 1870, p. 780—south of Mérida, Venezuela.

*Thlypopsis fulviceps fulviceps* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 192, 1924—Loma Redonda and Galipán, Cerro del Avila, Caracas, and Los Palmales, Monagas, Venezuela (crit.); Chapman, Amer. Mus. Nov., 191, p. 13, 1926—Neverí and Carápas, northeastern Venezuela.

*Range*.—Tropical and Subtropical zones of northern Venezuela, from the mountains inland of Cumaná west to the Caracas region and south to Mérida.

**Thlypopsis fulviceps intensa** Todd.<sup>2</sup> COLOMBIAN FULVOUS-HEADED TANAGER.

*Thlypopsis fulviceps intensa* Todd, Proc. Biol. Soc. Wash., 30, p. 128, July, 1917—La Palmita, Santander, Colombia (type in Carnegie Museum, Pittsburgh).

*Range*.—Subtropical zone of the western slope of the eastern Andes of Colombia (La Palmita, Santander).

<sup>1</sup>*Thlypopsis fulviceps fulviceps* Cabanis, though allied to *T. sordida*, differs nevertheless very markedly by lesser dimensions, smaller bill, and much darker coloration. Top and sides of the head are deep orange-rufous, the throat somewhat paler rufous (in *sordida* only the pileum and hindneck are ochraceous-orange, the other parts empire yellow); the dorsal surface is much darker and grayer, deep grayish olive rather than grayish olive; the chest and sides pale neutral gray instead of buffy with the middle of the abdomen pure white, etc.

There is apparently no local variation in this bird, a single specimen from the Mérida region being inseparable from others of northeastern Venezuela.

*Material examined*.—Venezuela: Los Palmales, Monagas, 8; Loma Redonda, near Caracas, 12; Galipán, Cerro del Avila, 3; Antimano, near Caracas, 2; Rio Maméra, near Caracas, 1; Alto de Estanques (alt. 3,000 ft.), Mérida, 1.

<sup>2</sup>*Thlypopsis fulviceps intensa* Todd: Similar to *T. f. fulviceps*, but much more deeply colored; head and neck all around chestnut rufous rather than deep orange rufous; dorsal surface more blackish, near deep neutral gray; under tail coverts more shaded with buffy. Size the same.

A well-marked race examined, some years ago, in the Carnegie Museum.

\****Thlypopsis inornata* (Taczanowski).<sup>1</sup> FULVOUS-BELLIED  
TANAGER.**

*Nemosia inornata* Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 228—northern Peru, no locality specified (type, from Tambillo, Department of Cajamarca, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 186, 1927); idem, l.c., 1880, p. 195—Callacate; idem, Orn. Pér., 2, p. 509, 1884—Tambillo and Callacate.

*Thlypopsis inornata* Sclater, Cat. Bds. Brit. Mus., 11, p. 230, pl. 13, fig. 2, 1886—Tambillo and Callacate; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1085, 1912—same localities; Bangs and Noble, Auk, 35, p. 461, 1918—Perico, Tabaconas, and Bellavista, Marañón, Peru; (?)Chapman, Bull. U. S. Nat. Mus., 117, p. 121, 1921—San Miguel Bridge, Urubamba, Peru.

*Range.*—Subtropical zone of northern Peru in the drainage of the upper Marañón, from the Rio Huancabamba (Tabaconas) south to the vicinity of Balsas; (?)also in southeastern Peru (San Miguel Bridge, Urubamba Valley).

6: Peru (Hacienda Limón, ten miles west of Balsas, 5; Rio Utcubamba, 1).

***Thlypopsis ornata*<sup>2</sup> *ornata* (Sclater). RUFIOUS-CHESTED TANAGER.**

*Nemosia ornata* Sclater, Proc. Zool. Soc. Lond., 27, p. 138, 1859—Pallatanga, western Ecuador (types in coll. of P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 88, 1862—Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 290—Cayandede, Pedregal, and Bugnac, Ecuador.

*Thlypopsis ornata* Cabanis, Journ. Orn., 14, p. 233, 1866—Ecuador (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 230, pl. 13, fig. 1, 1886—Ecuador (Pallatanga, Monji); Hartert, Nov. Zool., 5, p. 484, 1898—Ibarra; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Niebli

<sup>1</sup> *Thlypopsis inornata* (Taczanowski), a very peculiar species, is obviously quite distinct from *T. ornata*, a representative of which occurs in the same parts of Peru. The general coloration of the upper parts recalls *T. f. fulviceps*, but the rufous of the pileum passes into warm buff on the frontal edge, lores, and subocular region, while the entire under surface (from chin to crissum) is nearly uniform ochraceous buff or warm buff, slightly paler on upper throat and abdominal line. The larger upper wing coverts are externally edged with pale brownish, which is not the case in *T. fulviceps*, and the bird is altogether larger, with a longer, slenderer bill. The juvenile plumage lacks the rufous on the head, the pileum being buffy olive tinged with yellow on the forehead, and has the back much more strongly washed with olivaceous. Wing, 70-72, (female) 68; tail, 61-64; bill, 11-12.

Our specimens agree with an adult male from Callacate, thus nearly topotypical. It remains to be determined by an adequate series whether birds from the Urubamba region, whence a single example was recorded by Chapman, are really the same as the Marañón form.

<sup>2</sup> *Thlypopsis ornata* is possibly conspecific with *T. sordida*. Determination of their relationship depends on the status of the supposed east Ecuadorian race of the former.

and (?)Pun, Ecuador; Goodfellow, Ibis, 1901, p. 469—Mindó (alt. 7,000 ft.), Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1085, 1912—western Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 683, 1926—part, Huigra and Pagma Forest, Ecuador.

*Range.*—Subtropical and humid Temperate zone of western Ecuador (excepting the extreme south) and (?)northeastern Ecuador (Pun).<sup>1</sup>

**\*Thlypopsis ornata media** Zimmer.<sup>2</sup> INTERMEDIATE RUFUS-CHESTED TANAGER.

*Thlypopsis ornata media* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 452, Dec., 1930—Cullcui, Marañón River, Peru (type in Field Museum).

*Nemosia ornata* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 227—Tambillo; idem, l.c., 1880, p. 195—Cutervo; idem, Orn. Pér., 2, p. 507, 1884—part, Tambillo, Cutervo, and Paucal.

*Thlypopsis ornata* Chapman, Bull. Amer. Mus. N. H., 55, p. 683, 1926—part, Taraguacochoa and Loja, Ecuador.

*Thlypopsis ornata macropteryx* (not of Berlepsch and Stolzmann) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1085, 1142, 1912—part, northern Peru (Tambillo, Cutervo, Paucal, Leimabamba, San Pedro).

*Range.*—Humid Temperate zone of northern Peru, south to the sources of the Rio Marañón, and extreme southern Ecuador (Province of Loja).

1: Peru (Cullcui, Rio Marañón, Dept. Huánuco, 1).

**\*Thlypopsis ornata macropteryx** Berlepsch and Stolzmann.<sup>3</sup> LONG-WINGED RUFUS-CHESTED TANAGER.

*Thlypopsis ornata macropteryx* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 345—Maraynioc, Department of Junín, Peru (type in

<sup>1</sup> All the specimens we have seen are from western Ecuador. They are characterized by small size and rather dull rufous of the head. Their measurements are: wing, 55 (female) to 61 (male); tail, 50–58.

Salvadori and Festa recorded a single specimen in juvenile plumage from Pun, eastern Ecuador. Berlepsch (in MS.), who has examined it, noticed certain peculiarities. Its exact identification should be confirmed by adult birds.

*Material examined.*—Western Ecuador: Bugnac, 1; Cayandede, 3; Huigra, 3; Chunchi, 2.

<sup>2</sup> *Thlypopsis ornata media* Zimmer: Similar in coloration to *T. c. ornata*, but larger. Wing, 63 (female) to 70 (male); tail, 53–58.

*Additional material examined.*—Peru: Leimabamba (alt. 9,000 ft.), 2; San Pedro, 9.—Southern Ecuador: Taraguacochoa, 1; Loja, 1.

<sup>3</sup> *Thlypopsis ornata macropteryx* Berlepsch and Stolzmann: Agreeing in size with *T. o. media*, but top of the head darker (Sanford's brown); throat and breast deeper in tone (between ochraceous-orange and ochraceous-tawny); the middle of the belly more extensively white; bill larger. Wing, 68–72, (female) 65–67; tail, 55–60; bill, 12–13.

*Material examined.*—Peru, Department of Junín: Maraynioc, 5; Chipa, 1.

Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 187, 1927); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1085, 1142, 1912—part, central Peru (Maraynioc, Pariayacu, Auquimarca).

*Nemosia ornata* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 515—part, Auquimarca; idem, Orn. Pér., 2, p. 507, 1884—part, Maraynioc and Auquimarca.

*Range*.—Humid Temperate zone of central Peru, in Department of Junín (Auquimarca, Maraynioc, Pariayacu, Chipa, Rumicruz).

\**Thlypopsis pectoralis* (Taczanowski).<sup>1</sup> BROWN-FLANKED TANAGER.

*Nemosia pectoralis* Taczanowski, Orn. Pér., 2, p. 508, 1884—Acancocha [above Pumamarca, Province of Tarma, Department of Junín], Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 187, 1927).

*Thlypopsis pectoralis* Sclater, Cat. Bds. Brit. Mus., 11, p. 230, 1886—Peru (descr. of type); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1086, 1142, 1912—Acancocha; Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 454, 1930—mountains near Huánuco and Pano, Huánuco, Peru (descr. of young).

*Nemosia ornata* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 515—part, "Arancocha"=Acancocha, Peru.

*Range*.—Humid Temperate zone of central Peru, in departments of Huánuco (Huánuco Mountains; Pano) and Junín (Acancocha). 8: Peru (Huánuco Mountains, 7; Pano, 1).

*Thlypopsis ruficeps* (Lafresnaye and d'Orbigny). RUFIOUS-CAPPED TANAGER.

*Sylvia ruficeps* Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 20, 1837—Ayupaya, Bolivia (type in Paris Museum examined; descr. of male).

*Hylophilus ruficeps* d'Orbigny, Voy. Amér. Mérid., Ois., p. 219, pl. 13, fig. 1, 1838—near Palca, Prov. Ayupaya, Bolivia.

*Nemosia ruficeps* Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—Bolivia (Palca, Province of Ayupaya; Sorata and Tilotilo, Yungas; San Baldomero).

<sup>1</sup> *Thlypopsis pectoralis* (Taczanowski) closely resembles *T. ornata* and differs principally by having the lighter rufous (ochraceous-orange) color below restricted to throat and foreneck, while the sides and flanks are by no means rufescent, but isabella color, often with a touch of buffy olive. Besides, the head is darker (somewhat darker than xanthine orange on the crown, mars yellow on the sides), and the back much more olivaceous, between grayish olive and citrine-drab instead of deep olive-gray to dark olive-gray. Wing, 67, (female) 64; tail, 56-58; bill, 11-12.

One would be tempted to associate this bird specifically with *T. ornata*, were it not for the fact that *T. pectoralis* and *T. o. macropteryx* are both found in the humid Temperate zone of the Junín region.



*Thlypopsis ruficeps* Sclater, Cat. Bds. Brit. Mus., 11, p. 231, 1886—Bolivia (Tilotilo, Sorata) and Tucumán; Sclater and Hudson, Arg. Orn., 2, p. 40, 1888—Tucumán; Lillo, Anal. Mus. Nac. Buenos Aires, 8, p. 176, 1902—Cumbre del Cerro de la Hoyada, Tucumán; idem, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 41, 1905—Cerro de la Hoyada; Berlepsch and Stolzmann, Ornith., 13, pp. 82, 111, 1906—Idma (Santa Ana Valley) and Huaynapata (Marcapata), Peru; Hartert and Venturi, Nov. Zool., 16, p. 172, 1909—Cumbre de la Hoyada, Tucumán; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 378, 1910—Sierra de Tucumán and La Hoyada; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1086, 1912—southern Peru (Santa Ana, Huaynapata, Marcapata), Bolivia (Tilotilo, Sorata, Chaco, San Cristóbal, Copacata, Chicani, Ayupaya), and Tucumán; Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 29, 1920—Chuhuasi, Limbani, and Marcapata, Carabaya; Chapman, Bull. U. S. Nat. Mus., 117, p. 122, 1921—Urubamba Valley, Peru (Idma, San Miguel Bridge, Torontoy, Calca); Hellmayr, Nov. Zool., 28, p. 245, 1921—Ayupaya (note on type).

*Range*.—Subtropical zone of southeastern Peru (Urubamba Valley and Sierra of Carabaya), Bolivia, and northwestern Argentina (Province of Tucumán).<sup>1</sup>

### Genus COMPSOTHRAUPIS Richmond

*Lamprotes* (not of "R. L.," 1817)<sup>2</sup> Swainson, Nat. Hist. Classif. Bds., 2, p. 283, 1837—type, by monotypy, *Tanagra rubrigularis* Spix=*Tanagra loricata* Lichtenstein.

*Compsothraupis* Richmond, Proc. Biol. Soc. Wash., 28, p. 180, 1915—new name for *Lamprotes* Swainson, preoccupied.

### \**Compsothraupis loricata* (Lichtenstein). SCARLET-THROATED TANAGER.

*Tanagra loricata* Lichtenstein, Abhandl. Akad. Wiss. Berlin, Phys. Kl., for 1816–17, p. 159, 1819—based on "Jacapú" Marcgrave, Hist. Nat. Bras., p. 192 (=adult male), northeastern Brazil = Ceará (auct. Hellmayr, 1929); idem, Verz. Doubl. Berliner Mus., p. 31, 1823—part, descr. of male [=female],<sup>3</sup> Brazil.

*Tanagra bonariensis* (not of Gmelin, 1789) Wied, Reise Bras., 2, p. 179, 1821—Rio Ressaque, tributary of the Rio Pardo, northeastern Minas Geraes; idem, Beitr. Naturg. Bras., 3, (1), p. 530, 1830—Ressaque (plumages, habits).

*Tanagra rubricollis* Spix, Av. Spec. Nov. Bras., 2, p. 43, 1825—"in sylvis campestribus Bahia inter et Rio de Janeiro" (descr. of immature male;

<sup>1</sup> There is no local variation observable in this species.

*Material examined*.—Peru: Limbani, Carabaya, 1; Chuhuasi, Carabaya, 2; Marcapata (alt. 6,000 ft.), 15.—Bolivia: Ayupaya, 1 (the type); San Cristóbal, 2; Chicani, 2.—Argentina: Cumbre de la Hoyada, Tucumán, 8.

<sup>2</sup> *Lamprotes* "R. L.," Allgem. Lit. Zeit., 1817, (1), p. 287 (Lepidoptera).

<sup>3</sup> Lichtenstein's alleged female, described as "mare paulo minor, supra cinnamomea, subtus ferruginea," does not belong here at all.

type in Munich Museum examined; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 677, 1906).

*Tanagra rubrigularis* Spix, Av. Spec. Nov. Bras., 2, pl. 56, fig. 1 ("female" =immature male), 1825.

*Tachyphonus loricatus* Burmeister, Syst. Uebers. Th. Bras., 3, p. 167, 1856—northern Minas Geraes, Sertão of Bahia, and "north to the Amazon" (errore).

*Lamprotes loricatus* Sclater, Proc. Zool. Soc. Lond., 24, p. 121, 1856—Bahia (monog.); idem, Cat. Amer. Bds., p. 82, 1862—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., p. 428, 1870—Minas Geraes (not in the southern parts of the state); Pelzeln, Orn. Bras., 3, p. 211 (note 2), 1870—Bahia; Sclater, Cat. Bds. Brit. Mus., 11, p. 231, 1886—Bahia; Ihering, Cat. Faun. Braz., 1, p. 366, 1907—Minas Geraes, Bahia, and Piauh; Hellmayr, Nov. Zool., 15, p. 30, 1908—Rio Araguaya, Goyáz; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 84, 1910—Bahia (near Sambaiba, Rio São Francisco) and Piauh (Parnaguá, Burití, and below União, Rio Parnahyba); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1087, 1912—Minas Geraes to Piauh; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 184, 1925—Bahia and Piauh; Sneath, Bol. Mus. Nac. Rio de Janeiro, 2, No. 6, p. 42, 1926—Ceará.

*Compsothraupis loricata* Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 288, 1929—Maranhão (São Francisco), Ceará (Serra de Baturité; Juá, near Iguatú), and Bahia (Macaco Secco and Rio do Peixe).

*Range*.—Eastern Brazil, from Maranhão (São Francisco), Piauh, and Ceará south to Goyáz (Rio Araguaya), Bahia, and extreme northern Minas Geraes (Ressaque, near the Rio Pardo).<sup>1</sup>

9: Brazil (São Francisco, Maranhão, 2; Júa, near Iguatú, Ceará, 2; Serra de Baturité, Ceará, 1; Macaco Secco, near Andarahy, Bahia, 3; Rio do Peixe, near Queimadas, Bahia, 1).

### Genus SERICOSSYPHA Lesson<sup>2</sup>

*Sericossypha* Lesson, Écho du Monde Savant, 11me année, 2me sém., No. 13, col. 302, Aug. 15, 1844—type, by orig. desig., *Sericossypha somptuosa* Lesson=*Tanagra (Lamprotes) albo-cristatus* Lafresnaye.

### \**Sericossypha albo-cristata* (Lafresnaye). WHITE-CAPPED TANAGER.

*Tanagra (Lamprotes) albo-cristatus* Lafresnaye, Rev. Zool., 6, p. 132, 1843—Colombia (type in coll. of F. de Lafresnaye, now in Museum of Com-

<sup>1</sup> *Additional material examined*.—Piauh: Parnaguá, 2; Burití, near Parnaguá, 2; below União, Rio Parnahyba, 1.—Bahia: island near Sambaiba, Rio São Francisco, 2; "Bahia," 5.—Goyáz: Leopoldina, Rio Araguaya, 1.—"Brazil," 1 (type of *T. rubricollis*).

<sup>2</sup> The late Jean Stolzmann considers this genus as being referable to the Chatterers (*Cotingidae*).

parative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 412, 1930).

*Lamprotes albo-cristatus* Lafresnaye, Mag. Zool., (2), 6, pl. 50, 1844—Colombia.

*Sericossypha somptuosa* Lesson, Écho du Monde Sav., 11me année, 2me sém., No. 13, col. 302, Aug. 15, 1844—"le Pérou, à Quito"—Ecuador (type in Abeillé Collection, Bordeaux).

*Lamprotes albicristata* Sclater, Proc. Zool. Soc. Lond., 23, p. 156, 1855—"Bogotá."

*Lamprotes albicristatus* Sclater, Proc. Zool. Soc. Lond., 24, p. 121, 1856—Colombia ("Bogotá" and "Santa Marta," errore) (monog.); idem, Cat. Coll. Amer. Bds., p. 82, 1862—"New Granada."

*Lamprotes albocristatus* Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 24—Tamiapampa, northern Peru.

*Sericossypha albocristata* Taczanowski, Orn. Pér., 2, p. 387, 1884—Peru (Tamiapampa and Gualama); Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 345—Tendalpata and Tambo de Aza, Department of Junín, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 11, 1911—Cumpang, near Tayabamba, Peru; Chapman, Bull. Amer. Mus. N. H., 36, p. 618, 1917—Almaguer, central Andes, Colombia; Todd and Carriker, Ann. Carnegie Mus., 14, p. 483, 1922 ("Santa Marta" record questioned); Chapman, Bull. Amer. Mus. N. H., 55, p. 684, 1926—above Baeza and lower Sumaco, Ecuador.

*Sericossypha albicristata* Sclater, Cat. Bds. Brit. Mus., 11, p. 232, 1886—Colombia ("Bogotá") and Ecuador (Yanayaca); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 18, 1899—Pun, eastern Ecuador; Goodfellow, Ibis, 1901, p. 469—"Baeza," eastern Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1087, 1912—Colombia ("Bogotá"), eastern Ecuador, and eastern Peru (Tamiapampa, Huayabamba, Chachapoyas, Vitoc, Tendalpata); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—"Baeza road to Napo, 6,000 ft.," Ecuador.

*Range*.—Temperate zone of eastern Colombia (central and eastern Andes), eastern Ecuador, and eastern Peru (Tamiapampa and Chachapoyas, Department of Amazonas; Cumpang, near Tayabamba, Department of Libertad; Tendalpata and Tambo de Aza, Department of Junín).<sup>1</sup>

4: Colombia (Páramo de Tamá, 3); Peru (Cumpang, near Tayabamba, Libertad, 1).

<sup>1</sup> Fontanier's skin in the Paris Museum is simply labeled "Colombie," and there is no reason for Sclater's statement that it came from "Santa Marta." Whether this bird really occurs at Baeza and on the "Baeza road to Napo" appears somewhat doubtful, since it is an inhabitant of the Temperate zone.

Peruvian specimens agree well with others from Colombia and Ecuador.

*Additional specimens examined*.—Colombia: "Bogotá," 5; unspecified, 1.—Ecuador: "Baeza, 5,500 ft.," 3; "Quito," 2.—Peru: Chachapoyas (alt. 7,300-9,000 ft.), 2; Cumpang, 2; Tendalpata, 1.

## Genus NESOSPINGUS Sclater

*Nesospingus* Sclater, *Ibis*, (5), 3, p. 273, July, 1885—type, by monotypy, *Chlorospingus speculariferus* Lawrence.

**Nesospingus speculariferus** (Lawrence). PORTO RICAN TANAGER.

*Chlorospingus*(?) *speculariferus* Lawrence, *Ibis*, (3), 5, p. 383, pl. 9, fig. 1, 1875—Porto Rico (type in U. S. National Museum); Gundlach, *Anal. Soc. Esp. Hist. Nat.*, 7, p. 190, 1878—Porto Rico (ex Lawrence).

*Chlorospingus speculariferus* Gundlach, *Journ. Orn.*, 26, pp. 159, 168, 1878—Porto Rico (descr.); idem, *l.c.*, 30, p. 161, 1882—Porto Rico (nest and eggs descr.); Stahl, *Fauna Puerto Rico*, pp. 60, 140, 1883—Porto Rico.

*Nesospingus speculariferus* Sclater, *Ibis*, 1885, p. 273—Porto Rico (crit.); idem, *Cat. Bds. Brit. Mus.*, 11, p. 272, 1886—Porto Rico; Cory, *Auk*, 3, p. 199, 1886 (ex Lawrence); idem, *Bds. W. Ind.*, p. 86, 1889—Porto Rico (descr.); idem, *Cat. W. Ind. Bds.*, p. 114, 1892—Porto Rico; Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 156, 1902—Porto Rico (monog.); Bowditch, *Auk*, 20, p. 14, 1903 (ex Lawrence); Berlepsch, *Verh. 5th Intern. Orn. Congr. Berlin*, pp. 1088, 1142, 1912—Porto Rico; Wetmore, *Bull. U. S. Dept. Agric.*, 326, p. 120, pl. 10, 1916—El Yunque, Cayey, and Maricao, Porto Rico; Struthers, *Auk*, 40, p. 477, 1923—Maricao, Porto Rico; Wetmore, *N. Y. Acad. Sci., Sci. Surv. Porto Rico & Virgin Is.*, 9, p. 544, pl. 65, 1927—Porto Rico (habits, food, song).

*Range*.—Island of Porto Rico (middle slopes of El Yunque and near Maricao), Greater Antilles.

## Genus CHLOROSPINGUS Cabanis

*Chlorospingus* Cabanis, *Mus. Hein.*, 1, p. 139, Oct., 1851—type, by virtual monotypy, *Chlorospingus leucophrys* Cabanis=*Arremon ophthalmicus* Du Bus.

*Hylospingus* Nelson, *Smiths. Misc. Coll.*, 60, No. 3, p. 18, 1912—type, by orig. desig., *Hylospingus inornatus* Nelson.

**\*Chlorospingus ophthalmicus ophthalmicus** (Du Bus).  
BROWN-HEADED CHLOROSPINGUS.

*Arremon ophthalmicus* Du Bus, *Bull. Acad. Roy. Sci., Lettr. et Beaux-Arts Belg.*, 14, (2), p. 106, 1847—Mexico (type in Brussels Museum); Lafresnaye, *Rev. Zool.*, 11, p. 247, 1848 (reprint of original description).

*Tachyphonus albitempora* Lafresnaye, *Rev. Zool.*, 11, p. 12, 1848—"in Colombia," errore=Mexico (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, *Bull. Mus. Comp. Zool.*, 70, p. 412, 1930).

*Poospiza olivacea* Bonaparte, *Consp. Gen. Av.*, 1, (2), p. 473, end of 1850—"Brazil?" (descr. of young; type in Paris Museum examined).<sup>1</sup>

<sup>1</sup> The type is a young bird in fluffy plumage with pale brown, underneath almost whitish bill. The olive yellow chest band and the more greenish lateral area are not yet developed and merely suggested by a faint buffy tinge, only the



*Chlorospingus leucophrys* Cabanis, Mus. Hein., 1, p. 139, Oct., 1851—Jalapa, Vera Cruz, Mexico (types in Heine Collection, now in Municipal Museum, Halberstadt).

*Chlorospingus ophthalmicus* Sclater, Proc. Zool. Soc. Lond., 24, p. 89, 1856—Jalapa and Córdoba, Mexico (monog.); idem, l.c., p. 302, 1856—Córdoba; idem, l.c., 27, pp. 364, 377, 1859—vicinity of Jalapa (Vera Cruz) and Totontepec (Oaxaca), Mexico; idem, Cat. Coll. Amer. Bds., p. 88, 1862—part, spec. c, d, Jalapa and Orizaba; Cabanis, Journ. Orn., 14, p. 162, 1866—Mexico (crit.); Sumichrast, Mem. Bost. Soc. Nat. Hist., 1, p. 549, 1869—Vera Cruz, Mexico; Salvin, Cat. Strickl. Coll., p. 186, 1882—San Pedro, Mexico; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 314, 1884—southeastern Mexico; Sclater, Cat. Bds. Brit. Mus., 11, p. 238, 1886—Mexico (Orizaba, Jalapa); Chapman, Bull. Amer. Mus. N. H., 10, p. 27, 1898—Jalapa; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 160, 1902—southeastern Mexico (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1089, 1912—southeastern Mexico; Bangs and Penard, Bull. Mus. Comp. Zool., 63, p. 37, 1919—Mexico (crit.).

*Chlorospingus sumichrasti* Ridgway, Proc. Wash. Acad. Sci., 3, p. 150, 1901—Montaña Azúl, near Orizaba [Vera Cruz], Mexico (type in U. S. National Museum examined); idem, Bull. U. S. Nat. Mus., 50, Part 2, p. 162, 1902—Orizaba (monog.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1089, 1142, 1912—Montaña Azúl; Griscom, Amer. Mus. Nov., 293, p. 6, 1928—Potrero, Vera Cruz (spec. examined).

*Chlorospingus ophthalmicus ophthalmicus* Underdown, Ibis, 1932, p. 640—southeastern Mexico (monog.).

*Range*.—Subtropical zone of southeastern Mexico, in states of Vera Cruz (Montaña Azúl, Orizaba, Mirador, Jico, Jalapa, Córdoba, Potrero), Puebla (Huachinango), and Oaxaca (Mount Zempoaltepec, Totontepec).<sup>1</sup>

2: Mexico (Jalapa, 2).

lower flanks and under tail coverts being greenish yellow as in the adults. The tail feathers are apically pointed. The green color of the back has almost completely disappeared through exposure to light. Nevertheless, there is no doubt that the type pertains to the Mexican and *not* to the Coban form. The pileum, though the feathering is still that of the juvenile dress, is but slightly duller brownish than in Jalapa birds (e.g., No. 27831, Field Museum), and only above the large white postocular spot is there a suggestion of a dusky streak, whereas Coban specimens have the upper part of the head slate gray laterally bordered by a blackish stripe widening posteriorly. The type has no collector's label and was acquired in 1839 with a miscellaneous lot of birds. There is no evidence of its having been collected by Delattre in Guatemala. Its measurements are: wing, 68; tail, 61; bill, 11.

<sup>1</sup>*C. sumichrasti* was based upon a freshly molted individual of *ophthalmicus*, and the alleged specific characters prove to be seasonal differences. The late C. Eliot Underdown having fully explained the case, I need not dwell any further on the subject beyond saying that I have independently studied the same material (and some in addition) and thoroughly agree with his conclusions.

*Material examined*.—Mexico, Vera Cruz: Jalapa, 11; Mirador, 1; Jico, 2; Potrero, 2; Orizaba, 4; Oaxaca, Mount Zempoaltepec, 3.

**Chlorospingus ophthalmicus albifrons** Salvin and Godman.<sup>1</sup>  
WHITE-FRONTED CHLOROSPINGUS.

*Chlorospingus albifrons* Salvin and Godman, *Ibis*, (6), 1, p. 237, 1889—Omiteme, Sierra Madre del Sur, Guerrero, Mexico (type in Salvin-Godman Collection, now in British Museum); Ridgway, *Bull. U. S. Nat. Mus.*, 50, Part 2, p. 162, 1902—Guerrero (Omiteme, mountains near Chilpancingo); Berlepsch, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1089, 1142, 1912—southwestern Mexico.

*Chlorospingus ophthalmicus albifrons* Underdown, *Ibis*, 1932, p. 642—Omiteme and Chilpancingo, Guerrero (monog.).

*Range*.—Subtropical zone of southwestern Mexico, in State of Guerrero (Omiteme, mountains near Chilpancingo).

**\*Chlorospingus ophthalmicus dwighti** Underdown.<sup>2</sup> DWIGHT'S  
CHLOROSPINGUS.

*Chlorospingus ophthalmicus dwighti* Underdown, *Auk*, 48, p. 612, 1931—Finca Sepur, Vera Paz, Guatemala (type in the American Museum of Natural History, New York); idem, *Ibis*, 1932, p. 643—Atlantic slope of Chiapas and Guatemala (monog.).

*Chlorospingus olivaceus* (not *Poospiza olivacea* Bonaparte) Sclater, *Proc. Zool. Soc. Lond.*, 24, p. 90, 1856—Central America?=Atlantic Guatemala (monog.); Salvin and Godman, *Biol. Centr.-Amer.*, Aves, 1, p. 315, 1884—Guatemala (Coban, Kamkhal, San Gerónimo); Sclater, *Cat. Bds. Brit. Mus.*, 11, p. 240, 1886—Guatemala (Coban, Kamkhal); Nelson, *Auk*, 15, p. 157, 1898—Tumbalá, Chiapas; Ridgway, *Bull. U. S. Nat.*

<sup>1</sup> *Chlorospingus ophthalmicus albifrons* Salvin and Godman: Differs from the nominate race by much broader, abruptly defined white frontal band; warm buff (instead of nearly whitish to pale buffy) throat and malar region, the latter more strongly spotted with dusky; and much darker, yellow ochre pectoral band. Wing (adult female), 69; tail, 61.

This form presents an interesting case of parallelism by its striking resemblance to the geographically remote *C. o. argentinus*, from which it may, however, be separated by the conspicuous white frontal band (just faintly suggested by a narrow line of buff in *argentinus*), darker sides of the head (especially the auriculars), greener (yellowish-citrine rather than sulphine yellow) color of sides and flanks, and grayish (not nearly pure white) middle of the lower parts. The pileum is just as warm brown as in newly molted specimens of *C. o. ophthalmicus*.

*Material examined*.—Mexico, Guerrero: mountains near Chilpancingo, 1.

<sup>2</sup> *Chlorospingus ophthalmicus dwighti* Underdown: Similar to *C. o. ophthalmicus*, but pileum slate-gray, becoming blackish laterally, producing two rather broad, though not abruptly defined lateral stripes; back somewhat darker and more citrine, less greenish; middle of belly more grayish, etc. Dimensions about the same, but tail on average longer.

Birds from Chiapas (Tumbalá) are precisely similar to the series from Vera Paz. Specimens from Nebaj (Province of El Quiché), Barrillos (Province of Huehuetenango), and San Mateo (same province) are also indistinguishable from Vera Paz skins, but differ very markedly by their particolored heads from *postularis*, to which they were referred by Griscom.

*Material examined*.—Mexico, Chiapas: Tumbalá, 5.—Guatemala: San Mateo (forty-five miles east of Nenton, Huehuetenango), 2; Barrillos, 1; Nebaj (El Quiché), 2; Finca Sepur, Vera Paz, 1; Finca Sepacuite, Vera Paz, 4; Coban, 1; Vera Paz, 8.

Mus., 50, Part 2, p. 159, 1902—Guatemala (Coban, San Gerónimo, Kamkhal), and Chiapas (Tumbalá); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1088, 1912—Chiapas and [eastern] Guatemala.

*Chlorospingus olivaceus olivaceus* Griscom, Bull. Amer. Mus. N. H., 64, p. 384, 1932—eastern Guatemala (Finca Sepacuite, Finca Sepur).

*Chlorospingus ophthalmicus* (not *Arremon ophthalmicus* Du Bus) Sclater and Salvin, Ibis, 1860, p. 32—Coban, Vera Paz; Sclater, Cat. Coll. Amer. Bds., p. 88, 1862—part, spec. a, b, Coban; Boucard, Ann. Soc. Linn. Lyon, (n.s.), 25, p. 43, 1878—Guatemala=Vera Paz (spec. examined).

*Chlorospingus olivaceus postocularis* (not of Cabanis) Griscom, Bull. Amer. Mus. N. H., 64, p. 385, 1932—part, Barrillos, Nebaj, and San Mateo, northern Guatemala.

*Range.*—Subtropical zone of the Atlantic slope of Chiapas (Tumbalá) and Guatemala (Finca Sepur, Finca Sepacuite, Coban, San Gerónimo, Khamkal, Nebaj, Barrillos, San Mateo).<sup>1</sup>

1: Guatemala (Vera Paz, 1).

### ***Chlorospingus ophthalmicus postocularis* Cabanis.<sup>2</sup> DUSKY-HEADED CHLOROSPINGUS.**

*Chlorospingus postocularis* Cabanis, Journ. Orn., 14, p. 163, 1866—"Guatimala" =Sierra above Costa Cuca, Pacific slope (type in Berlin Museum examined); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 314, 1886—Volcan de Fuego, Guatemala; Sclater, Cat. Bds. Brit. Mus., 11, p. 240, 1886—Guatemala (Dueñas, Volcan de Fuego); Nelson, Auk, 15, p. 157, 1898—Pinabete, Chiapas (crit.); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 160, 1902—Guatemala (Dueñas, Volcan de Agua, Volcan de Fuego) and Chiapas (Pinabete, Chicharras); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1089, 1142, 1912—western Guatemala ("Costa Cuca," Dueñas, Volcan de Agua, Volcan de Fuego) and Chiapas.

*Chlorospingus atriceps* Nelson, Auk, 14, p. 65, 1897—Pinabete, Chiapas, Mexico (type in U. S. National Museum examined).

<sup>1</sup> A closely allied race from the Sierra de las Minas, Guatemala, has recently been separated by Griscom (Ibis, 1935, p. 816) as *C. o. richardsoni*.

<sup>2</sup> *Chlorospingus ophthalmicus postocularis* Cabanis: Very similar to *C. o. dwighti*, but white postocular spot smaller and pileum without the blackish lateral stripes, the entire top of the head being nearly chaetura drab, sometimes flecked with blackish anteriorly. Wing, 71–76, (female) 68–73; tail, 59–62, (female) 56–58.

Birds from San Lucas and Antigua are identical with one of Cabanis's topotypes in the Berlepsch Collection. The Chiapas form (*atriceps*) does not seem to be separable. The type, it is true, has the pileum darker (almost wholly fuscous black) than any other example, but a second example (female) is not so dark, and another male does not differ at all from the Antigua bird. While Chiapas birds thus may average slightly darker on the head, this slight variation needs corroboration by more adequate material from both Guatemala and Chiapas than is at present available. *C. o. postocularis*, which replaces the preceding race on the Pacific slope, connects *dwighti* with the southern *honduratius*.

The type is labeled "Costa Cuca," which means doubtless the mountain range above the coast strip known under that name.

*Material examined.*—Mexico: Pinabete, southwestern Chiapas, 3.—Western Guatemala: "Costa Cuca," 2; Volcan de Fuego, 1; Antigua, 1; San Lucas, 1.



*Chlorospingus ophthalmicus postocularis* Underdown, Ibis, 1932, p. 644—Pacific slope of Chiapas and Guatemala (monog.).

*Chlorospingus olivaceus postocularis* Griscom, Bull. Amer. Mus. N. H., 64, p. 385, 1932—part, western Guatemala ("Santa Ilania," Volcan de Agua, San Lucas) (crit.).

*Range.*—Subtropical zone of the Pacific slope of Chiapas (Pinabete, Chicharras) and Guatemala (Dueñas, Antigua, Volcan de Agua, Volcan de Fuego, San Lucas).

### **Chlorospingus ophthalmicus honduratus** Berlepsch.<sup>1</sup> HONDURAN CHLOROSPINGUS.

*Chlorospingus honduratus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1088, 1142, 1912—Volcan de Puca, Honduras (type in coll. of H. von Berlepsch, now in Frankfurt Museum, examined).

*Chlorospingus schistaceiceps* Dickey and van Rossem, Proc. Biol. Soc. Wash., 41, p. 190, 1928—Los Esesmiles, Chalatenango, El Salvador (type in coll. of Donald R. Dickey, Pasadena); Stone, Proc. Acad. Nat. Sci. Phila., 84, p. 339, 1932—San Juancito, Honduras (spec. examined).

*Chlorospingus ophthalmicus honduratus* Underdown, Ibis, 1932, p. 645—El Salvador and Honduras (monog.).

*Range.*—Subtropical zone of El Salvador and Honduras (Volcan de Puca; San Juancito).

### \***Chlorospingus ophthalmicus regionalis** Bangs.<sup>2</sup> COSTA RICAN CHLOROSPINGUS.

<sup>1</sup>*Chlorospingus ophthalmicus honduratus* Berlepsch: Nearest to *C. o. postocularis*, but distinguished by much lighter and clearer gray (deep neutral gray) pileum (without dusky spots anteriorly); much brighter green (near Warbler green) back; clearer gray auriculars; much deeper yellow and more compact pectoral band, sides, and flanks. Wing, 71–75, (female) 67–70; tail, 60–65, (female) 59–62.

Berlepsch's original description is disfigured by a pen-slip, since the pileum is clear gray and *not* pale brown, as I have lately ascertained by reexamining the type and a second specimen from the Volcan de Puca. A series from San Juancito, Honduras, is similar. Six skins from Los Esesmiles, El Salvador (*schistaceiceps*), when compared to the latter, agree in every detail (clear gray pileum; rich, nearly Warbler green back; extent of white postocular streak sometimes encroaching on both the upper and lower eyelid; nearly pure white throat freckled with dusky, etc.) and differ but very slightly by having the yellow pectoral area not quite so bright. In the palest individual this band is just a faint shade darker than in certain specimens of *C. o. dwighti*, but the brightest bird is hardly distinguishable from the lightest colored Honduras example. This average difference seems altogether too insignificant to warrant recognition by name.

*Material examined.*—Honduras: Volcan de Puca, 2; San Juancito, 7.—El Salvador: Los Esesmiles, Chalatenango, 6.

<sup>2</sup>*Chlorospingus ophthalmicus regionalis* Bangs differs from *C. o. honduratus* by brighter (wax-yellow) pectoral band; more buffy throat with heavier dusky streaking, and hair-brown (not gray) pileum.

Ten specimens from Nicaragua are indistinguishable from Costa Rican examples, though some have the pileum a faint shade more grayish brown.

*Additional material examined.*—Nicaragua: San Rafael del Norte, 5; Matagalpa, 1.—Costa Rica: Azahár de Cartago, 2.



*Chlorospingus regionalis* Bangs, Proc. Biol. Soc. Wash., 19, p. 112, 1906—Cariblanco de Sarapiquí, Costa Rica (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 413, 1930); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 279, 1910—Coliblanco, Costa Rica.

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) Cassin, Proc. Acad. Nat. Sci. Phila., 1865, p. 171—San José, Costa Rica; Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—part, San José, Turrialba, Barránca, and San Mateo, Costa Rica; Frantzius, Journ. Orn., 17, p. 299, 1869—Costa Rica; Boucard, Proc. Zool. Soc. Lond., 1878, p. 55—La Laguna, Naránjo, and Navarro, Costa Rica; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 315, 1884—part, Costa Rica (San José, Turrialba, Barránca, San Mateo); Selater, Cat. Bds. Brit. Mus., 11, p. 239, 1886—part, spec. a-e, Costa Rica (Volcan de Cartago, Irazú); Zeledón, Anal. Mus. Nac. Costa Rica, 1, p. 110, 1887—La Palma de San José and Naránjo de Cartago, Costa Rica.

*Chlorospingus albitempora* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 163, 1902—part, Costa Rica (Navarro, Barránca, San José, Turrialba, San Mateo, Volcan de Cartago, Volcan de Irazú, Rio Súcio).

*Chlorospingus novicius regionalis* Carriker, Ann. Carnegie Mus., 6, p. 839, 1910—Costa Rica (crit., range, habits).

*Chlorospingus albitempora regionalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1090, 1143, 1912—Costa Rica (excl. Dota).

*Chlorospingus venezuelanus regionalis* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 194, 1924—Costa Rica excepting southwestern section (diag.).

*Chlorospingus ophthalmicus regionalis* Underdown, Ibis, 1932, p. 646—Nicaragua and Costa Rica (monog.).

*Chlorospingus postocularis* (not of Cabanis) Salvin and Godman, Ibis, 1892, p. 326—Matagalpa, Nicaragua.

[*Chlorospingus*] *intermedius* (Cabanis MS.) Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1143 (in text), 1912—Costa Rica.

*Range*.—Subtropical zone of Nicaragua and Costa Rica (exclusive of southwestern section).

25: Nicaragua (San Rafael del Norte, 6); Costa Rica (Coliblanco, 13; "Limón," 1; Naránjo, 1; Santa Cruz de Turrialba, 2; Peralta, 2).

### *Chlorospingus ophthalmicus novicius* Bangs.<sup>1</sup> CHIRIQUÍ CHLOROSPINGUS.

<sup>1</sup>*Chlorospingus ophthalmicus novicius* Bangs: Very near to *C. o. regionalis*, but with much larger, thicker as well as longer bill; pileum deeper brown; throat deeper buffy and more heavily speckled with dusky; pectoral band deeper, lemon chrome to aniline yellow instead of wax yellow. Wing, 64-68, (female) 65-69; bill, 13-14.

Two specimens from Ujurrás de Térraba are identical with a topotypical series. No material is available from the Dota Mountains.

*Material examined*.—Panama, Chiriquí: Boquete, 10; "Chiriquí," 1.—Costa Rica: Ujurrás de Térraba, 2.

*Chlorospingus novicius* Bangs, Proc. New Engl. Zool. Cl., 3, p. 67, Jan., 1902—Volcan de Chiriquí, Panama (type in coll. of E. A. and O. Bangs, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 412, 1930).

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) (?) Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1869—part, Dota, Costa Rica; Salvin, Proc. Zool. Soc. Lond., 1870, p. 188—Volcan de Chiriquí; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 315, 1884—part, Volcan de Chiriquí, Panama; Sclater, Cat. Bds. Brit. Mus., 11, p. 239, 1886—part, spec. f, g, southern slope of Volcan de Chiriquí.

*Chlorospingus albitempora* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 163, 1902—part, Chiriquí (Boquete, Volcan de Chiriquí) and (?)Dota, Costa Rica.

*Chlorospingus albitempora novicius* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1089, 1143, 1912—Chiriquí, Panama.

*Chlorospingus novicius novicius* Carriker, Ann. Carnegie Mus., 6, p. 839, 1910—southwestern Costa Rica (Ujurrás de Térraba; (?)El Copey, La Lagunaria and Santa María de Dota).

*Chlorospingus venezuelanus novicius* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 194, 1924—Chiriquí and southwestern Costa Rica (crit.).

*Chlorospingus ophthalmicus novicius* Underdown, Ibis, 1932, p. 648—southwestern Costa Rica and Chiriquí (monog.).

*Range.*—Subtropical zone of southwestern Costa Rica and extreme western Panama (Chiriquí).

**\**Chlorospingus ophthalmicus jacqueti* Hellmayr.<sup>1</sup> JACQUET'S CHLOROSPINGUS.**

*Chlorospingus venezuelanus jacqueti* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 28, 1921—Galipán, Cerro del Avila, near Caracas, Venezuela (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, pp. 193, 195, 1924—Galipán, Venezuela (crit.).

<sup>1</sup>*Chlorospingus ophthalmicus jacqueti* Hellmayr: Differs from *C. o. novicius* by much smaller bill; much lighter greenish back; deeper yellow pectoral band; decidedly grayish middle of the belly, etc. Wing, 65–76, (female) 61–70; tail, 56–63, (female) 53–60; bill, 11–12.

The distinction between *C. o. jacqueti*, of the Caracas region, and *C. o. cumbreanus*, of Carabobo, cannot be maintained, as has been pointed out by the late C. E. Underdown. Although birds from the extreme eastern area of the range average paler on the pileum and brighter yellow on the breast, so many individuals in a series from the eastern Andes of Colombia are indistinguishable from what I called *jacqueti* that further subdivision of the race becomes impracticable. A single adult female from Lagunita de Aroa, Yaracuy, closely approaches *C. o. venezuelanus* in its very dark brown head, and series from Lara and the Páramo de Rosas (Trujillo) also show more or less intermediacy towards that form.

*Material examined.*—Venezuela: Galipán, Cerro del Avila, 22; El Limón, 4; Pico Naiguata, Miranda, 1; Colonia Tovar, Aragua, 5; La Cumbre de Valencia, Carabobo, 23; Guarico, Lara, 4; Anzoategui, Lara, 3; Lagunita de Aroa, Yaracuy, 1; Páramo de Rosas, Trujillo, 2; Guamito, Trujillo, 11.—Colombia: Bucaramanga, 1; La Palmita, 25; Las Ventanas, 7; Ramirez, 2; Cachiri, 2.

*Chlorospingus venezuelanus cumbreanus* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 29, 1921—Cumbre de Valencia, Carabobo, Venezuela (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 196, 1924—Cumbre de Valencia (crit.).

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—"Bogotá"; idem, l.c., 24, p. 89, 1856—part, "Bogotá" and Venezuela; idem and Salvin, l.c., 1868, pp. 627, 630—Cumbre de Valencia, Venezuela; Wyatt, Ibis, 1871, p. 327—Alto, between Ocaña and Bucaramanga, Colombia; Berlepsch, Journ. Orn., 32, p. 293, 1884—Bucaramanga, Colombia (spec. examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 239, 1886—part, spec. h, j, Caracas, Venezuela.

*Chlorospingus albitempora* Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 163, 1902—part, Colombia and Venezuela (Cumbre de Valencia); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1089, 1142, 1912—part, Colombia ("Bogotá," Bucaramanga) and Venezuela (Cumbre de Valencia).

*Chlorospingus albitempora albitempora* Hellmayr and Seilern, Arch. Naturg., 78, A, Heft 5, p. 65, 1912—Cumbre de Valencia, Venezuela.

*Chlorospingus ophthalmicus jacqueti* Underdown, Ibis, 1932, p. 649—Venezuela and Colombia (monog.).

*Range.*—Subtropical zone of northern Venezuela, from the Caracas region west to Lara and Trujillo, and of the northern part of the eastern Andes of Colombia (Santander).<sup>1</sup>

4: Colombia (Cachiri, Santander, 2); Venezuela (Guamito, Trujillo, 2).

#### \**Chlorospingus ophthalmicus venezuelanus* Berlepsch.<sup>2</sup>

##### MÉRIDA CHLOROSPINGUS.

*Chlorospingus albitemporalis venezuelanus* Berlepsch, Ornith. Monatsber., 1, p. 11, 1893—Mérida, Venezuela (type in coll. of H. von Berlepsch, now in Frankfurt Museum).

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida.

*Chlorospingus albitempora venezuelanus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1090, 1912—Mérida.

*Chlorospingus venezuelanus venezuelanus* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 196, 1924—Mérida (crit.).

*Chlorospingus ophthalmicus venezuelanus* Underdown, Ibis, 1932, p. 651—Andes of Mérida, Venezuela (monog.).

<sup>1</sup> There is no record from Cundinamarca in literature. Sclater's locality "Bogotá" was given under the assumption that the type of *Tachyphonus albitempora* Lafresnaye came from there.

<sup>2</sup> *Chlorospingus ophthalmicus venezuelanus* Berlepsch: Nearest to *C. o. jacqueti*, but pileum very much darker brown, nearly black; throat deeper buff and much more profusely spotted with dusky; pectoral band darker, more orange yellow. Wing, 66–73, (female) 63–68; tail, 57–61, (female) 54–58; bill, 11–12.

*Additional material examined.*—Venezuela, Mérida: Mérida, 4; El Valle, 5; Pedregosa, 1; Culata, 1; Heights of Tabay, 4.

*Range*.—Subtropical zone of extreme western Venezuela (in states of Mérida and Tachira).

5: Venezuela (near Mérida, 1; El Valle, 1; Nevados, 1; Culata, 1; Páramo de Tamá, Tachira, 1).

***Chlorospingus ophthalmicus nigriceps* Chapman.<sup>1</sup> BLACK-HEADED CHLOROSPINGUS.**

*Chlorospingus albitempora nigriceps* Chapman, Bull. Amer. Mus. N. H., 31, p. 166, 1912—Miraflores, west slope of central Andes, Cauca, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 618, 1917—Miraflores, Salento, Santa Elena, Rio Toché, El Eden, La Candela, and Andalucia, central and eastern Andes, Colombia.

*Chlorospingus venezuelanus nigriceps* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 197, 1924—Colombia (diag.).

*Chlorospingus ophthalmicus nigriceps* Underdown, Ibis, 1932, p. 651—central Andes and west slope of eastern Andes, Colombia (monog.).

*Range*.—Subtropical zone of the central Andes (both slopes) and west slope of eastern Andes (Andalucia) of Colombia.

***Chlorospingus ophthalmicus bolivianus* Hellmayr.<sup>2</sup> BOLIVIAN CHLOROSPINGUS.**

*Chlorospingus venezuelanus bolivianus* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 29, 1921—San Cristóbal, Yungas of Cochabamba, Bolivia (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 198, 1924—Yungas of La Paz and Cochabamba, Bolivia (diag.).

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 24, p. 89, 1856—part, Bolivia;<sup>3</sup> idem, l.c., 26, p. 293, 1858—"from some district in the interior of Peru, if not from Bolivia"; idem, Cat. Coll. Amer. Bds., p. 89, 1862—part, spec. a, Bolivia;<sup>3</sup> Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—Sorata,

<sup>1</sup> *Chlorospingus ophthalmicus nigriceps* Chapman: Agrees with *C. o. venezuelanus* in blackish crown and sides of the head, but differs by lacking all trace of the white postocular spot; dingy whitish instead of deep buffy ground-color of the throat, and decidedly paler, more lemon yellow pectoral band. The black of the head, besides, is rather deeper, less brownish. Throat and jugular band are about the same color as in *C. o. jacqueti*, but the former is just as profusely freckled with dusky as in *C. o. venezuelanus*. Wing, 69–75, (female) 67–69; tail, 59–64.

*Material examined*.—Western Andes of Colombia: Santa Elena, 6; El Eden, 1; La Candela, Huila, 1.

<sup>2</sup> *Chlorospingus ophthalmicus bolivianus* Hellmayr: Nearest to *C. o. jacqueti* and with equally developed white postocular spot, but middle of abdomen nearly pure white instead of grayish; throat paler buff and less spotted with dusky, and sides of the body brighter, more yellowish green. Similar also to *C. o. fulvicularis*, but pileum sooty instead of sepia brown; throat much paler (whitish to light buff); pectoral band likewise lighter, less ochraceous. Wing, 66–70, (female) 63–65; tail, 58–62½, (female) 54–58.

*Material examined*.—Bolivia, Yungas of La Paz: Chaco, 2; Sandillani, 1; Songo, 1; Yungas of Cochabamba, San Cristóbal, 3; Cocapata, 6; Quebrada Onda, 2.

<sup>3</sup> The specimens collected by T. Bridges may pertain to *C. o. fulvicularis*.



Nairapi, and Tilotilo, Yungas of La Paz, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 239, 1886—part, spec. j-p, Bolivia (Tilotilo, Sorata, Nairapi).<sup>1</sup>

*Chlorospingus albitempora* Allen, Bull. Amer. Mus. N. H., 2, p. 82, 1889—Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1089, 1142, 1912—part, Bolivia (Tilotilo, Sorata, Nairapi, Tanampaya, Songo, Sandillani, Cocapata, San Cristóbal, Chaco, Quebrada Onda).

*Chlorospingus ophthalmicus bolivianus* Underdown, Ibis, 1932, p. 652—Bolivia (monog.).

*Range*.—Subtropical zone of the northern slopes of the Sierra de Cochabamba and the Cordillera of La Paz.

**\*Chlorospingus ophthalmicus fulvicularis Berlepsch.<sup>2</sup> FULVOUS-THROATED CHLOROSPINGUS.**

*Chlorospingus fulvicularis* Berlepsch, Journ. Orn., 49, p. 86, 1901—Samaipata, Province of Valle Grande, Bolivia (type in Berlepsch Collection, now in Frankfort Museum, examined).

*Chlorospingus albitempora* (not *Tachyphonus albitempora* Lafresnaye) Salvin, Cat. Strickl. Coll., p. 196, 1882—"Brazil?"=Bolivia (spec. examined).

*Chlorospingus albitempora fulvicularis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1090, 1912—eastern Bolivia (Samaipata, San Jacinto).

*Chlorospingus venezuelanus fulvicularis* Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 199, 1924—south slope of Sierra de Cochabamba, Bolivia (crit.).

*Chlorospingus ophthalmicus fulvicularis* Underdown, Ibis, 1932, p. 653—Bolivia (monog.).

*Range*.—Subtropical zone of the southern slope of the Sierra de Cochabamba (Samaipata, San Jacinto, Roquefalda), in central Bolivia.

3: Bolivia, Cochabamba (Roquefalda, 1; Incachaca, 2).

**\*Chlorospingus ophthalmicus argentinus Hellmayr.<sup>3</sup> ARGENTINE CHLOROSPINGUS.**

<sup>1</sup> The specimens collected by T. Bridges may pertain to *C. o. fulvicularis*.

<sup>2</sup> *Chlorospingus ophthalmicus fulvicularis* Berlepsch: Nearest to *C. o. bolivianus*, but differs by much paler (dark hair brown or sepia brown instead of sooty) top and sides of head, deep isabella color throat, and much darker, deep ochraceous pectoral band. Wing, 67-68, (female) 60-64; tail, 54-59.

*Additional material examined*.—Bolivia: Samaipata, 1 (the type); San Jacinto, 2; Roquefalda, 5; unspecified, 1.

<sup>3</sup> *Chlorospingus ophthalmicus argentinus* Hellmayr: Closely related to *C. o. fulvicularis*, but distinguished by much lighter, grayish brown head, buffy white (faintly freckled) throat, and much paler, lemon to yolk yellow pectoral band. Wing, 67-70, (female) 62-67; tail, 57-64.

A single specimen from Caraparicito, southern Santa Cruz, Bolivia, resembles an Argentine series, though by slightly darker throat it verges in the direction of *C. o. fulvicularis*.

*Material examined*.—Argentina: Metan, Salta, 2; Ledesma, Jujuy, 3; San Francisco, Cerro de Calilegua, Jujuy, 2.—Bolivia: Caraparicito, Santa Cruz, 1.

*Chlorospingus venezuelanus argentinus* Hellmayr, Anz. Orn. Ges. Bay., 1, No. 4, p. 30, 1921—San Francisco, Cerro de Calilegua, Jujuy, Argentina (type in Munich Museum); idem, Arch. Naturg., 90, A, Heft 2, p. 200, 1924—Salta and Jujuy, Argentina (diag.); Laubmann, Wiss. Erg. Deuts. Gran Chaco Exp., Vögel, p. 276, 1930—Caraparicito, Department of Santa Cruz, Bolivia (spec. examined).

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) Salvadori, Boll. Mus. Zool. Torino, 12, No. 292, p. 6, 1897—San Lorenzo, Jujuy.

*Chlorospingus albitempora* Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 378, 1910—Salta and Jujuy (San Lorenzo); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1089, 1142, 1912—part, Salta, Argentina.

*Chlorospingus ophthalmicus* (not *Arremon ophthalmicus* Du Bus) Lillo, Rev. Letr. y Cienc. Soc., 3, No. 13, p. 42, 1905—Salta.

*Chlorospingus fulvicularis* (not of Berlepsch) Hartert and Venturi, Nov. Zool., 16, p. 172, 1909—Ledesma, Jujuy, and Metan, Salta.

*Chlorospingus ophthalmicus argentinus* Underdown, Ibis, 1932, p. 654—northwestern Argentina and southern Bolivia (monog.).

*Range*.—Subtropical zone of northwestern Argentina (provinces of Salta and Jujuy) and the adjacent parts of extreme southern Bolivia (Caraparicito, Department of Santa Cruz).

1: Argentina (Ledesma, Jujuy, 1).

## **Chlorospingus punctulatus** Scater and Salvin.<sup>1</sup> DOTTED

### CHLOROSPINGUS.

*Chlorospingus punctulatus* Scater and Salvin, Proc. Zool. Soc. Lond., 1869, p. 440—Cordillera del Chucú, Veraguas (type in Salvin-Godman Collection, now in British Museum); Salvin, l.c., 1870, p. 188—Cordillera del Chucú; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 316, pl. 22, fig. 1, 1884—Cordillera del Chucú; Scater, Cat. Bds. Brit. Mus., 11, p. 241, 1886—Cordillera del Chucú; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 166, 1902—Veraguas (Cordillera del Chucú; Cascajal); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1090, 1912—Veraguas.

*Range*.—Subtropical zone of western Panama (Cordillera del Chucú, Veraguas; Cascajal, Coclé).

## \***Chlorospingus zeledoni** Ridgway.<sup>2</sup> ZELEDÓN'S CHLOROSPINGUS.

<sup>1</sup> This species I have not seen and cannot say anything about its relationship. According to descriptions, it resembles *C. pileatus* in the black head, but has the chin and throat yellow thickly flecked with blackish brown. In place of the long white superciliaries so characteristic of *C. pileatus*, it is said to have merely an elongated white postocular spot like *C. ophthalmicus* and allies. The figure in the "Biologia Centrali-Americana," however, shows even more extensive, though yellowish-tinged superciliaries than *C. pileatus*, but it might have been based upon an immature bird. But even if so, it strongly suggests affinities to the sooty-capped *Chlorospingus*, which *C. punctulatus* seems to replace in Veraguas.

<sup>2</sup> *Chlorospingus zeledoni* Ridgway: Similar to *C. pileatus pileatus*, but color of chest, sides, and flanks pale yellowish olive, not distinctly contrasted with the pale gray of the throat and abdomen; sometimes the entire under parts nearly uniform pale gray excepting an olive-greenish tinge on the flanks. Juvenile

*Chlorospingus zeledoni* Ridgway, Proc. Biol. Soc. Wash., 18, p. 212, 1905—Volcan de Irazú, Costa Rica (type in U. S. National Museum); Bangs, Proc. New Engl. Zool. Cl., 4, p. 33, 1908—Volcan de Irazú (crit.); Carriker, Ann. Carnegie Mus., 6, p. 837, 1910—volcanoes of Turrialba and Irazú, Costa Rica (crit.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1088, 1912—Irazú and Turrialba, Costa Rica.

*Chlorospingus pileatus* (not of Salvin) Cherrie, Proc. U. S. Nat. Mus., 14, p. 531, 1891—part, Volcan de Irazú (descr. of young).

*Range.*—Subtropical zone of Costa Rica (volcanoes of Turrialba and Irazú).

1: Costa Rica (El Roble, Irazú, 1).

**\*Chlorospingus pileatus pileatus** Salvin. SOOTY-CAPPED  
CHLOROSPINGUS.

*Chlorospingus pileatus* Salvin, Proc. Zool. Soc. Lond., 1864, p. 581—Volcan de Cartago [=Irazú], Costa Rica (type in Salvin-Godman Collection, now in British Museum); Lawrence, Ann. Lyc. Nat. Hist. N. Y., 9, p. 101, 1868—Póas and Rancho Redondo, Costa Rica; Ridgway, Proc. U. S. Nat. Mus., 6, p. 412, 1884—Birris, Costa Rica (descr. of young); Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 316, pl. 22, fig. 2, 1884—Costa Rica (Volcan de Irazú, Póas, Rancho Redondo) and Panama (Chiriquí); Sclater, Cat. Bds. Brit. Mus., 11, p. 241, 1886—Costa Rica (Irazú) and Chiriquí; Cherrie, Proc. U. S. Nat. Mus., 14, p. 531, 1891—part, Volcan de Póas, Costa Rica (descr. of young); Bangs, Proc. New Engl. Zool. Cl., 3, p. 67, 1902—Boquete and Volcan de Chiriquí, Panama; Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 165, 1902—Costa Rica and Chiriquí (monog.); Carriker, Ann. Carnegie Mus., 6, p. 837, 1910—Costa Rica (Volcan de Turrialba, San Juan de Irazú, Las Vueltas de Dota, La Estrella de Cartago, Burgos de Irazú, Achióte de Póas, Volcan de Barba, Azahár de Cartago, "Cariblanco de Sarapiquí," and Ujurrás de Térraba; habits); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 279, 1910—Coliblanco and Volcan de Turrialba, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1088, 1912—Costa Rica and Chiriquí.

*Range.*—Subtropical zone of Costa Rica and extreme western Panama (Volcan de Chiriquí).<sup>1</sup>

31: Costa Rica (Coliblanco, 10; Volcan de Turrialba, 16; Volcan de Irazú, 5).

plumage very different by light brownish olive (instead of citrine) back, and grayish white (instead of olive-yellow) under parts with buffy brownish suffusion across chest and along sides and very conspicuous dusky striations on breast and upper abdomen.

The association of this species with *C. p. pileatus* on the volcanoes of Turrialba and Irazú is remarkable, and the theory of their being possibly color phases of the same thing has been advanced by Carriker. Without thorough investigations in the field the problem will be difficult to solve satisfactorily.

<sup>1</sup> Nine specimens from Boquete, Chiriquí, agree with those from Costa Rica.

**Chlorospingus pileatus diversus** Griscom.<sup>1</sup> EASTERN SOOTY-CAPPED CHLOROSPINGUS.

*Chlorospingus pileatus diversus* Griscom, Amer. Mus. Nov., 141, p. 11, 1924—Cerro Flores, eastern Chiriquí, Panama (type in the American Museum of Natural History, New York).

*Range*.—Subtropical zone of western Panama (Cerro Flores, eastern Chiriquí).

**Chlorospingus inornatus** (Nelson).<sup>2</sup> MOUNT PIRRI CHLOROSPINGUS.

*Hylospingus inornatus* Nelson, Smiths. Misc. Coll., 60, No. 3, p. 18, Sept., 1912—Mount Pirri, eastern Panama (type in U. S. National Museum).

*Chlorospingus inornatus* Griscom, Bull. Mus. Comp. Zool., 69, p. 190, 1929—Cana, Darien (crit.).

*Range*.—Tropical zone of Mount Pirri (alt. 2,600 to 4,200 ft.), Darien, eastern Panama.

**Chlorospingus flavovirens** (Lawrence).<sup>3</sup> YELLOW-GREEN CHLOROSPINGUS.

<sup>1</sup>*Chlorospingus pileatus diversus* Griscom: "Similar to *C. p. pileatus*, but yellow of under parts much deeper and brighter (bright yellowish green on chest and sides, changing to deep yellowish olive on flanks and under tail coverts); middle of breast and abdomen on the other hand much lighter, nearly white, less gray, giving a more contrasted effect." (Griscom, l.c.).

We are not acquainted with this form, which replaces the nominate race in eastern Chiriquí.

<sup>2</sup>*Chlorospingus inornatus* (Nelson): "Top and sides of the head including lores and suborbital area to angle of gape blackish slate color, darkest on forehead, lores, and below eyes; posterior part of crown becoming greenish and shading into the nearly olive green covering rest of upper parts, but becoming a little brighter greenish on edgings to wings and on rump; chin, throat, and breast dull gamboge yellow, a little paler on throat and darker and more greenish on breast; feathers of chin and throat marked with inconspicuous, small arrow-shaped black spots on tips as in some [other] species of *Chlorospingus*; sides of breast and flanks yellowish olive green shading into dull lemon yellow on abdomen; under tail coverts dull gamboge yellow; primaries dark slate except for greenish edges; tail olive green; bill blackish; feet dusky horn color. Wing (adult male), 82; tail, 66; culmen, 15; tarsus, 27." (Nelson, l.c.).

This species we have not seen. Griscom points out that there is no need for generic separation, since it agrees in structural details with *C. flavipectus*, *C. hypophaeus*, and others, which may well be kept in the genus *Chlorospingus*. In coloration, *C. inornatus* appears to present many similarities to *C. f. tacarcunae*, its chief distinctions being the blackish slate (instead of olive green) head and the dull lemon yellow (instead of grayish white) center of the belly. It is only known from two specimens, both taken on Mount Pirri at different altitudes.

<sup>3</sup>*Chlorospingus flavovirens* (Lawrence), in general form, resembles the *C. flavigularis* group, especially *C. f. hypophaeus*, though the bill is very slightly slenderer. The upper parts are olive green, somewhat more yellowish than in *hypophaeus*; the lores and subocular region much darker than in that bird, sooty rather than grayish white; auriculars darker green than the back; entire



*Buarremon flavovirens* Lawrence, Ann. Lyc. Nat. Hist. N. Y., 8, p. 467, 1867—Ecuador (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York, examined).

*Chlorospingus flavovirens* Sclater, Ibis, 1885, p. 274—Ecuador (crit.); idem, Cat. Bds. Brit. Mus., 11, p. 244, 1886—Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1092, 1143, 1912—Ecuador (crit.); Chapman, Bull. Amer. Mus. N. H., 55, p. 685, 1926—Ecuador (crit.); Griscom, Auk, 52, p. 94, 1935—Santo Domingo, Ecuador.

*Range*.—Western Ecuador (Santo Domingo).

### **Chlorospingus flavigularis hypophaeus** Sclater and Salvin.<sup>1</sup>

#### DRAB-BREASTED CHLOROSPINGUS.

*Chlorospingus hypophaeus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1868, p. 389—Calovévora, Veraguas, Panama (type in Salvin-Godman Collection, now in British Museum); Salvin, l.c., 1870, p. 188—Calovévora, Chitrá, and Boquete de Chitrá, Veraguas; Salvin and Godman, Biol. Centr.-Amer., Aves, 1, p. 317, pl. 22, fig. 3, 1884—same localities; Sclater, Cat. Bds. Brit. Mus., 11, p. 243, 1886—Veraguas (Calovévora, Chitrá); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 167, 1902—Veraguas (monog.); Bangs, Proc. New Engl. Zool. Cl., 3, p. 67, 1902—Caribbean slope of Volcan de Chiriquí, Panama.

*Chlorospingus flavigularis hypophaeus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1091, 1912—Panama (Chiriquí and Veraguas).

*Range*.—Upper Tropical zone of western Panama, from the Volcan de Chiriquí east to Veraguas (Calovévora, Chitrá, Boquete de Chitrá).

### **Chlorospingus flavigularis tacarcunae** Griscom.<sup>2</sup> MOUNT

#### TACARCUNA CHLOROSPINGUS.

under parts deep yellowish olive, brightest on the throat and becoming gradually duller towards the abdomen, tinged with greenish on the flanks; very small chin spot sooty; under tail coverts dull olive with buffy olive yellow edges; bill black, base of lower mandible more grayish. Wing, 86; tail, 62; tarsus, 19; bill, 13½.

The type of this very distinct species is a skin of the well-known "Quito" make. The British Museum has a specimen from Santo Domingo, in the Tropical zone of western Ecuador.

<sup>1</sup> *Chlorospingus flavigularis hypophaeus* Sclater and Salvin differs from *C. f. flavigularis* by paler grayish (nearly whitish) lores; more extensively buffy whitish chin; darker yellow throat; and especially by having the chest, sides, and flanks strongly washed with drab or dull buffy brown.

*Material examined*.—Panama: Volcan de Chiriquí, 2; Boquete de Chitrá, 2.

<sup>2</sup> *Chlorospingus flavigularis tacarcunae* Griscom: Nearest to *C. f. hypophaeus*, but chin yellow like the throat; breast yellowish green passing into bright olive green on the flanks and under tail coverts, center of lower breast and abdomen grayish white; lores darker, more brownish; size the same.

The yellowish green chest and the green flanks render this form easily recognizable from *C. f. hypophaeus*, in which these parts are dull drab or buffy brownish with some greenish only on the lower flanks. Yet inspection of two specimens from Tacarcuna tends to show that it is merely a strongly marked race of the Yellow-throated Chlorospingus.

*Chlorospingus tacarcunae* Griscom, Amer. Mus. Nov., 141, p. 11, 1924—Mount Tacarcuna, eastern Panama (type in the American Museum of Natural History, New York).

*Range*.—Upper Tropical zone of Mount Tacarcuna, head of Tuyra River, Darien, eastern Panama.

***Chlorospingus flavigularis marginatus* Chapman.<sup>1</sup> WESTERN YELLOW-THROATED CHLOROSPINGUS.**

*Chlorospingus flavigularis marginatus* Chapman, Bull. Amer. Mus. N. H., 33, p. 189, 1914—Buenavista, Nariño, western Andes, Colombia (type in the American Museum of Natural History, New York); idem, l.c., 36, p. 619, 1917—Cocal, Ricaurte, and Buenavista (Nariño), Colombia; idem, l.c., 55, p. 685, 1926—Mindó, above Naránjo, junction of Chanchan and Chiguancay rivers, Chimbo, Bucay, and La Chonta, Ecuador.

*Chlorospingus flavigularis* (not *Pipilopsis flavigularis* Sclater) Sclater, Proc. Zool. Soc. Lond., 26, p. 86, 1860—part, Nanegal, western Ecuador; idem, Cat. Coll. Amer. Bds., p. 89, 1862—part, spec. a, Nanegal; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 547—Chimbo, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 243, 1886—part, spec. d, e, "vicinity of Quito" and Nanegal, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—Gualea, Ecuador; Goodfellow, Ibis, 1901, p. 470—part, "males," Gualea, Milligalli, and Canzacota, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. 105, 1911—Santo Domingo, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1091, 1113, 1912—part, western Ecuador ("Quito," Chimbo, Gualea, Nanegal); Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—near Nanegal, Ecuador.

*Range*.—Tropical and lower Subtropical zones of southwestern Colombia (southern section of western Andes in State of Nariño) and western Ecuador.

**\**Chlorospingus flavigularis flavigularis* (Sclater). YELLOW-THROATED CHLOROSPINGUS.**

*Pipilopsis flavigularis* Sclater, Rev. Mag. Zool., (2), 4, p. 8, 1852—"Nouvelle Grenade"="Bogotá" (type in Paris Museum examined); idem, Contrib. Ornith., 1852, p. 131, pl. 98—New Granada (figure of type).

<sup>1</sup> *Chlorospingus flavigularis marginatus* Chapman: Nearest to *C. f. hypophaeus*, but upper parts brighter citrine; lores and subocular spot clearer grayish; chest and sides light grayish olive, at best with a faint brownish cast, instead of decidedly buffy brown or drab; under tail coverts brighter yellow; resembling *C. f. flavigularis* in the color of the upper parts, but much smaller; yellow of throat darker and restricted to the lateral portion; chest and sides of breast tinged with light grayish olive or brownish gray instead of being clear pale neutral gray; loreal spot much paler gray; remiges internally margined with buffy. Wing, 72-76, (female) 69-72; tail, 56-58, (female) 53-57.

*Material examined*.—Colombia: Buenavista, Nariño, 2.—Ecuador, Province of Imbabura: Río Verde, 2; Lita, 1; Gualea, Province of Pichincha, 3; Chimbo, Province of Guayas, 2.

*Chlorospingus flavigularis* Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—"Bogotá"; idem, l.c., 24, p. 91, 1856—"Bogotá" (monog.); idem, l.c., 28, p. 86, 1860—part, Rio Napo, Ecuador; idem, Cat. Coll. Amer. Bds., p. 89, 1862—part, spec. b, c, "Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1867, p. 750—Chyavetas, Peru; idem, l.c., 1873, p. 185—Cosnipata, Department of Cuzco, Peru; idem, l.c., 1873, p. 263—Chyavetas; idem, l.c., 1879, p. 602—Simacu, Yungas, Bolivia; Taczanowski, Orn. Pér., 2, p. 514, 1884—Peru (Chyavetas, Cosnipata); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Machay and Mapoto, Ecuador (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 243, 1886—part, spec. a-c, f-i, Colombia ("Bogotá"), Peru (Chyavetas, Cosnipata), and Bolivia (Simacu); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1091, 1912—part, Colombia ("Bogotá"), eastern Ecuador (Mapoto, Machay), and Peru (Chyavetas).

*Chlorospingus flavigularis parvirostris* Chapman, Bull. Amer. Mus. N. H., 14, p. 227, Sept., 1901—Inca Mine [=Santo Domingo], southeastern Peru (type in the American Museum of Natural History, New York); Berlepsch and Stolzmann, Orn. 13, pp. 82, 111, 1906—Idma (Urubamba) and Huaynapata (Marcapata), Peru; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1091, 1912—southeastern Peru ("Santa Ana," Cosnipata, Huaynapata) and Bolivia (Simacu, Chaco).

*Chlorospingus flavigularis brevirostris* (lapsus) Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 36 (in text), 1933.

*Chlorospingus flavigularis flavigularis* Chapman, Bull. Amer. Mus. N. H., 36, p. 619, 1917—La Frijolera, La Palma, Andalucia, Monteredondo, and Buena Vista, Colombia; idem, Bull. U. S. Nat. Mus., 117, p. 122, 1921—Idma and San Miguel Bridge, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 685, 1926—eastern Ecuador (Guayaba, Zamora, Macas region, below San José, lower Sumaco).

*Range*.—Subtropical zone of the eastern and central Andes of Colombia south through eastern Ecuador and eastern Peru to western Bolivia (Simacu and Chaco, Yungas of La Paz).<sup>1</sup>

1: Peru (Pozuzo, Huánuco, 1).

## *Chlorospingus flavigularis huallagae* Carriker.<sup>2</sup> HUALLAGA CHLOROSPINGUS.

<sup>1</sup> Birds from southeastern Peru and Bolivia generally have the upper parts slightly darker green and the yellow of the throat more extensive, while the bills are frequently rather smaller. All these trifling differences, however, are so completely bridged by individual variation that I agree with Chapman in considering *parvirostris* as not worthy of recognition. The color of the throat, independent of locality, varies from lemon yellow to orange yellow.

*Material examined*.—Colombia: "Bogotá," 6.—Eastern Ecuador: Alpayacu, Rio Pastaza, 1; Machay, 2; Mapoto, 2; San José, 2.—Peru: Idma, Urubamba, 2; Marcapata (alt. 3,000 ft.), 15; Huaynapata, Marcapata, 1.—Bolivia: Chaco, Department of La Paz, 1.

<sup>2</sup> *Chlorospingus flavigularis huallagae* Carriker: Said to differ from *C. f. flavigularis* by darker olive upper parts, dark olive (not dark ashy) loreal spot, much

*Chlorospingus flavigularis huallagae* Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 36, 1933—Utcubamba, Department of Libertad, Peru (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Northern Peru, in Department of Libertad (Utcubamba; Rio Jelashte).

**\*Chlorospingus flavo-pectus flavo-pectus (Lafresnaye).**

YELLOW-BREASTED CHLOROSPINGUS.

*Arremon flavo-pectus* Lafresnaye, Rev. Zool., 3, p. 227, 1840—Santa Fé de Bogotá, Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 413, 1930).

*Tachyphonus flavopectus* Lafresnaye, Rev. Zool., 11, p. 11, 1848—Bogotá (descr.).

*Pipilopsis flavipectus* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Santa Fé de Bogotá.

*Chlorospingus flavipectus* Cabanis, Mus. Hein., 1, p. 139, 1851—Bogotá; Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 90, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 89, 1862—Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 503, pl. 42, fig. 6 (egg)—Retiro, Concordia, and Santa Elena, Colombia (eggs descr.); Salvin, Cat. Strickl. Coll., p. 197, 1882—Bogotá; Sclater, Cat. Bds. Brit. Mus., 11, p. 242, 1886—Colombia (Bogotá, Santa Elena, Retiro, Medellín) and "Ecuador (Jima)"; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1090, 1912—Colombia (Bogotá, Retiro, Medellín) and "Ecuador (Jima)"; Piguet, Mém. Soc. Neuchât. Sci. Nat., 5, p. 809, 1914—Medellin, Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 618, 1917—El Roble, eastern Andes of Colombia.

*Range*.—Subtropical zone of the eastern Andes of Colombia.<sup>1</sup>

1: Colombia ("Bogotá," 1).

**Chlorospingus flavo-pectus phaeocephalus Sclater and Salvin.<sup>2</sup>**

WESTERN YELLOW-BREASTED CHLOROSPINGUS.

darker gray breast and abdomen, and by having the gular area deeper, orange yellow rather than lemon yellow, and centrally indented.

We are not acquainted with this race; but as all of the characters, notably the orange yellow throat, occasionally occur in the range of typical *flavigularis*, more information seems to be required regarding its status as well as its rather singular geographical distribution.

<sup>1</sup> We have examined only twelve native "Bogotá" skins. The locality "Jima" (ex Buckley) must be erroneous, since Ecuador is tenanted by the next form (*C. f. phaeocephalus*).

<sup>2</sup> *Chlorospingus flavo-pectus phaeocephalus* Sclater and Salvin differs from the nominate race by buffy brownish throat and duller, more greenish pectoral band and sides of the body. The variability in the color of the throat and breast clearly indicates that this form is merely a race of *flavo-pectus*. Goodfellow's so-called females of *C. flavigularis* pertain to the present species.

*Material examined*.—Western Ecuador: Mindo, 1; Gualea, 1; Cayandede, 5; "Quito," 2.



*Chlorospingus phaeocephalus* Sclater and Salvin, Proc. Zool. Soc. Lond., 1877, p. 521, pl. 52, fig. 2—"Jina" [=Jima] and Chillanes, Ecuador (type, from Jima, in the British Museum); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 290—Surupata, Cayandeled, and Chimbo, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 243, 1886—Chillanes and "Jima," Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B. 104, 1911—Gualea and Mindo, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1091, 1912—western Ecuador ("Quito," Chimbo, Chillanes, Jima, Gualea, Mindo, Surupata, Cayandeled); Chapman, Bull. Amer. Mus. N. H., 55, p. 684, 1926—El Chiral, Zaruma, Salvias, and lower Sumaco, Ecuador.

*Chlorospingus albitemporalis* (not *Tachyphonus albitempora* Lafresnaye) Sclater, Cat. Coll. Amer. Bds., p. 89, 1862—part, spec. c, Chillanes, Ecuador.

*Chlorospingus flavigularis* (not *Pipilopsis flavigularis* Sclater) Goodfellow, Ibis, 1901, p. 470—part, descr. of "female," Gualea, Milligalli, and Canzacota, western Ecuador.

*Range*.—Subtropical zone of western and eastern Ecuador.

**Chlorospingus flavo-pectus peruvianus** Carriker.<sup>1</sup> PERUVIAN YELLOW-BREASTED CHLOROSPINGUS.

*Chlorospingus flavipectus peruvianus* Carriker, Proc. Acad. Nat. Sci. Phila., 85, p. 35, 1933—Oconeque, Department of Puno, Peru (type in the Academy of Natural Sciences, Philadelphia).

*Range*.—Subtropical zone of southeastern Peru, in Department of Puno (Oconeque; Santo Domingo).

**\*Chlorospingus canigularis olivaceiceps** Underwood.<sup>2</sup> OLIVE-HEADED CHLOROSPINGUS.

*Chlorospingus olivaceiceps* Underwood, Bull. Brit. Orn. Cl., 5, p. lix, 1898—Carrillo, Costa Rica (type in the British Museum); Ridgway, Bull. U. S. Nat. Mus., 50, Part 2, p. 166, 1902—Carrillo; Carriker, Ann. Carnegie Mus., 6, pp. 323, 838, 1910—eastern Costa Rica (Guayábo, Carrillo, and Volcan de Turrialba; descr.); Ferry, Field Mus. Nat. Hist., Orn. Ser., 1, p. 279, 1910—Guayábo, Costa Rica; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1091, 1912—Carrillo, Costa Rica.

*Range*.—Subtropical zone of Caribbean Costa Rica (Carrillo, Guayábo, Volcan de Turrialba).

2: Costa Rica (Guayábo, 2).

<sup>1</sup>*Chlorospingus flavo-pectus peruvianus* Carriker: "Similar to *C. f. flavo-pectus*, but yellow pectoral band brighter; throat even paler with more dusky freckling, especially posteriorly and on lateral portion; breast slightly flammulated with ashy; flanks darker, more greenish; size smaller. Wing, 63–68, (female) 63–65; tail, 59–64, (female) 58–60." (Carriker, l.c.).

<sup>2</sup>*Chlorospingus canigularis olivaceiceps* Underwood: Similar in form and proportions to *C. c. canigularis*, but readily distinguished by having the top of the head bright citrine like the back instead of neutral gray. Besides, the auriculars are decidedly tinged with olivaceous, and the pectoral band is slightly duller, more greenish yellow, while wings and tail appear to be rather longer. Wing (male), 73–77; tail, 58–62.

\***Chlorospingus canigularis canigularis** (Lafresnaye). ASHY-THROATED CHLOROSPINGUS.

*Tachyphonus canigularis* Lafresnaye, Rev. Zool., 11, p. 11, 1848—"ad Bogotam in Colombia" (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 413, 1930).

*Hemispingus veneris* Bonaparte, Compt. Rend. Acad. Sci. Paris, 37, p. 922, 1853—no locality indicated (the type in the Paris Museum is from "Bogotá," Colombia); idem, Not. Orn. Coll. Delattre, p. 22, 1854 (reprint).

*Pipilopsis canigularis* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Colombia (diag.).

*Chlorospingus canigularis* Cabanis, Mus. Hein., 1, p. 139, 1851—Colombia; Selater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 90, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 89, 1862—part, spec. b, Bogotá; Salvin, Cat. Strickl. Coll., p. 197, 1882—Bogotá; Selater, Cat. Bds. Brit. Mus., 11, p. 242, 1886—part, spec. a-c, Bogotá, Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1091, 1912—part, Colombia (Bogotá); Chapman, Bull. Amer. Mus. N. H., 36, p. 619, 1917—part, Miraflores, Salento, La Candela, near San Agustín, Fusugasugá, and Subia, central and eastern Andes, Colombia.

*Range*.—Subtropical zone of the central and eastern Andes of Colombia.<sup>1</sup>

3: Colombia (east of Palmira, Cauca, 1; Salento, west Quindío Andes, Cauca, 1; "Bogotá," 1).

**Chlorospingus canigularis conspicillatus** Todd.<sup>2</sup> WESTERN ASHY-THROATED CHLOROSPINGUS.

*Chlorospingus canigularis conspicillatus* Todd, Proc. Biol. Soc. Wash., 35, p. 93, 1922—Bitaco Valley, western Andes, Colombia (type in Carnegie Museum).

*Chlorospingus canigularis* (not *Tachyphonus canigularis* Lafresnaye) Selater, Proc. Zool. Soc. Lond., 27, p. 138, 1859—Pallatanga, Ecuador; idem, Cat. Coll. Amer. Bds., p. 89, 1862—part, spec. a, Pallatanga; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1883, p. 547—Chimbo, Ecuador; Selater, Cat. Bds. Brit. Mus., 11, p. 242, 1886—part, spec. d, e, Pallatanga; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1091, 1912—part,

<sup>1</sup> Additional material examined.—Colombia: "Bogotá," 12; Fusugasugá, 2.

<sup>2</sup> *Chlorospingus canigularis conspicillatus* Todd: Exceedingly close to *C. c. canigularis*, but yellowish pectoral band slightly deeper in tone and somewhat wider; olive green of the sides more extended; size slightly larger. Wing (males), 74–78; tail, 63–65.

The racial characters are not very pronounced in the limited material at my command, but Mr. Todd, who has evidently seen good series, believes the western form to be separable. Two specimens from Chimbo agree with two others from San Antonio, Colombia, while one from Pullango, Ecuador, which we have seen in the American Museum of Natural History, has a distinct white postocular streak, thus forming the transition to *C. c. signatus*.

western Ecuador (Pallatanga, Chimbo); Chapman, Bull. Amer. Mus. N. H., 36, p. 619, 1917—part, San Antonio, Cerro Munchique, Gallera, and La Florida, western Andes, Colombia.

*Chlorospingus canigularis canigularis* Chapman, Bull. Amer. Mus. N. H., 55, p. 684, 1926—Rios Coco and Chimbo, La Chonta, Las Piñas, and Pullango, Ecuador.

*Range*.—Subtropical zone of western Ecuador and of the western Andes of Colombia.

***Chlorospingus canigularis signatus* Taczanowski and Berlepsch.<sup>1</sup>**  
EAST ECUADORIAN ASHY-THROATED CHLOROSPINGUS.

*Chlorospingus signatus* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 82—Machay and Mapoto, eastern Ecuador (type, from Machay, in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 191, 1927); Sclater, Cat. Bds. Brit. Mus., 11, p. 241, 1886—Mapoto; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1090, 1912—eastern Ecuador (Machay, Mapoto); Chapman, Bull. Amer. Mus. N. H., 55, p. 684, 1926—eastern Ecuador (Guayábo, Rio Zamora; below Oyacachi; lower Sumaco) and northwestern Peru (Chaupe).

*Range*.—Subtropical zone of eastern Ecuador and northwestern Peru (Chaupe).

***Chlorospingus semifuscus semifuscus* Sclater and Salvin.**  
DUSKY-BELLIED CHLOROSPINGUS.

*Chlorospingus semifuscus* Sclater and Salvin, Nomencl. Av. Neotrop., pp. 24, 157, 1873—"Aequatoria occ. in vicin. urbis Quito" (type in Salvin-Godman Collection, now in the British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 244, 1886—"Quito," Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—Nanegal, Ecuador; Goodfellow, Ibis, 1901, p. 469—both sides of the Andes at altitudes of from 7,000 to 11,500 feet, Ecuador; Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B. 105, 1911—Palmito, Nanegal, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1092, 1912—Ecuador (Quito, Nanegal, Palmito, "Papallacta"); Chapman, Bull. Amer. Mus. N. H., 36, p. 620, 1917—Nóvita Trail and Cocal, western Andes of Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—below Calacali and below Nono, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 686, 1926—Gualea, Nono, and Mindo, Ecuador.

*Range*.—Subtropical zone of western Ecuador and of the western Andes of Colombia.<sup>2</sup>

<sup>1</sup>*Chlorospingus canigularis signatus* Taczanowski and Berlepsch: Similar to *C. c. conspicillatus* in extent and color of the yellow pectoral band, but auriculars darker, nearly blackish, and surmounted by a conspicuous white postocular stripe; crown rather darker gray; white abdominal zone laterally darker grayish, etc. Wing, 74–78, (female) 65; tail, 59–62, (female) 52.

*Material examined*.—Eastern Ecuador: Machay, 1; Mapoto, 2.

<sup>2</sup>All definite records being from western Ecuador, I cannot help thinking that Goodfellow is mistaken in asserting that he shot two specimens at Papallacta.

*Material examined*.—Western Ecuador: "Quito," 2; Gualea, 2; Palmito, Nanegal, 2; below Nono, 3.

**Chlorospingus semifuscus cinereocephalus** Taczanowski.<sup>1</sup>  
GRAY-HEADED CHLOROSPINGUS.

*Chlorospingus cinereocephalus* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 132—Chilpes, Department of Junín, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 191, 1927); idem, l.c., 1874, p. 516—Chilpes; idem, Orn. Pér., 2, p. 515, 1884—Chilpes; Sclater, Cat. Bds. Brit. Mus., 11, p. 244, 1886—Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 346—Tambo de Aza, Maraynioc, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1092, 1912—Peru (Chilpes; Tambo de Aza, Maraynioc).

*Range*.—Subtropical zone of central Peru, in Department of Junín (Chilpes; Tambo de Aza, below Maraynioc).

Genus **CNEMOSCOPUS** Bangs and Penard<sup>2</sup>

*Cnemoscopus* Bangs and Penard, Bull. Mus. Comp. Zool., 43, p. 38, 1919—type, by orig. desig., *Arremon rubrirostris* Lafresnaye.

\***Cnemoscopus rubrirostris rubrirostris** (Lafresnaye). RED-BILLED CNEMOSCOPUS.

*Arremon rubrirostris* Lafresnaye, Rev. Zool., 3, p. 227, 1840—Santa Fé de Bogotá, Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 414, 1930).

*Pipilopsis rubrirostris* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Santa Fé de Bogotá.

*Hemispingus rubrirostris* Cabanis, Mus. Hein., 1, p. 138, 1851 (ex Lafresnaye); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—Colombia (Bogotá, Santa Elena, Medellín) and Ecuador ("Santa Rita," Oyacachi, Papallacta); Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B. 105, 1911—Oyacachi, Ecuador; Chapman, Bull. Amer. Mus. N. H., 36, p. 620, 1917—Paramillo Trail, Almaguer, above Salento, Laguneta, Santa Elena, and El Roble, Colombia.

*Chlorospingus rubrirostris* Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 92, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 89, 1862—Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 504—Santa Elena, Colombia (eggs descr.); Salvin, Cat. Strickl. Coll., p. 197, 1882—Bogotá; Sclater, Cat. Bds. Brit. Mus., 11,

<sup>1</sup> *Chlorospingus semifuscus cinereocephalus* Taczanowski: Similar to *C. s. semifuscus*, but considerably smaller with shorter bill; top of the head paler brownish gray; throat and foreneck buffy; middle of breast and abdomen dingy (grayish) white; flanks and under tail coverts more yellowish green. Wing (female), 64; tail, 54; bill, 11½.

*Material examined*.—Peru: Tambo de Aza (alt. 8,000 ft.), below Maraynioc Department of Junín, 1.

<sup>2</sup> Genus *Cnemoscopus* Bangs and Penard: Similar to *Hemispingus*, but with decidedly shorter tarsus and proportionately much longer wings; coloration quite different, suggesting that of the genus *Eucometis*.



p. 246, 1886—Colombia (Bogotá, Medellín, Santa Elena) and Ecuador (“Santa Rita”); Goodfellow, Ibis, 1901, p. 469—Papallacta, eastern Ecuador; Berlioz, Bull. Mus. Hist. Nat. Paris, (2), 4, p. 241, 1932—Escuilla, eastern Ecuador.

*Cnemoscopus rubrirostris* Chapman, Bull. Amer. Mus. N. H., 55, p. 686, 1926—eastern Ecuador (below Papallacta, above Baeza, Oyacachi, upper Sumaco).

*Range*.—Temperate and upper Subtropical zones of Colombia (except Santa Marta region) and eastern Ecuador.<sup>1</sup>

7: Colombia (“Bogotá,” 1; Páramo de Tamá, Santander, 4; west Quindío, above Salento, Cauca, 1; Almaguer, central Andes, Cauca, 1).

### ***Cnemoscopus rubrirostris chrysogaster* (Taczanowski).<sup>2</sup>**

#### GOLDEN-BELLIED CNEMOSCOPIUS.

*Chlorospingus chrysogaster* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 517—Tambapota, Department of Junín, Peru (descr. of female; type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 187, 1927); idem, Orn. Pér., 2, p. 515, 1884—Tambapota; Sclater, Cat. Bds. Brit. Mus., 11, p. 246, 1886—Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 346—Maraynioc, Peru (crit., meas.).

*Hemispingus chrysogaster* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—Peru (Tambapota, Maraynioc, “Puyascu”).

*Range*.—Subtropical and Temperate zones of central Peru, in Department of Junín (Tambapota; Puyas-Yacu, below Maraynioc).

### Genus HEMISPINGUS Cabanis

*Hemispingus* Cabanis, Mus. Hein., 1, p. 138, October, 1851—type, by orig. desig., *Arremon superciliaris* Lafresnaye.

*Sphenopsis* Sclater, Proc. Zool. Soc. Lond., 1861, p. 379—type, by monotypy, *Sphenopsis ignobilis* Sclater.

*Sphenops* Sclater, Cat. Coll. Amer. Bds., p. 160, 1862—emendation.

*Dacnidea* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 131—type, by monotypy, *Dacnidea leucogastra* Taczanowski.

*Orospingus* Riley, Proc. Biol. Soc. Wash., 35, p. 61, 1922—type, by orig. desig., *Chlorospingus goeringi* Sclater and Salvin.

<sup>1</sup> Some of the Ecuadorian specimens, by slightly larger size and darker bills, form the passage to the Peruvian *C. r. chrysogaster*. The locality “Santa Rita” (in the Tropical zone of western Ecuador), attached to some of Buckley’s skins, is undoubtedly erroneous.

*Additional material examined*.—Colombia: Bogotá, 12; Santa Elena, 2.—Eastern Ecuador: near Papallacta, 3; Oyacachi, 1; “Quito,” 3.

<sup>2</sup> *Cnemoscopus rubrirostris chrysogaster* (Taczanowski): Similar to the nominate race, but larger; bill and legs dark horn color instead of reddish; breast and abdomen brighter (clearer) yellow, etc. Wing, 91, (female) 80; tail, 72, (female) 64; bill, 12.

*Material examined*.—Peru: Puyas-Yacu (alt. 8,000 ft.), Department of Junín, 2.

**\*Hemispingus atro-pileus atro-pileus (Lafresnaye). BLACK-CAPPED HEMISPINGUS.**

*Arremon atro-pileus* Lafresnaye, Rev. Zool., 5, p. 335, 1842—"Bolivie"—Colombia, Bogotá (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 413, 1930).

*Pipilopsis atripileus* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Santa Fé de Bogotá (diag.).

*Chlorospingus atripileus* Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 91, 1856—Bogotá and vicinity of Quito (monog.); idem, l.c., 28, pp. 76, 86, 1860—Lloa and above Puellarro, Ecuador; idem, Cat. Coll. Amer. Bds., p. 89, 1862—New Granada and Lloa, Ecuador; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 504—Medellin and Santa Elena, Colombia; Salvin, Cat. Strickl. Coll., p. 197, 1882—Bogotá; Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—San Rafael, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 245, 1886—Colombia (Bogotá, Medellín) and Ecuador (Lloa, Jima); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—Pun and "Gualea," Ecuador; Goodfellow, Ibis, 1901, p. 469—west side of Pichincha.

*Hemispingus atripileus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1092, 1912—Colombia (Bogotá, Medellín) and Ecuador (Lloa, Jima, Quito, San Rafael).

*Hemispingus atopileus* Chapman, Bull. Amer. Mus. N. H., 36, p. 620, 1917—Andes west of Popayán, Cocal, above Salento, Laguneta, and Choachi, Colombia; Berlioz, Bull. Mus. Hist. Nat. Paris, 34, p. 75, 1928—Pilon, Ecuador.

*Hemispingus atopileus atopileus* Chapman, Bull. Amer. Mus. N. H., 55, p. 686, 1926—above Baeza, Oyacachi, and upper Sumaco, Ecuador.

(?) *Hemispingus atripileus chlorigaster* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1092, 1143, 1912—Antioquia, Colombia (type in Berlepsch Collection, now in Frankfurt Museum, examined).

*Range.*—Temperate zone of (?) western Venezuela (Cordillera of Mérida), Colombia (except Santa Marta region) and Ecuador.<sup>1</sup>

9: Colombia (Páramo de Tamá, 7; "Bogotá," 2).

<sup>1</sup> Birds from Ecuador appear to be inseparable from those of Colombia. Berlepsch described a single trade-skin from somewhere in Antioquia (presumably in the western Andes, since the same lot, among others, contained *Oreothraupis arremonops* and *Enlomodestes coracinus*) as *H. a. chlorigaster* on account of its darker, more saturated under parts. The type certainly is darker beneath than any other bird I have seen (in size it does not differ from certain individuals), but as authentic specimens from the western and central Andes of Colombia in the American Museum of Natural History show no tangible divergencies from others taken in the Bogotá region, it is hard to believe that it is anything but an individual mutant, unless it represents a local form of very restricted distribution. We have not seen any Venezuelan material.

*Additional material examined.*—Colombia: Bogotá, 11; Choachi, 3; Laguneta, central Andes, 2; Cocal, western Andes, 1.—Ecuador: "Quito," 3; Rio Yambi, 1; Pichincha, 1; Pun, 1.

**Hemispingus atro-pileus auricularis** Cabanis.<sup>1</sup> PERUVIAN  
BLACK-CAPPED CHLOROSPINGUS.

*Chlorospingus (Hemispingus) auricularis* Cabanis, Journ. Orn., 21, p. 318, 1873—Peru, locality not specified (type, from Maraynioc, formerly in Warsaw Museum [teste Taczanowski, Warsz. Uniwers. Izv., 1889, No. 4, p. 28], now lost; cf. Sztoleman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 187, 1927).

*Hemispingus auricularis* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 516—Maraynioc, Paltaypampa, and Sillapata, Peru (nest and eggs descr.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—Peru (same localities).

*Chlorospingus auricularis* Taczanowski, Orn. Pér., 2, p. 519, 1884—Peru (Maraynioc, Paltaypampa, Sillapata); Sclater, Cat. Bds. Brit. Mus., 11, p. 245, 1886—Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 345—Maraynioc.

*Hemispingus atropileus auricularis* Chapman, Bull. U. S. Nat. Mus., 117, p. 122, 1921—Occobamba Valley, Urubamba, Peru.

*Range*.—Humid Temperate zone of southern Peru, in departments of Junín (Maraynioc, Paltaypampa, Sillapata) and Cuzco (Occobamba Valley).<sup>2</sup>

**Hemispingus atro-pileus calophrys** (Sclater and Salvin).<sup>3</sup>  
ORANGE-BROWED HEMISPINGUS.

*Chlorospingus calophrys* Sclater and Salvin, Proc. Zool. Soc. Lond., 1876, p. 354—Tilotilo, Yungas (of La Paz), Bolivia (type in Salvin-Godman Collection, now in British Museum); idem, l.c., 1879, p. 602—Tilotilo; Sclater, Cat. Bds. Brit. Mus., 11, p. 245, 1886—Tilotilo.

*Hemispingus calophrys* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—Bolivia (Tilotilo, Cillutincara, Sandillani, Unduavi)

*Range*.—Humid Temperate zone of Bolivia (Department of La Paz).

<sup>1</sup> *Hemispingus atro-pileus auricularis* Cabanis: Very similar to *H. a. atropileus* but slightly smaller sex for sex; black color on the sides of the head more extensive, occupying the whole of the cheeks, subocular region, and auriculars, and like that of the crown deeper in tone; buffy white superciliaries not reaching the base of the bill; throat and foreneck more strongly tinged with yellow ocher, etc. Wing (male), 76-78; tail, 73-75.

*Material examined*.—Peru: Maraynioc, Department of Junín, 3.

<sup>2</sup> A race intermediate between *H. a. auricularis* and *H. a. atropileus* has been described from northern Peru (Llúí and Leimabamba, Department of Libertad) as *H. a. intermedius* Carriker (Proc. Acad. Nat. Sci. Phila., 86, p. 331, 1934).

<sup>3</sup> *Hemispingus atro-pileus calophrys* (Sclater and Salvin): Agreeing with *H. a. auricularis* in large extent of black on sides of head, but superciliaries, throat, and foreneck bright ochraceous-orange.

*Material examined*.—Bolivia: Cillutincara, 2; Sandillani, 1; Unduavi, 1.

**\*Hemispingus superciliaris superciliaris (Lafresnaye). GRAY-FRONTED HEMISPINGUS.**

*Arremon superciliaris* Lafresnaye, Rev. Zool., 3, p. 227, 1840—Santa Fé de Bogotá, Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 413, 1930).

*Pipilopsis superciliaris* Bonaparte, Consp. Gen. Av., 1, (2), p. 485, 1850—Santa Fé de Bogotá.

*Hemispingus superciliaris* Cabanis, Mus. Hein., 1, p. 138, 1851—Colombia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—part, Colombia (Bogotá) and northern Peru (Tambillo, Cutervo, Paucal).

*Chlorospingus superciliaris* Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 92, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 90, 1862—part, spec. b, c, Bogotá; Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 229—Tambillo, Peru; idem, l.c., 1880, p. 195—Callacate, Peru; idem, Orn. Pér., 2, p. 517, 1884—Peru (Tambillo, Cutervo, Paucal); Salvin, Cat. Strickl. Coll., p. 197, 1882—Bogotá; Sclater, Cat. Bds. Brit. Mus., 11, p. 246, 1886—part, subsp. *typica*, Bogotá.

*Hemispingus superciliaris* Chapman, Bull. Amer. Mus. N. H., 36, p. 621, 1917—Palo Hueco and Cundinamarca, eastern Andes, Colombia.

*Hemispingus superciliaris superciliaris* Chapman, Bull. Amer. Mus. N. H., 55, p. 687, 1926—southwestern Ecuador (Salvias, Taraguacocho) and Peru (El Tambo) (crit.).

*Chlorospingus superciliaris nigrifrons* (not of Lawrence) Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—San Rafael, eastern Ecuador.

*Chlorospingus nigrifrons* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—part, Papallacta, eastern Ecuador.

*Hemispingus superciliaris nigrifrons* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—part, San Rafael and Papallacta, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 687, 1926—part, eastern Ecuador (Zuna, Rio Upano; upper Sumaco).

*Range*.—Humid Temperate zone of the eastern Andes of Colombia, eastern and extreme southwestern Ecuador, and northwestern Peru.<sup>1</sup>

2: Colombia ("Bogotá," 2).

<sup>1</sup> A large series from "Bogotá" is very uniform in the neutral gray coloration of the anterior crown, and two birds from northwestern Peru do not appreciably differ. Two adults from above Baños, while very slightly darker than many Bogotá skins, can be matched by others, and appear to be much nearer to *superciliaris* than to *nigrifrons*. I am, therefore, inclined to refer east Ecuadorian birds to the nominate race, whereby the anomaly in distribution alluded to by Chapman is disposed of.

A single adult from Cocapata, Department of La Paz, Bolivia, closely resembles *H. s. superciliaris* with the exception of having the posterior portion of the superciliary streak tinged with yellow. Berlepsch (Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1093, 1143, 1912) noticed the same peculiarity in specimens from Bolivia



**Hemispingus superciliaris nigrifrons** (Lawrence).<sup>1</sup> SOOTY-FRONTED HEMISPINGUS.

*Chlorospingus nigrifrons* Lawrence, Ibis, (3), 5, p. 384, 1875—Ecuador (type in coll. of Geo. N. Lawrence, now in the American Museum of Natural History, New York); Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 290—Cechece, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—part, western Ecuador (El Troje, Huaca; Nanegal; Chinguil (Lloa); Frutillas; Niebli); Goodfellow, Ibis, 1901, p. 469—Milligalli, Gualea, and Mindo.

*Chlorospingus superciliaris* (not *Arremon superciliaris* Lafresnaye) Sclater, Proc. Zool. Soc. Lond., 28, pp. 65, 86, 1860—Chillanes and Nanegal, Ecuador; idem, Cat. Coll. Amer. Bds., p. 90, 1862—part, spec. a, Ecuador.

[*Chlorospingus superciliaris*] subsp. *nigrifrons* Sclater, Cat. Bds. Brit. Mus., 11, p. 247, 1886—Ecuador (Sical, Jima).

*Hemispingus superciliaris nigrifrons* Ménégau, Miss. Serv. Géogr. Armée Mes. Arc Mérid. Equat., 9, p. B. 105, 1911—Lloa; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1093, 1912—part, western Ecuador ("Quito," Sical, Jima, Frutillas, Milligalli, Gualea, Mindo, Nanegal, Lloa, Chillanes, Cechece); Chapman, Bull. Amer. Mus. N. H., 36, p. 621, 1917—Valle de las Pappas, Laguneta, and Santa Isabel, central Andes of Colombia; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—below Lloa, Calacali, and Nono, Ecuador; Chapman, Bull. Amer. Mus. N. H., 55, p. 687, 1926—western Ecuador (Pagma Forest, Hacienda Garzón, Mojanda Mountains, Yanacocha, Verdecocha, above Gualea, "Quito"); Berlioz, Bull. Mus. Hist. Nat. Paris, 28, p. 75, 1928—Curubi, Ecuador; idem, l.c., (2), 4, p. 627, 1932—Las Palmas and El Portete de Tarquí, Ecuador.

*Range*.—Humid Temperate zone of the central Andes of Colombia and of western Ecuador, south to Province of Azuay (Cuenca region).

**\*Hemispingus reyi** (Berlepsch).<sup>2</sup> REY'S HEMISPINGUS.

(Cocapata, Sandillani), which may thus prove to be separable, together with the inhabitants of southeastern Peru (Occobamba and above Torontoy, Urubamba) recorded by Chapman (Bull. U. S. Nat. Mus., 117, p. 122, 1921), as *H. superciliaris nigrifrons*.

<sup>1</sup> *Hemispingus superciliaris nigrifrons* (Lawrence) merely differs from the nominate race by having the anterior crown darker, sooty to blackish. This character being often less pronounced in the females, caution must be used in allocating unsexed birds of uncertain origin. All the (fourteen) specimens seen of this form are from the northwestern section of Ecuador (Quito region and Pichincha), but according to Chapman the inhabitants of the central Andes of Colombia, notwithstanding considerable variation, belong likewise here. Berlioz refers specimens from the Cuenca region (Las Palmas, Portete de Tarquí) to *nigrifrons*, while those from extreme southwestern Ecuador (Zaruma region, Province of El Oro) are identified by Chapman as being typical *superciliaris*.

<sup>2</sup> *Hemispingus reyi* (Berlepsch): Nearly allied to *H. s. superciliaris*, but differs by lacking the white superciliaries; more yellowish green upper parts; deeper yellow ventral surface; by having the gray cap extended over the whole pileum, etc. Wing, 66–68; tail, 62–65; bill, 13.

This little-known species inhabits the Cordillera of Mérida, but its altitudinal range and zonal distribution remain to be determined. It is probably a geo-

*Chlorospingus reyi* Berlepsch, Ibis, (5), 3, p. 288, 1885—Mérida, Venezuela (type in coll. of H. von Berlepsch, now in Frankfort Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 247, 1886—Mérida.

*Hemispingus reyi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—Andes of Mérida, Venezuela.

*Range*.—Cordillera of Mérida, western Venezuela.

2: Venezuela (Conejos, 1; Nevados, Mérida, 1).

\***Hemispingus chrysophrys** (Sclater and Salvin).<sup>1</sup> YELLOW-BROWED HEMISPINGUS.

*Chlorospingus chrysophrys* Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, pp. 234, 235—Mérida, Venezuela (type in coll. of P. L. Sclater, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 247, 1886—Mérida.

*Hemispingus chrysophrys* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—Andes of Mérida.

*Chlorospingus xanthophrys* (not of Sclater, 1856) Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, p. 780—Mérida.

*Range*.—Cordillera of Mérida, western Venezuela.

6: Venezuela (Escorial, Mérida, 3; La Cuchilla, Mérida, 1; La Culata, Mérida, 1; Nevados, Mérida, 1).

\***Hemispingus frontalis frontalis** (Tschudi). OLEAGINEOUS HEMISPINGUS.

*Hylophilus frontalis* Tschudi, Arch. Naturg., 10, (1), p. 284, 1844—Peru (type in Neuchâtel Museum examined); idem, Unters. Faun. Peru., Aves, p. 194, pl. 13, fig. 1, 1846—east slope of Peruvian Andes, probably in Department of Junín; Berlepsch and Hellmayr, Journ. Orn., 53, p. 8, 1905 (crit. note on type).

*Chlorospingus oleagineus* Sclater, Proc. Zool. Soc. Lond., 1862, p. 110—"Bogotá," Colombia (type in coll. of P. L. Sclater, now in British Museum, examined); idem, Cat. Coll. Amer. Bds., p. 359, 1862—"Bogotá"; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 517—Pumamarca, Department of Junín, Peru; idem, l.c., 1879, p. 229—Tambillo, Peru; idem, Orn. Fér., 2, p. 516, 1884—Peru (Pumamarca, Tambillo); idem and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 81—Machay, eastern Ecuador.

*Chlorospingus ignobilis* (not *Speopsis ignobilis* Sclater) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 504—Santa Elena, Colombia; Sclater, Cat. Bds. Brit. Mus., 11, p. 248, 1886—part, spec. e-g, Colombia (Bogotá, Santa Elena), Ecuador, and Peru.

graphical representative of *H. superciliaris*. Its resemblance in coloration to *Basileuterus griseiceps* is remarkable.

*Additional material examined*.—Venezuela: "Mérida," 2; El Escorial, Mérida, 1.

<sup>1</sup> *Hemispingus chrysophrys* (Sclater and Salvin) is readily recognizable from the preceding species by the bright yellow superciliaries and (like the back) light olive-green pileum.

Nothing is known about its range beyond its occurrence in the Cordillera of Mérida. Three specimens, all obtained by S. Briceño, have been examined.

*Chlorospingus frontalis* Taczanowski, Orn. Pér., 2, p. 517, 1884—Peru; Berlepsch and Hellmayr, Journ. Orn., 53, p. 8, 1905 (crit.); Berlepsch and Stolzmann, Ornith., 13, p. 83, 1906—Santa Ana, Urubamba, Peru.

*Hemispingus frontalis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—Peru (Pumamarca, Santa Ana).

*Hemispingus frontalis oleagineus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—Colombia ("Bogotá," Santa Elena), eastern Ecuador (Machay, "Quito"), and Peru (Tambillo); Chapman, Bull. Amer. Mus. N. H., 36, p. 621, 1917—Colombia (Gallera, Salento, Santa Elena, Rio Toché, El Eden, Aguadita, Subia).

*Hemispingus frontalis frontalis* Chapman, Bull. U. S. Nat. Mus., 117, p. 122, 1921—San Miguel Bridge, Urubamba, Peru; idem, Bull. Amer. Mus. N. H., 55, p. 688, 1926—eastern Ecuador (Baeza, Rio Sardinias, lower Sumaco).

*Range*.—Subtropical zone of eastern Peru (south to the Urubamba Valley), eastern Ecuador, and the whole of Colombia (except Santa Marta region).<sup>1</sup>

2: Colombia (Subia, near La Mesa, Cundinamarca, 2).

### *Hemispingus frontalis ignobilis* (Sclater).<sup>2</sup> VENEZUELAN OLEAGINEOUS HEMISPINGUS.

*Sphenopsis ignobilis* Sclater, Proc. Zool. Soc. Lond., 1861, p. 379—"Brazil," errore (type in coll. of P. L. Sclater, now in British Museum, examined).

*Sphenopsis ignobilis* Sclater, Cat. Coll. Amer. Bds., p. 160, 1862—South America.

*Chlorospingus ignobilis* Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 780, 784—Páramo of Mérida, Venezuela (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 248, 1886—part, spec. c, d, "South America" and Mérida, Venezuela.

*Chlorospingus frontalis ignobilis* Berlepsch and Hellmayr, Journ. Orn., 53, p. 9 (in text), 1905—part, Mérida (crit.).

*Hemispingus frontalis ignobilis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—Andes of Mérida, Venezuela; Chapman, Amer.

<sup>1</sup> I am quite unable to distinguish Colombian and Ecuadorian birds (*oleagineus*) from typical Peruvian skins. Dr. Chapman, who had far more comprehensive material, came to the same conclusion.

*Additional material examined*.—Peru: "Bogotá," 8; Calua, Cundinamarca, 1; Santa Elena, 1.—Ecuador: Machay, 1; unspecified, 2.—Peru: Tambillo, 1; Santa Ana, 1; unspecified, 1 (type of *H. frontalis*).

<sup>2</sup> *Hemispingus frontalis ignobilis* (Sclater): Similar to *H. f. frontalis*, but with well-defined superciliaries, ochraceous-orange above the lores and decidedly yellow posteriorly; under parts darker, yellow-ocher, especially on throat and foreneck, and more ochreous brown on the tail coverts. Wing (adult male), 75; tail, 70.

Specimens from the Cordillera of Mérida differ markedly from Bogotá skins by more ochreous under parts and the conspicuous ochraceous-orange superciliaries. The type of *S. ignobilis* (of unknown origin), although in rather poor condition, seems to agree better with Mérida birds than with one from Los Palmales (*iteratus*).

*Material examined*.—Venezuela, Cordillera of Mérida: El Valle (alt. 2,000 metr.), 1; Culata (alt. 4,000 metr.), 1; Páramo of Mérida, 1.—"South America," 1 (type of *Sphenopsis ignobilis*).

Mus. Nov., 191, p. 13, 1925—Venezuela (Guamito, Trujillo; Páramo de Rosas, Lara; La Cuchilla and Tabay, Mérida).

*Range*.—Subtropical and Temperate zones of western Venezuela, from Lara (Páramo de Rosas) to Mérida.

\****Hemispingus frontalis hanieli* Hellmayr and Seilern.<sup>1</sup> HANIEL'S HEMISPINGUS.**

*Hemispingus hanieli* Hellmayr and Seilern, Verh. Orn. Ges. Bay., 12, No. 1, p. 87, May, 1914—Galipán, Cerro del Avila, Federal District, Venezuela (type in Munich Museum); Hellmayr, Arch. Naturg., 90, A, Heft 2, p. 201, 1924—Galipán (Cerro del Avila), Loma Redonda, and Silla de Caracas, Venezuela.

*Hemispingus frontalis hanieli* Chapman, Amer. Mus. Nov., 191, p. 13, 1925—Galipán (Cerro del Avila) and Cotiza, near Caracas, Venezuela (crit.).

*Range*.—Subtropical zone of northern Venezuela, in Federal District (Galipán, Cerro del Avila; Loma Redonda; Cotiza, near Caracas; Silla de Caracas).

2: Venezuela (Galipán, Cerro del Avila, 1; Silla de Caracas, Federal District, 1).

***Hemispingus frontalis iteratus* Chapman.<sup>2</sup> TURUMIQUIRE HEMISPINGUS.**

*Hemispingus frontalis iteratus* Chapman, Amer. Mus. Nov., 191, p. 13, 1925—Carapas, Mount Turumiquire, northeastern Venezuela (type in the American Museum of Natural History, New York).

*Chlorospingus frontalis ignobilis* (not *Sphenopsis ignobilis* Sclater) Berlepsch and Hellmayr, Journ. Orn., 53, p. 9 (in text), 1905—part, "Cumaná" [=Los Palmales], Venezuela.

*Range*.—Subtropical zone of northeastern Venezuela (Los Palmales; Carapas, Mount Turumiquire).

<sup>1</sup> *Hemispingus frontalis hanieli* Hellmayr and Seilern: Nearest to *H. f. ignobilis*, but upper parts much duller, more of a grayish green; superciliaries more sharply defined and paler, being ochraceous-buff above the lores and creamy posteriorly; sides of the head grayish or smoky olive; ventral surface much paler, the throat and foreneck antimony yellow to cinnamon-buff, passing into brownish buff abdominally. Wing, 73–77, (female) 68–70; tail, 64–71, (female) 61–64; bill, 13–14.

*Material examined*.—Venezuela: Galipán, Cerro del Avila, 17; Loma Redonda, 1; Silla de Caracas, 7.

<sup>2</sup> *Hemispingus frontalis iteratus* Chapman: Exceedingly close to *H. f. ignobilis*, with which it agrees in coloration of upper parts and superciliaries, but under surface more deeply ochraceous, particularly on the abdomen. Wing (male), 74; tail, 70; bill, 13½.

This form is so close to the Mérida race that we did not attempt to separate it on the basis of a single specimen. Chapman, on the receipt of a series from Mount Turumiquire, has cleverly pointed out its characters which, though slight, appear to be constant. Its striking resemblance to *H. f. ignobilis*, of the Mérida region, is a remarkable case of parallelism, the intervening Caracas section being occupied by the strongly differentiated *H. f. hanieli*.

*Material examined*.—Venezuela: Los Palmales, 1; Carapas, 2.



**\*Hemispingus leucogaster** (Taczanowski). WHITE-BELLIED  
HEMISPINGUS.

*Dacnidea leucogastra* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 131, pl. 19, fig. 2—Maraynioc, Department of Junín, Peru (type in Warsaw Museum); cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 188, 1927).

*Dacnidea albiventris* (lapsus) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 510—Maraynioc.

*Chlorospingus leucogaster* Taczanowski, Proc. Zool. Soc. Lond., 1882, p. 15—Tamiapampa and Chachapoyas, Peru; idem, Orn. Pér., 2, p. 518, 1884—Peru (Maraynioc, Tamiapampa, Chachapoyas); Sclater, Cat. Bds. Brit. Mus., 11, p. 249, 1886—Chachapoyas; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 346—Culumachay and Pariayacu (Maraynioc), Department of Junín.

*Hemispingus leucogaster* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—Peru (Tamiapampa, Leimabamba, Chachapoyas, Maraynioc, Pariayacu, Culumachay); Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 455, 1930—Panao, Department of Huánuco, Peru (crit.).

*Range*.—Temperate zone of northern Peru, from Province of Jaen south to Department of Junín.<sup>1</sup>

4: Peru (Molinopampa, 3; Panao, 1).

**\*Hemispingus melanotis melanotis** (Sclater). BLACK-EARED  
HEMISPINGUS.

*Chlorospingus melanotis* Sclater, Proc. Zool. Soc. Lond., 22, "1854," p. 157, pl. 68, pub. April, 1855—"Bogotá," Colombia (types in British Museum); idem, l.c., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 92, 1856—"Bogotá" (monog.); Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 82—Baños, eastern Ecuador (crit.); Sclater, Cat. Bds. Brit. Mus., 11, p. 250, 1886—"Bogotá."

*Hemispingus melanotis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1095, 1912—Colombia ("Bogotá") and eastern Ecuador (Baños); Chapman, Bull. Amer. Mus. N. H., 36, p. 621, 1917—above Salento, Santa Elena, Fusugasugá, and El Roble, Colombia; idem, l.c., 55, p. 688, 1926—above Baeza, eastern Ecuador.

*Hemispingus melanotis stresemanni* Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 190, 1927—Baños, Ecuador (type in Warsaw Museum;=young).

<sup>1</sup> The Panao birds agree well with a topotype from Maraynioc, while four from northern Peru (Tamiapampa and Molinopampa) have much less grayish suffusion on the chest and less blackish mottling on the crown.

*Additional material examined*.—Peru: Tamiapampa, 2; Maraynioc (Culumachay), 1.

*Range*.—Subtropical zone of the central and eastern Andes of Colombia and eastern Ecuador.<sup>1</sup>

1: Colombia ("Bogotá," 1).

***Hemispingus melanotis ochraceus* (Berlepsch and Taczanowski).<sup>2</sup> OCHRACEOUS-BELLIED HEMISPINGUS.**

*Chlorospingus ochraceus* Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 291, pl. 24, fig. 1—Cayandede and Chaguarpata, western Ecuador (type, from Cayandede, in coll. of H. von Berlepsch, now in Frankfurt Museum, examined); Sclater, Cat. Bds. Brit. Mus., 11, p. 251, 1886—western Ecuador.

*Hemispingus ochraceus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1095, 1912—Ecuador (Cayandede, Chaguarpata); Chapman, Bull. Amer. Mus. N. H., 55, p. 688, 1926—same localities.

*Range*.—Subtropical zone of western Ecuador (Cayandede and Chaguarpata, Province of Chimborazo).

***Hemispingus melanotis piurae* Chapman.<sup>3</sup> PIURA HEMISPINGUS.**

*Hemispingus piurae* Chapman, Amer. Mus. Nov., 67, p. 11, 1923—Palambla, western slope of the Andes, Department of Piura, Peru (type in the American Museum of Natural History, New York).

*Hemispingus castaneicollis chapmani* Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 188, 1927—Tambillo, Province of Jaen, Department of Cajamarca (type in Warsaw Museum).

<sup>1</sup> The Baños specimen described by Sztolcman and Domaniewski is young, and as adults from eastern Ecuador in the American Museum of Natural History do not materially differ from others taken in Colombia, I believe *stresemanni* to have been based on differences of age.

*Material examined*.—Colombia: "Bogotá," 8.—Ecuador: Baños, 1; above Baeza, 2.

<sup>2</sup> *Hemispingus melanotis ochraceus* (Berlepsch and Taczanowski), known from two female examples, differs from *H. m. melanotis* by dusky (instead of black) sides of the head without any white spots in the superciliary region; dark brown back and wing edgings; more uniform reddish ochraceous under parts, etc. Wing, 76–77; tail, 70. This is clearly the western representative of *H. m. melanotis*. Although the male yet remains to be discovered, the females present marked differences of coloration.

*Material examined*.—Ecuador: Cayandede, 1; Chaguarpata, 1.

<sup>3</sup> *Hemispingus melanotis piurae* Chapman: Nearest to *H. m. castaneicollis*, but whole top and sides of the head jet-black; white superciliaries much wider and reaching to the base of the bill; black color below restricted to the chin; under parts nearly uniform orange-ochraceous; tail grayish fuscous without trace of brown. Wing, 63, (female) 61; tail, 57, (female) 58; bill, 13.

There can be hardly any doubt that *H. c. chapmani* is identical with *piurae*. The description agrees with a topotype from Palambla except that no mention is made of the grayish nuchal band, which is, however, expressly noted by Taczanowski when speaking of a bird from Nancho (west slope) in the Raimondi Collection. The late Count Berlepsch, in a manuscript note on one of the Tambillo specimens, furthermore states that the black pileum is separated from the olivaceous back by a grayish collar. *H. m. piurae* would thus seem to inhabit both slopes of the western Cordillera in northwestern Peru.

*Material examined*.—Peru: Palambla, 1.

*Chlorospingus castaneicollis* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1879, p. 229—Tambillo, Peru; idem, Orn. Pér., 2, p. 520, 1884—Tambillo and Montaña de Nancho; Sclater, Cat. Bds. Brit. Mus., 11, p. 249, 1886—part, Peru (references from northern Peru).

*Hemispingus castaneicollis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin p. 1094, 1912—part, northern Peru (Tambillo, Montaña de Nancho).

*Range*.—Subtropical zone of northwestern Peru on both slopes of the western Cordillera (Palambla, western slope, Department of Piura; Montaña de Nancho, western slope, and Tambillo, eastern slope, Department of Cajamarca).

### **Hemispingus melanotis berlepschi** (Taczanowski).<sup>1</sup> BERLEPSCH'S HEMISPINGUS.

*Chlorospingus berlepschi* Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 195—Ropaybamba, Department of Junín, Peru (descr. of female; type in Warsaw Museum); idem, Orn. Pér., 2, p. 521, 1884—Ropaybamba; Sclater, Cat. Bds. Brit. Mus., 11, p. 251, 1886—Peru.

*Hemispingus berlepschi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1095, 1912—Ropaybamba.

*Chlorospingus castaneicollis* (not of Sclater) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 517—Ropaybamba.

*Hemispingus castaneicollis berlepschi* Chapman, Amer. Mus. Nov., 67, p. 12, 1923—Chelpes, Department of Junín (crit.).

*Range*.—Subtropical zone of central Peru (Ropaybamba and Chelpes, Department of Junín).

### **Hemispingus melanotis castaneicollis** (Sclater). ORANGE-NECKED HEMISPINGUS.

*Chlorospingus castaneicollis* Sclater, Proc. Zool. Soc. Lond., 26, p. 293, Nov., 1858—interior of Peru, bordering on Bolivia (type in coll. of P. L. Sclater, now in British Museum); idem, Cat. Coll. Amer. Bds., p. 90, pl. 10, 1862—Peru; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 602—Ramosani and Tilotilo, Yungas, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 249, 1886—Peru (excl. of North Peruvian references) and Bolivia (Ramosani).

*Hemispingus castaneicollis* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1094, 1912—part, Bolivia (Tilotilo, Ramosani, Quebrada Onda, Chaco, Sandillani); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 30, 1920—Chuhuasi, Sierra de Carabaya, Department of Puno, Peru.

<sup>1</sup> *Hemispingus melanotis berlepschi* (Taczanowski), according to Chapman, is intermediate between *H. m. castaneicollis* and *H. m. melanotis*. It has less black on the throat than the former, but like the latter barely traces of superciliaries, while the under parts, on breast and crissum, are ochraceous-orange as in *castaneicollis*; on the abdomen ochraceous-buff as in *melanotis*.

We are not acquainted with this race, which has only been recorded from the Department of Junín in central-eastern Peru.

*Hemispingus castaneicollis castaneicollis* Chapman, Amer. Mus. Nov., 67, p. 12, 1923—southeastern Peru (Santo Domingo) and Bolivia (Yungas and Roquefalda, Cochabamba).

*Range*.—Subtropical zone of extreme southeastern Peru (Sierra of Carabaya, Department of Puno) and Bolivia (Yungas of La Paz and Cochabamba).<sup>1</sup>

**\*Hemispingus goeringi** (Sclater and Salvin).<sup>2</sup> GOERING'S HEMISPINGUS.

*Chlorospingus goeringi* Sclater and Salvin, Proc. Zool. Soc. Lond., 1870, pp. 780, 784, pl. 46, fig. 2 [=1]—Páramo of Mérida, Venezuela (type in coll. of P. L. Sclater, now in British Museum); Sclater, Cat. Bds. Brit. Mus., 11, p. 250, 1886—Páramo of Mérida.

*Hemispingus goeringi* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1095, 1912—Andes of Mérida.

*Hemispingus (Orospingus) goeringi* Chapman, Amer. Mus. Nov., 67, p. 12, 1923—Mérida region (crit.).

*Range*.—Subtropical zone of the Cordillera of Mérida, western Venezuela.<sup>3</sup>

3: Venezuela (Escorial, Mérida, 3).

Genus **PSEUDOSPINGUS** Berlepsch and Stolzmann<sup>4</sup>

*Pseudospingus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 346—type, by subs. desig. (Richmond, Proc. U. S. Nat. Mus., 24, p. 710, 1902), *Dacnis xanthophthalma* Taczanowski.

**\*Pseudospingus verticalis** (Lafresnaye). BLACK-HEADED PSEUDOSPINGUS.

*Nemosia verticalis* Lafresnaye, Rev. Zool., 3, p. 227, 1840—Santa Fé de Bogotá, Colombia (type in coll. of F. de Lafresnaye, now in Museum of Comparative Zoology, Cambridge, Mass.; cf. Bangs, Bull. Mus. Comp. Zool., 70, p. 414, 1930).

<sup>1</sup> Birds from southeastern Peru are identical with Bolivian ones.

*Material examined*.—Peru: Chuhuasi, Sierra of Carabaya, 3; Santo Domingo, 2.—Bolivia: Chaco, Yungas of La Paz, 3; Sandillani, Yungas of Pa Paz, 2; Quebrada Onda, Cochabamba, 2.

<sup>2</sup> *Hemispingus goeringi* (Sclater and Salvin), though differing by stronger bill and heavier feet, is obviously a near relative of *H. melanotis*, as manifested by its striking similarity in coloration to *H. m. piurae*, and generic separation (*Orospingus*) would merely serve to obliterate its natural affinities.

<sup>3</sup> Seven specimens from the Cordillera of Mérida examined.

<sup>4</sup> Genus *Pseudospingus* Berlepsch and Stolzmann: Nearest to *Hemispingus*, but with much slenderer, more compressed bill; proportionately longer tail, equal to, or slightly exceeding, the wing; and plumage of a soft, silky texture.



*Chlorospingus verticalis* Sclater, Proc. Zool. Soc. Lond., 23, p. 155, 1855—Bogotá; idem, l.c., 24, p. 93, 1856—Bogotá (monog.); idem, Cat. Coll. Amer. Bds., p. 90, 1862—Bogotá; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 504—Antioquia, Colombia; Salvin, Cat. Strickl. Coll., p. 197, 1882—Bogotá; Sclater, Cat. Bds. Brit. Mus., 11, p. 248, 1886—Colombia (Bogotá, Medellín) and Ecuador (Jima).

*Chlorospingus lichtensteini* Sclater, Proc. Zool. Soc. Lond., 24, p. 30, June, 1856—Bogotá, Colombia (descr. of young; type in Berlin Museum); idem, l.c., p. 93, 1856—Bogotá (monog.).

*Pseudospingus verticalis* Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 19, 1899—Pun, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1095, 1912—Colombia (Bogotá, Antioquia) and Ecuador (Jima); Chapman, Bull. Amer. Mus. N. H., 36, p. 622, 1917—Almaguer, Laguneta, and Santa Isabel, central Andes of Colombia; idem, l.c., 55, p. 689, 1926—eastern Ecuador (above Baeza, Oyacachi, and upper Sumaco).

*Range.*—Humid Temperate zone of the central and eastern Andes of Colombia and eastern Ecuador.<sup>1</sup>

2: Colombia ("Bogotá," 2).

**\*Pseudospingus xanthophthalmus** (Taczanowski).<sup>2</sup> YELLOW-EYED PSEUDOSPINGUS.

*Dacnis xanthophthalma* (Jelski MS.) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 131—Maraynioc, Department of Junín, Peru (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 191, 1927); idem, l.c., 1874, p. 510—Maraynioc; idem, l.c., 1882, p. 9—Tamiapampa, Peru.

*Chlorospingus xanthophthalmus* Taczanowski, Orn. Pér., 2, p. 522, 1884—Peru (Maraynioc, Tamiapampa); Sclater, Cat. Bds. Brit. Mus., 11, p. 249, 1886—Peru.

*Pseudospingus xanthophthalmus* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 346—Maraynioc (crit., meas.); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1095, 1912—Peru (Tamiapampa, Maraynioc, Pariayacu); Chapman, Bull. U. S. Nat. Mus., 117, p. 122, 1921—Occobamba Valley, Urubamba, Peru.

*Range.*—Humid Temperate zone of Peru, from Department of Amazonas (Tamiapampa, Molinopampa) south through Junín (Maraynioc) to the Urubamba region, Department of Cuzco.

1: Peru (ten miles east of Molinopampa, 1).

<sup>1</sup> Three specimens from Ecuador agree well with Bogotá skins.

*Additional material examined.*—Colombia: "Bogotá," 17.—Ecuador: Pun, 3.

<sup>2</sup> *Pseudospingus xanthophthalmus* (Taczanowski) is a near ally of *P. verticalis*, from which it differs principally by lacking all black on the head, and may prove to be conspecific.

*Additional material examined.*—Peru: Tamiapampa, 1; Pariayacu, Maraynioc, 2.

Genus *UROTHRAUPIS* Taczanowski and Berlepsch

*Urothraupis* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 83—type, by monotypy, *Urothraupis stolzmanni* Taczanowski and Berlepsch.

*Urothraupis stolzmanni* Taczanowski and Berlepsch. STOLZMANN'S TANAGER.

*Urothraupis stolzmanni* Taczanowski and Berlepsch, Proc. Zool. Soc. Lond., 1885, p. 83, pl. 8—San Rafael (alt. 9,000 ft.), eastern Ecuador (type in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 191, 1927); Selater, Cat. Bds. Brit. Mus., 11, p. 251, 1886—San Rafael; Goodfellow, Ibis, 1901, p. 470—Papallacta, Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1096, 1912—San Rafael; Chapman, Bull. Amer. Mus. N. H., 36, p. 622, 1917—Santa Isabel (alt. 12,000 ft.), central Andes, Colombia; idem, l.c., 55, p. 689, 1926—upper Sumaco, eastern Ecuador.

*Range*.—Humid Temperate zone of eastern Ecuador (San Rafael; Papallacta; upper Sumaco) and the central Andes of Colombia (Santa Isabel).<sup>1</sup>

Genus *MICROSPINGUS* Taczanowski

*Microspingus* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 132—type, by monotypy, *Microspingus trifasciatus* Taczanowski.

*Microspingus trifasciatus* Taczanowski. THREE-STRIPED TANAGER.

*Microspingus trifasciatus* (Jelski MS.) Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 132, pl. 19, fig. 1—Maraynioc, Department of Junín, Peru (type lost, formerly in Warsaw Museum; cf. Sztolcman and Domaniewski, Ann. Zool. Mus. Pol. Hist. Nat., 6, p. 192, 1927); idem, l.c., 1874, p. 517—Maraynioc; Selater and Salvin, l.c., 1879, p. 602—Tilotilo, Prov. Yungas, Bolivia; Taczanowski, Orn. Pér., 2, p. 523, 1884—Maraynioc; Selater, Cat. Bds. Brit. Mus., 11, p. 252, 1886—Tilotilo, Bolivia; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1096, 1912—Peru<sup>2</sup> and Bolivia (Tilotilo, Cocapata); Chapman, Bull. U. S. Nat. Mus., 117, p. 123, 1921—Cedrobamba, Urubamba, Peru.

*Range*.—Humid Temperate zone of southern Peru (departments of Junín and Cuzco) and western Bolivia (Department of La Paz).<sup>3</sup>

<sup>1</sup> *Material examined*.—Eastern Ecuador: San Rafael, 2; Papallacta, 3.

<sup>2</sup> I cannot find any previous record for the north Peruvian localities quoted by Berlepsch, and believe they are due to an erroneous entry in his manuscript. Jelski secured a single adult male at Maraynioc, though he reports having seen the species in the Vitoc Valley as well as at Pumamarca, Junín.

<sup>3</sup> *Material examined*.—Bolivia: Cocapata, Department of La Paz, 3.

Genus *NEOTHRAUPIS* gen. nov.<sup>1</sup>**\*Neothraupis fasciata (Lichtenstein). WHITE-BANDED TANAGER.**

*Tanagra fasciata* Lichtenstein, Verz. Doubl. Berliner Mus., p. 32, 1823—São Paulo, Brazil (type in Berlin Museum); Wied, Beitr. Naturg. Bras., 3, (1), p. 493, 1830—campos of Minas Geraes and Bahia.

*Tanagra axillaris* Spix, Av. Spec. Nov. Bras., 2, p. 41, pl. 54, fig. 2, 1825—Brazil (descr. of first annual plumage; type lost, formerly in Munich Museum; cf. Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 675, 1906).

*Diucopsis fasciata* Bonaparte, Consp. Gen. Av., 1, (2), p. 491, end of 1850—Brazil (diag.); Sclater, Proc. Zool. Soc. Lond., 24, p. 63, 1856—São Paulo, Minas [Geraes], and Bahia (monog.); idem, Cat. Coll. Amer. Bds., p. 97, 1862—Brazil; Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 417—Minas Geraes (Lagõa Santa) and São Paulo (Retiro and Franca); Pelzeln, Orn. Bras., 3, p. 219, 1870—São Paulo (Cimenterio [do Lambari], Itararé, Irisanga) and Matto Grosso (Cuyabá); Salvin, Cat. Strickl. Coll., p. 201, 1882—Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 279, 1886—Brazil (Bahia and "Pelotas, Rio Grande do Sul," errore); Allen, Bull. Amer. Mus. N. H., 3, p. 366, 1891—Chapada, Matto Grosso (descr. of young); Ihering, Rev. Mus. Paul., 3, p. 156, 1899—São Paulo; idem, Cat. Faun. Braz., 1, p. 387, 1907—São Paulo (Rincão, Itararé, Baurú) and Matto Grosso (Porto da Faya, Chapada); Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 83, 1910—Piauhy (Santo Antonio de Gilboez, Santa Maria, and Barroca de Maranhão, Rio Parnahyba); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1107, 1912—Bahia to São Paulo and Matto Grosso; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 289, 1929—Maranhão (Barra do Corda, and Fazenda Inhumá, Alto Parnahyba); Naumburg, Bull. Amer. Mus. N. H., 60, p. 388, 1930—Matto Grosso; Laubmann, Wiss. Ergeb. Deuts. Gran Chaco Exp., Vögel, p. 278, 1930—Ipias, Chiquitos, Bolivia.

*Diuca fasciata* Burmeister, Syst. Uebers. Th. Bras., 3, p. 279, 1856—Lagõa Santa, Minas Geraes.

*Range*.—Campo region of Brazil, from Maranhão and Piauhy south to Minas Geraes and São Paulo, west to Matto Grosso, and the adjacent districts of eastern Bolivia (Ipias, Chiquitos).<sup>2</sup>

<sup>1</sup> Genus *Neothraupis* Hellmayr, gen. nov.

Type: *Tanagra fasciata* Lichtenstein.

Not unlike *Conothraupis* Taczanowski, but bill decidedly shorter and stouter as well as strongly incurved; feet stronger; coloration very different (no white alar speculum; a broad white bar across the wing formed by the tips of the median upper wing coverts). Also related to *Lamprospiza* Cabanis, but wings much shorter and bill much smaller.

This group has long been known as *Diucopsis*, a name that cannot be employed, since it was originally proposed as a substitute of *Schistochlamys* Reichenbach.

<sup>2</sup> *Additional material examined*.—Brazil, Piauhy: Santa Maria, 1; Santo Antonio de Gilboez, 1; Corrientes, 1; Barroca do Maranhão, 2.—Minas Geraes: Agua Suja, near Bagagem, 2.—São Paulo: Itararé, 1; Cimenterio do Lambari, 9.

13: Brazil (Barra do Corda, Maranhão, 1; Fazenda Inhuma, Alto Parnahyba, Maranhão, 5; Chapada, Matto Grosso, 4; Veadeiros, Goyáz, 3).

### Genus CONOTHRAUPIS Taczanowski<sup>1</sup>

*Conothraupis* (Slater MS.) Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 190 (read March 16, 1880)—type, by monotypy, *Schistochlamys speculigera* Gould; Slater, Ibis, (4), 4, No. 14, p. 253, April, 1850—same type.

### \**Conothraupis speculigera* (Gould).<sup>2</sup> BLACK-AND-WHITE Tanager.

*Schistochlamys speculigera* Gould, Proc. Zool. Soc. Lond., 23, p. 69, pub. May 16, 1855—River Ucayali in Peru (type in coll. of J. Gould, now in British Museum); idem, Ann. Mag. Nat. Hist., (2), 15, p. 345, May, 1855 (reprint).

*Diucopsis speculigera* Slater, Proc. Zool. Soc. Lond., 24, p. 68, 1856—River Ucayali (monog.); Slater and Salvin, l.c., 1873, p. 263—Rio Ucayali.

*Conothraupis speculigera* Slater, Ibis, 1880, p. 253 (crit.); Taczanowski, Proc. Zool. Soc. Lond., 1880, p. 198, pl. 21 (=male)—Callacate, Peru; idem, Orn. Pér., 2, p. 546, 1884—Peru (Ucayali, Callacate, Huambo); Slater, Cat. Bds. Brit. Mus., 11, p. 280, 1886—eastern Peru (Ucayali, Callacate); Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1108, 1912—Peru (Ucayali, Callacate, Huambo); Hellmayr, Arch. Naturg., 85, A, Heft 10, p. 33 (in text), 1920—Callacate, Peru (crit.); Carriker, Auk, 51, p. 497, 1934—Samne (west slope of western Cordillera), Department of Libertad, Peru (descr. of female).

*Range*.—Tropical zone of northern Peru (River Ucayali; Callacate; Huambo; Rioja; Samne).

2: Peru (Rioja, 2).

### Genus CHLORORNIS Reichenbach

*Chlorornis* Reichenbach, Av. Syst. Nat., pl. 77, June 1, 1850—type not specified, but obviously *Tanagra riefferii* Boissonneau.<sup>3</sup>

<sup>1</sup> The generic name should probably be credited to Slater, for it seems unlikely that Taczanowski's paper was actually published before the appearance of the April number of "The Ibis."

<sup>2</sup> This scarce species is nearly related to *Lamprospiza melanoleuca* (Vieillot), but aside from certain structural characters, differs by much shorter wings; dark gray rump; somewhat elongated occipital feathers with extensively white bases; distinct white alar speculum; dark gray maxilla, etc. The female has but recently been described. An adult male from Callacate is all I have seen of this rare bird.

<sup>3</sup> Reichenbach's drawing shows the generic characters very well, and his name, accompanied, as it is, by a recognizable figure, cannot be discarded as a nomen nudum, although no type species is mentioned. Moreover, *T. riefferii* was subsequently designated as such by Slater (Cat. Bds. Brit. Mus., 11, p. 281, 1886). The part of Reichenbach's "Avium Systema Naturale" containing plate 77 was issued on June 1, 1850, while Bonaparte's paper read at the meeting of September 16 must have been published considerably later.



*Psittospiza* Bonaparte, Compt. Rend. Acad. Sci. Paris, 31, No. 12, p. 424 (séance du 16 sept.), 1850—type, by orig. desig., *Tanagra riefferii* Boissonneau.

\**Chlorornis riefferii riefferii* (Boissonneau). RIEFFER'S GRASS-GREEN TANAGER.

*Tanagra riefferii* Boissonneau, Rev. Zool., 3, p. 4, 1840—Santa Fé de Bogotá, Colombia (location of type unknown).<sup>1</sup>

*Tanagra prasina* Lesson, Écho du Monde Sav., 10me année, No. 40, col. 947, May 29, 1843—"Bolivia," errore=Colombia (type in Paris Museum).

*Saltator riefferii* Gray and Mitchell, Genera of Bds., 2, p. 363, pl. 89, 1844.

*Psittospiza prasina* Bonaparte, Consp. Gen. Av., 1, (2), p. 492, 1850 (in part).

*Chlorornis prasina* Cabanis, Mus. Hein., 1, p. 141, 1851—Colombia.

*Chlorornis riefferii* Sclater, Tanagr. Cat. Spec., p. 4, 1854—part, Colombia; idem, Proc. Zool. Soc. Lond., 23, p. 154, 1855—Bogotá.

*Psittospiza riefferi* Sclater, Proc. Zool. Soc. Lond., 24, p. 78, 1856—part, New Grenada ("Bogotá") and "forests of the Andes near Quito," Ecuador (monog.); idem, l.c., 28, p. 76, 1860—Lloa, Ecuador; idem, Cat. Coll. Amer. Bds., p. 94, 1862—"Bogotá"; Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 505, pl. 42, fig. 8 (egg)—Envigado, Concordia, Medellín, Remedios, and Santa Elena, Colombia (nest and eggs descr.); Salvin, Cat. Strickl. Coll., p. 199, 1882—"Bogotá"; Berlepsch and Taczanowski, Proc. Zool. Soc. Lond., 1884, p. 292—Chaguarpata and La Union, Ecuador; idem, l.c., 1885, p. 84—Baños, Ecuador; Sclater, Cat. Bds. Brit. Mus., 11, p. 281, 1886—Colombia ("Bogotá," Medellín, Envigado, Santa Elena) and Ecuador (San Lucas); Allen, Bull. Amer. Mus. N. H., 2, p. 72, 1889—"Quito," Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 21, 1899—Pun and "Nanegal," Ecuador; Goodfellow, Ibis, 1901, p. 472—Canzacota (alt. 6,500 ft.) and "below" Baeza (alt. 5,000 ft.), Ecuador; Berlepsch, Verh. 5th Intern. Orn. Congr. Berlin, p. 1110, 1912—Colombia and Ecuador; Lönnberg and Rendahl, Ark. Zool., 14, No. 25, p. 86, 1922—"Canchacoto, road to Chones (alt. 5,500 ft.)," Ecuador.

*Psittospiza riefferii riefferii* Hellmayr, Proc. Zool. Soc. Lond., 1911, p. 1120—Tatamá Mountain, western Andes, Colombia.

*Psittospiza riefferi riefferi* Chapman, Bull. Amer. Mus. Nat. Hist., 36, p. 622, 1917—Paramillo Trail, Andes west of Popayán, Cerro Munchique, Cocal, Almaguer, Laguneta, Santa Elena, El Roble, and El Piñon, Colombia; idem, l.c., 55, p. 689, 1926—"Gualea," below Papallacta, above Baeza, upper Sumaco, and Macas region, Ecuador.

*Range.*—Subtropical and humid Temperate zones of Colombia (except Santa Marta region) and Ecuador.<sup>2</sup>

<sup>1</sup> It is neither in the Vienna Museum nor in the Museum of Comparative Zoology at Cambridge, Massachusetts.

<sup>2</sup> Ecuadorian birds agree with those from Colombia.

*Additional material examined.*—Colombia: "Bogotá," 10; Medellín, Antioquia, 2; Tatamá Mountain, 2.—Ecuador: Chaguarpata, 1; "Nanegal," 2; Pichincha, 4; Pun, 4.

3: Colombia ("Bogotá," 1; Cerro Munchique, Coast range west of Popayán, Cauca, 1; Laguneta, west Quindio Andes, Cauca, 1).

\**Chlorornis riefferii elegans* (Tschudi).<sup>1</sup> PERUVIAN GRASS-GREEN TANAGER.

*Saltator elegans* Tschudi, Arch. Naturg., 10, (1), p. 288, 1844—Peru=wood region east of the Cordilleras<sup>2</sup> (type in Neuchâtel Museum).

*Saltator riefferi* (not *Tanagra riefferii* Boissonneau) Tschudi, Unters. Faun. Peru., Aves, p. 210, 1846—wood region of Peru east of the Cordilleras.

*Chlorornis riefferii* Scater, Tanag. Cat. Spec., p. 4, 1854—part, Peru.

*Psittospiza riefferi* Scater, Proc. Zool. Soc. Lond., 25, p. 78, 1856—part, eastern Peru.

*Psittospiza prasina* (not *Tanagra prasina* Lesson) Bonaparte, Consp. Gen. Av., 1, (2), p. 492, 1850—part, Peru.

*Psittospiza elegans* Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 518—Maraynioc and Pumamarca, Department of Junín (crit.); idem, l.c., 1882, p. 16—Tamiapampa and Ray-urmana (crit.); idem, Orn. Pér., 2, p. 538, 1884—Pumamarca, Maraynioc, Sillapata, Tamiapampa, Chachapoyas, and Ray-urmana, Peru (habits); Scater, Cat. Bds. Brit. Mus., 11, p. 282, 1886—part, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 348—Maraynioc, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 11, 1911—Cumpang, near Tayabamba.

*Psittospiza riefferi elegans* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1110, 1912—northern and central Peru.

Range.—Subtropical and humid Temperate zones of Peru from Amazonas south to Junín.

3: Peru (Cumpang, near Tayabamba, Libertad, 2; Molinopampa, 1).

*Chlorornis riefferii boliviana* (Berlepsch).<sup>3</sup> BOLIVIAN GRASS-GREEN TANAGER.

*Psittospiza riefferi boliviana* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1110, 1145, Feb., 1912—Cillutincara, Bolivia (type in coll. of H. von Berlepsch, now in Frankfurt Museum).

<sup>1</sup> *Chlorornis riefferii elegans* (Tschudi): Differs from *C. r. riefferii* by the greater extent of the rufous color on the face and by having a narrow bluish posterior border to the rufous frontal band.

*Additional material examined*.—Peru: Ray-urmana, 1; Leimabamba, 3; Levanto, 3; Chachapoyas, 2; Cumpang, 3; Maraynioc, 2.

<sup>2</sup> Cf. Tschudi, Peru, Reiseskizzen, 2, p. 254, 1846.

<sup>3</sup> *Chlorornis riefferii boliviana* (Berlepsch): Very similar to *C. r. elegans*, but without the bluish border to the frontal band; rufous of face slightly more extensive; general color on average darker green. Wing, 108–113, (female) 106–110; tail, 88–92, (female) 83–88; bill, 15½–16½.

*Material examined*.—Bolivia, Department of La Paz: Cillutincara (alt. 3,000 metr.), 5; Sandillani (alt. 2,500 metr.), 11; Chaco, 1.

*Psittospiza elegans* (not *Saltator elegans* Tschudi) Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 603—Tilotilo, Bolivia; Sclater, Cat. Bds. Brit. Mus., 11, p. 282, 1886—part, Bolivia (Tilotilo).

*Range*.—Humid Temperate zone of western Bolivia (Department of La Paz).

### Genus ORCHESTICUS Cabanis

*Orchesticus* Cabanis, Mus. Hein., 1, p. 143, Oct., 1851—type, by monotypy, *Orchesticus occipitalis* Cabanis=*Pyrrhula abeillei* Lesson.

#### \**Orchesticus abeillei* (Lesson). BROWN TANAGER.

*Pyrrhula abeillei* Lesson, Rev. Zool., 2, p. 40, 1839—Brazil (type in Abeillé Collection, Bordeaux).

*Diucopis leucophaea* (not *Tanagra leucophaea* Lichtenstein, 1823) Bonaparte, Consp. Gen. Av., 1, (2), p. 491, end of 1850—Brazil (type in Paris Museum).

*Orchesticus occipitalis* Cabanis, Mus. Hein., 1, p. 143, Oct., 1851—based on "Tangara roux" Lesson (Traité d'Orn., p. 464, 1831) and *Diucopis leucophaea* Bonaparte (type from Brazil, collected by A. de Saint-Hilaire, in Paris Museum); Burmeister, Syst. Uebers. Th. Bras., 3, p. 203, 1856—"Sete Lagõas, Minas Geraes."

*Orchesticus abeillei* Sclater, Proc. Zool. Soc. Lond., 24, p. 66, 1856—*island of Itaparica, Bahia* (monog.); idem, Cat. Coll. Amer. Bds., p. 97, 1862—Brazil; idem, Cat. Bds. Brit. Mus., 11, p. 297, 1886—southeastern Brazil ("Pelotas, Rio Grande do Sul," errore).

*Orchesticus abeillei* Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 416—Rio de Janeiro (Nova Friburgo, Macahé); Pelzeln, Orn. Bras., 3, p. 220, 1870—São Paulo (Malmeleiro, near São Roque) and Paraná (Pederneiras, Campo Comprido, Curytiba); Ihering, Rev. Mus. Paul., 3, p. 157, 1899—São Paulo; idem, l.c., 4, p. 153, 1900—Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 366, 1907—Itararé, São Paulo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1108, 1912—southeastern Brazil (Rio de Janeiro, São Paulo, Paraná, "Minas Geraes," and (?)Bahia).

*Range*.—Southeastern Brazil, from Bahia (island of Itaparica) to Paraná.<sup>1</sup>

2: Brazil (Therezopolis, Rio de Janeiro, 2).

### Genus OREOTHRAUPIS Sclater

*Oreothraupis* Sclater, Proc. Zool. Soc. Lond., 24, p. 80, 1856—type, by monotypy, *Saltator arremonops* "Jardine."

<sup>1</sup> Although listed by Burmeister from "Sete Lagõas," Reinhardt positively states that the Brown Tanager does not occur in Minas Geraes. The locality "Pelotas, Rio Grande do Sul," affixed to one of Joyner's specimens in the British Museum, is doubtless erroneous, while for its occurrence in Bahia we have only the testimony of Verreaux, who claims to have shot it on the island of Itaparica.

*Additional material examined*.—Rio de Janeiro: Petropolis, 1; Colonia Alpina, Serra dos Orgãos, 1.—Paraná: Pederneiras, 1; Campo Comprido, 2; Curytiba, 3.—"Brazil," 2.

**Oreothraupis arremonops** (Sclater). FINCH-LIKE TANAGER.

*Saltator arremonops* Sclater,<sup>1</sup> Proc. Zool. Soc. Lond., 23, p. 84, pl. 92, pub. June 26, 1855—"eastern range of the Cordillera to the north of Quito," Ecuador (type in coll. of Sir W. Jardine, present location unknown); Jardine, Edinb. New Philos. Journ., (n.s.), 2, No. 1, p. 119, July, 1855—"eastern Cordillera" of Ecuador.

*Oreothraupis arremonops* Sclater, Proc. Zool. Soc. Lond., 24, p. 80, 1856—Andes in the vicinity of Quito, Ecuador (monog.); Sclater and Salvin, l.c., 1878, p. 439—"eastern valleys of the Andes of Quito"; Sclater, Cat. Bds. Brit. Mus., 11, p. 298, 1886—Intac, Ecuador; Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—Nanegal, Ecuador; Goodfellow, Ibis, 1901, p. 471—below Mindo (alt. 6,000 ft.), Ecuador; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1104, 1143, 1912—western Ecuador (Intac, "Quito") and Colombia; Chapman, Bull. Amer. Mus. N. H., 36, p. 622, 1917—Cocal (alt. 6,000 ft.), western Andes, Colombia; idem, l.c., 55, p. 690, 1926—road to Nanegal, Ecuador.

*Range*.—Subtropical zone of western Colombia (Cocal, western Andes) and western Ecuador (Intac, Mindo, Nanegal).<sup>2</sup>

Genus **LAMPROSPIZA** Cabanis

*Lamprospiza* Cabanis, Arch. Naturg., 13, (1), p. 246, 1847—type, by orig. desig., *Psaris habia* Lesson=*Saltator melanoleucus* Vieillot.

**\*Lamprospiza melanoleuca** (Vieillot). RED-BILLED BLACK-AND WHITE TANAGER.

*Saltator melanoleucus* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 105, 1817—"l'Amérique méridionale" (type, from Cayenne, in Paris Museum examined;=immature male).

*Psaris habia* Lesson, Cent. Zool., p. 186, pl. 59 (=female), about 1831—Cayenne (type in coll. of M. Freire, doubtless lost).

*Lamprospiza habia* Cabanis, Arch. Naturg., 13, (1), p. 246, 1847 (crit.); Bonaparte, Cons. Gen. Av., 1, (2), p. 492, 1850—Cayenne.

*Lamprospiza melanoleuca* Sclater, Tanag. Cat. Spec., p. 4, 1854—Cayenne; idem, Proc. Zool. Soc. Lond., 24, p. 78, 1856—Cayenne (monog.); idem, Cat. Coll. Amer. Bds., p. 94, 1862—Cayenne; Pelzeln, Orn. Bras., 3, p. 218, 1870—Pará, Brazil (tongue, food); Salvin, Cat. Strickl. Coll., p. 199, 1882—Cayenne; Sclater, Cat. Bds. Brit. Mus., 11, p. 296, 1886

<sup>1</sup> Sclater's account clearly has priority by a few days over Jardine's.

<sup>2</sup> Though originally described from the "eastern Cordillera," this bird has since been found only in western Ecuador.

A single adult from "Antioquia" (exact locality not recorded) does not appreciably differ from Ecuadorian specimens. The systematic position of this remarkable bird can only be determined by the study of its anatomy. It may prove to be of Fringilline affinities.

*Material examined*.—Colombia: "Antioquia," 1.—Western Ecuador: below Mindo, 1; Nanegal, 1; "Quito," 2.



—Cayenne; Riker and Chapman, *Auk*, 7, p. 267, 1890—Diamantina, near Santarém, Brazil; Hellmayr, *Nov. Zool.*, 12, p. 276, 1905—Igarapé-Assú, Pará (descr. of female); Sneath, *Journ. Orn.*, 55, p. 295, 1907—Pará; Ihering, *Cat. Faun. Braz.*, 1, p. 366, 1907 (range); Ménégau, *Bull. Mus. Hist. Nat. Paris*, 14, p. 10, 1908—French Guiana (note on type; descr. of young); Berlepsch, *Nov. Zool.*, 15, pp. 118, 320, 1908—Cayenne; idem, *Verh. 5th Intern. Orn. Kongr. Berlin*, pp. 1111, 1145, 1912—Cayenne, Surinam, and Pará (crit.); Hellmayr, *Abhandl. Math.-phys. Kl. Bayr. Akad. Wiss.*, 26, No. 2, pp. 14, 88, 1912—Ipitinga, Rio Acará (crit., range, Pará localities); Sneath, *Bol. Mus. Goeldi*, 8, p. 458, 1914—Pará, Ananindeua, Peixe-Boi, Rio Guamá (Santa Maria do São Miguel), Rio Tapajóz (Villa Braga), and Rio Jamundá (Faro); Hellmayr, *Arch. Naturg.*, 85, A, Heft 10, p. 33, 1920—Yahuarmayo, Carabaya, Peru; Naumburg, *Bull. Amer. Mus. N. H.*, 60, p. 388, 1930—Rio Roosevelt, mouth of Rio Cherrie, Matto Grosso.

*Lamprospiza charmesi* Penard and Penard, *Vog. Guyana*, 2, p. 463, 1910—Pararakweg, Surinam (cotypes in Tring Collection, now in the American Museum of Natural History, New York); Chubb, *Bds. Brit. Guiana*, 2, p. 544, 1921—Bartica Grove.

*Range.*—French, Dutch, and British Guiana; northern Brazil (Pará district, west to the Tapajóz River; Rio Jamundá; Rio Roosevelt, northern Matto Grosso); southeastern Peru (Yahuarmayo, Carabaya).<sup>1</sup>

3: Brazil (Utinga, Pará, 3).

### Genus CISSOPIS Vieillot

*Cissopis* Vieillot, *Analyse d'une Nouv. Orn. Éléme.*, p. 40, April, 1816—type, by monotypy, *Lanius leverianus* Gmelin.

*Bethylus* Cuvier, *Règne Anim.*, 1, p. 341, Dec. 7, 1816—type, by monotypy, *Lanius leverianus* "Shaw" [=Gmelin].

*Brachyrhamphus* Bertoni, *Anal. Cient. Parag.*, 1, No. 1, p. 46, Jan., 1901—type, by orig. desig., *Brachyrhamphus elegans* Bertoni=*Cissopis major* Cabanis.

### \**Cissopis leveriana leveriana* (Gmelin). MAGPIE TANAGER.

*Lanius leverianus* Gmelin, *Syst. Nat.*, 1, (1), p. 302, 1788—based on "Magpie-Shrike" Latham, *Gen. Syn. Bds.*, 1, (1), p. 192, 1781; locality not given<sup>2</sup> (type in Leverian Museum, present whereabouts unknown).<sup>3</sup>

<sup>1</sup> Specimens from near Paramaribo (*L. charmesi*) are absolutely identical with topotypes, and birds from the Pará district do not differ either. A single adult male from Peru (Yahuarmayo) is very slightly larger (wing, 99 against 94–97; tail, 73 against 65–71), but otherwise similar.

*Additional material examined.*—French Guiana: Saint Laurent du Maroni, 1; Cayenne, 3.—Dutch Guiana: near Paramaribo, 3.—Brazil: Pará, 3; Benevides, 2; Igarapé-Assú, 2; Ipitinga, Rio Acará, 1.—Peru: Yahuarmayo, Carabaya, 1.

<sup>2</sup> Cayenne has been substituted as type locality by Berlepsch and Hartert (*Nov. Zool.*, 9, p. 24, 1902).

<sup>3</sup> Not in the Vienna Museum.

- Lanius picatus* Latham, Ind. Orn., 1, p. 73, 1790—based on “Magpie-Shrike” Latham, Gen. Syn. Bds., 1, (1), p. 192, 1781, and Suppl., 1, p. 54, 1787; Cayenne.
- Corvus collaris* Daudin, Traité d’Orn., 2, p. 246, 1800—based on “La Pie Piegrèche” Levaillant, Hist. Nat. Ois. Afr., 2, p. 26, pl. 60, 1799; Cayenne.
- Cissopis bicolor* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 26, p. 417, pl. M. 33, fig. 2, 1818—“à la Guyane et au Brésil” (location of type not stated); idem and Oudart, Galerie Ois., 1, (2), p. 226, pl. 140, circa 1824.<sup>1</sup>
- Saltator bicolor* Lafresnaye and d’Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 36, 1837—Yuracares, Bolivia (spec. examined).
- Bethylus picatus* d’Orbigny, Voy. Amér. Mérid., Ois., p. 269, 1839—Yuracares, Bolivia; Tschudi, Arch. Naturg., 10, (1), p. 288, 1844—Peru.
- Cissopis minor* Tschudi, Unters. Faun. Peru., Aves, p. 211, 1846—Peruvian wooded region (type in Neuchâtel Museum); Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 677, “1848” [=1849]—British Guiana (Pomeroon, Barima, Barama, Aruka); Sclater, Proc. Zool. Soc. Lond., 23, p. 154, 1855—“Bogotá,” Colombia; idem, l.c., 24, p. 79, 1856—Bolivia (Yuracares), eastern Peru, and “Bogotá” (monog.); idem, l.c., 26, p. 454, 1858—Gualaquiza, Ecuador; idem, Cat. Coll. Amer. Bds., p. 94, 1862—“Bogotá”; Taczanowski, Proc. Zool. Soc. Lond., 1874, p. 517—Monterico, Peru; Sclater and Salvin, l.c., 1875, p. 237—San Cristóbal, Tachira, Venezuela; idem, 1879, p. 603—Bolivia (ex d’Orbigny); Taczanowski, Orn. Pér., 2, p. 536, 1884—Peru (Monterico, Yurimaguas, Moyobamba).
- Bethylus leverianus* Schomburgk, Reisen Brit. Guiana, 1, p. 200, 1847—Manari, Barima River.
- Bethylus minor* Bonaparte, Consp. Gen. Av., 1, (2), p. 491, end of 1850—Peru and Bolivia (crit.).
- Bethylus medius* Bonaparte, Consp. Gen. Av., 1, (2), p. 491, end of 1850—[British] Guiana (type in Berlin Museum).
- Cissopis media* Sclater, Proc. Zool. Soc. Lond., 24, p. 79, 1856—Guiana (crit.); idem, Cat. Coll. Amer. Bds., p. 95, 1862—Rio Ucayali, Peru; Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181 (in text)—Ucayali River, Peru; idem, l.c., 1867, pp. 750, 977—Xeberos, Yurimaguas, and Pebas, Peru; idem, l.c., 1873, p. 185—San Antonio, Department of Cuzco, Peru; idem, l.c., 1873, p. 263—Peru (Sarayacu, Xeberos, Chamicuros, Yurimaguas, Pebas); Taczanowski, l.c., 1882, p. 16—Yurimaguas, Peru; idem, Orn. Pér., 2, p. 538, 1884—Peru (Ucayali, Xeberos, Yurimaguas, Sarayacu, Chamicuros, San Antonio); Salvin, Ibis, 1885, p. 213—Bartica Grove, British Guiana.
- Cissopis leveriana* Sclater and Salvin, Proc. Zool. Soc. Lond., 1866, p. 181—Peru (locality not specified); Sclater, Cat. Bds. Brit. Mus., 11, p. 299, 1886—Guiana (Bartica Grove), Venezuela (San Cristóbal), Colombia (“Bogotá”), Ecuador (Sarayacu, “Intaj” [errore], San José), and Peru (Pebas, Ucayali); Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—lower Beni, Bolivia; Berlepsch, Journ. Orn., 37, p. 298, 1889—Sarayacu, Ucayali

<sup>1</sup> Vieillot’s description (“le dos . . . d’un blanc pur”) as well as the plate clearly refers to the Guianan form.

River, Peru (crit.); Salvadori and Festa, Boll. Mus. Zool. Torino, 14, No. 357, p. 22, 1899—Gualaquiza, Ecuador; Goodfellow, Ibis, 1901, p. 471—Archidona and mouth of the Coca, upper Napo, Ecuador; Berlepsch and Hartert, Nov. Zool., 9, p. 24, 1902—La Prición, Caura, Venezuela (spec. examined); Snethlage, Journ. Orn., 56, p. 10, 1908—Rio Purús (Cachoeira, Monte Verde, Bom Lugar); Berlepsch, Nov. Zool., 15, p. 118, 1908—Cayenne; idem, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1111, 1912—Cayenne, British Guiana, and Venezuela (La Prición, Caura); Snethlage, Bol. Mus. Goeldi, 8, p. 459, 1914—Rio Purús (Cachoeira, Bom Lugar, Monte Verde) and (?) Maranhão; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 183, 1916—Suapuré, Caura, Venezuela; Chubb, Bds. Brit. Guiana, 2, p. 545, 1921—Mazaruni River, Ituribisci River, and Bartica Grove.

*Cissopis leveriana minor* Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 348—La Merced and Garita del Sol, Junín, Peru; idem, Orn. 13, p. 111, 1906—Marcapata and Rio Cadena, Peru; Ménégau, Rev. Franç. d'Orn., 2, p. 11, 1911—Nuevo Loreto, Peru; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1111, 1912—eastern Colombia ("Bogotá") and western Venezuela (San Cristóbal) to Bolivia and western Brazil (Rio Purús); Chapman, Bull. Amer. Mus. N. H., 36, p. 622, 1917—Florencia, La Morelia, Villavicencio, and Buena Vista, eastern Colombia; Hellmayr, Nov. Zool., 32, p. 10, 1925—Yuracares, Bolivia; Chapman, Bull. Amer. Mus. N. H., 55, p. 690, 1926—eastern Ecuador (Sabanilla, Zamora, Rio Suno, below San José, and Macas region).

*Cissopis leveriana leveriana* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 456, 1930—Puerto Bermúdez, Huachipa, and Vista Alegre, Peru (crit.); Naumburg, Bull. Amer. Mus. N. H., 60, p. 388, 1930—Tapirapoan, northern Matto Grosso (crit.).

*Range.*—French, Dutch, and British Guiana, and eastern Venezuela (Caura Valley); also in the Tropical zone of Colombia (east of the eastern Andes) and the adjoining section of Venezuela (Tachira) south through eastern Ecuador and Peru to northern Bolivia and the adjacent districts of Brazil (Rio Purús; Rio Madeira; Tapirapoan, northern Matto Grosso).<sup>1</sup>

18: Colombia (Florencia, Caquetá, 2); Peru (Moyobamba, 5; Huachipa, 1; Puerto Bermúdez, 1; Vista Alegre, 2); Venezuela (La Ortiza, Tachira, 2; La Uraca, Tachira, 1; San Cristóbal, Tachira, 1);

<sup>1</sup> After comparing seven specimens from the Guianas (including two from the Caura Valley, Venezuela) with a considerable series from upper Amazonia, I fully agree with Mr. Zimmer's contention that, in spite of the apparent gap in the distribution, there is no constant difference between the two sets. *C. minor* Tschudi thus becomes a synonym of *L. leverianus*. Snethlage (l.c., p. 459, 1914) records this bird from Maranhão, rather a strange locality, which seems to require confirmation.

*Additional material examined.*—French Guiana: Cayenne, 2.—British Guiana: Bartica Grove, 1.—Venezuela: La Prición, Caura River, 2.—Colombia: "Bogotá," 7.—Eastern Ecuador: Gualaquiza, 2; Archidona, 2; San José, 2; unspecified, 3.—Peru: Yurimaguas, 2; La Merced, 2; Chaquimayo, Carabaya, 1.—Bolivia: Yuracares, 1.

British Guiana (Hyde Park, Demerara River, 2); Brazil (Porto Velho, Rio Madeira, 1).

\**Cissopis leveriana major* Cabanis.<sup>1</sup> GREATER MAGPIE TANAGER.

*Cissopis major* Cabanis, Mus. Hein., 1, p. 144, Oct., 1851—based on *Bethylus picatus* (not *Lanius picatus* Latham) Bonaparte, Consp. Gen. Av., 1, (2), p. 491, [end of] 1850, Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 204, 1856—Nova Friburgo, Rio; Cabanis, Journ. Orn., 22, p. 84, 1874—Cantagallo, Rio; Selater, Cat. Bds. Brit. Mus., 11, p. 300, 1886—southeastern Brazil (Bahia; Rio; "Rio Claro, Goyáz"; "Pelotas, Rio Grande do Sul"); Ihering, Rev. Mus. Paul., 3, p. 157, 1899—Piquete, São Paulo; idem, l.c., 4, p. 153, 1900—Cantagallo and Nova Friburgo, Rio; idem, Cat. Faun. Braz., 1, p. 367, 1907—São Paulo (Piquete, Caconde, Baurú, Franca, Itararé); Chubb, Ibis, 1910, p. 630—Sapucay, Paraguay; Dabbene, Bol. Soc. Physis, 1, p. 365, 1914—Santa Ana, Misiones; Miranda-Ribeiro, Arch. Mus. Nac. Rio de Janeiro, 24, p. 255, 1923—Monte-Serrat, Serra do Itatiaia; Velho, l.c., p. 264, 1923—Monte-Serrat.

*Lanius picatus* (not of Latham) Wied, Reise Bras., 2, p. 211, 1821—Siboya, near Arrayal da Conquista, Bahia.

*Bethylus picatus* Wied, Beitr. Naturg. Bras., 3, (1), p. 545, 1830—Arrayal da Conquista, Bahia; Bonaparte, Consp. Gen. Av., 1, (2), p. 491, 1850—Brazil (diag.); Euler, Journ. Orn., 15, p. 190, 1867—Cantagallo.

*Cissopis leveriana* (not *Lanius leverianus* Gmelin) Selater, Proc. Zool. Soc. Lond., 24, p. 78, 1856—southeastern Brazil (monog.); idem, Cat. Coll. Amer. Bds., p. 94, 1862—Brazil; Pelzeln, Orn. Bras., 3, p. 217, 1870—Rio de Janeiro (Pirahy), São Paulo (Mattodentro, Ypanema), and Paraná (Pederneiras); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 420—Minas Geraes (Resaquinha, near Barbacena; Lagõa Santa; Lagõa de Pitos; Sete Lagõas; Andrequecé; Uberaba), Rio de Janeiro (Nova Friburgo; Macahé), and São Paulo (Jacarehy); Berlepsch, Journ. Orn., 7, p. 245, 1873—Blumenau, Santa Catharina.

*Brachyrhamphus elegans* Bertoni, Anal. Cient. Parag., 1, No. 1, p. 46, Jan., 1901—Djaguarasapá, Alto Paraná, Paraguay (type in coll. of A. de W. Bertoni).

*Cissopis leveriana major* Hellmayr, Nov. Zool., 15, p. 32, 1908—Fazenda Esperança and Goyáz, Goyáz; Dabbene, Anal. Mus. Nac. Buenos Aires, 18, p. 378, 1910—Misiones and Paraguay (Alto Paraná); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1111, 1912—Brazil (Bahia to Santa Catharina and Goyáz) and Paraguay; Bertoni, Faun. Parag., p. 63, 1914—Alto Paraná, Paraguay; Holt, Bull. Amer. Mus. N. H., 57, p. 322, 1928—Serra do Itatiaia, São Paulo.

<sup>1</sup> *Cissopis leveriana major* Cabanis differs from the nominate race by larger size, heavier bill, and the extension of the black color over the middle of the back.

*Additional material examined.*—Brazil: Bahia, 1; Rio de Janeiro, 1; São Francisco, Minas Geraes, 1; Rio Jordão, Minas Geraes, 2; Agua Suja, near Bagagem, Minas Geraes, 4; Goyáz, 4; Fazenda Esperança, Goyáz, 1; Alambary, São Paulo, 1; Ypanema, São Paulo, 7; Pederneiras, Paraná, 1; Joinville, Santa Catharina, 11.



*Range*.—Southeastern Brazil, from Bahia, Minas Geraes, and Goyáz south to Santa Catharina, and the adjacent districts of Argentina (Misiones) and Paraguay (Sapucay; Alto Paraná).<sup>1</sup>

3: Brazil (Agua Suja, near Bagagem, Minas Geraes, 1; Candido de Abreu, Paraná, 1); Argentina (Iguazú, Misiones, 1).

### Genus SCHISTOCHLAMYS Reichenbach

*Schistochlamys* Reichenbach, Av. Syst. Nat., pl. 57, June 1, 1850—type, by subs. desig. (Sclater, Cat. Bds. Brit. Mus., 11, p. 301, 1886), *Tanagra capistrata* Wied.

*Diucopis* Bonaparte, Consp. Gen. Av., 1, (2), p. 491, end of 1850—substitute name for *Schistochlamys* Reichenbach.<sup>2</sup>

### \**Schistochlamys ruficapillus ruficapillus* (Vieillot). BROWN-CAPPED TANAGER.

*Saltator ruficapillus* Vieillot,<sup>3</sup> Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 108, 1817—"l'Amérique méridionale"<sup>4</sup> (type in Paris Museum examined); idem, Tabl. Enc. Méth., Orn., livr. 91, p. 793, 1822 (reprint); Pucheran, Arch. Mus. Hist. Nat. Paris, 7, p. 355, 1855 (crit.).

*Tanagra leucophaea* Lichtenstein, Verz. Doubl. Berliner Mus., p. 32, 1823—"Brasilien"—São Paulo (type in Berlin Museum examined).

*Schistochlamys leucophaea* Cabanis, Mus. Hein., 1, p. 141, 1851—Brazil; Burmeister, Syst. Uebers. Th. Bras., 3, p. 209, 1856—Lagõa Santa, Minas Geraes.

*Tanagra capistrata* (not of Wied) Spix, Av. Spec. Nov. Bras., 2, p. 41, pl. 54, fig. 1, 1825—Rio de Janeiro (spec. in Munich Museum examined).

*Diucopis capistrata* Bonaparte, Consp. Gen. Av., 1, (2), p. 491, 1850—Brazil.

*Orchesticus capistratus* Sclater, Proc. Zool. Soc. Lond., 24, p. 67, 1856—part, Rio de Janeiro (monog.); Pelzeln, Orn. Bras., 3, p. 220, 1870—São Paulo (São Paulo, road to Sorocaba, Unaiva, Ypanema) and Paraná (Fazenda Nova, Rio Sapucahy); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 416—Lagõa Santa, Minas Geraes.

*Schistochlamys capistratus* Sclater, Cat. Bds. Brit. Mus., 11, p. 301, 1886—part, spec. h-j, l, Rio, Nova Friburgo, São Paulo, and "Pelotas, Rio Grande do Sul"; Ihering, Rev. Mus. Paul., 3, p. 158, 1899—São Paulo (Ypiranga, Itatiba, Piracicaba); idem, Cat. Faun. Braz., 1, p. 367, 1907—São Paulo

<sup>1</sup> There is no reliable record from Rio Grande do Sul.

<sup>2</sup> *Diucopis* Bonaparte, although generally used for *Tanagra fasciata* Lichtenstein, was proposed as a substitute of *Schistochlamys* Reichenbach, and Gray's action (Cat. Gen. Subgen. Bds., p. 73, 1855), in selecting *T. fasciata* Lichtenstein as type, seems to me inadmissible.

<sup>3</sup> As pointed out elsewhere (Verh. Orn. Ges. Bay., 14, pp. 281-282, 1920), Vieillot's description is disfigured by a misleading misprint.

<sup>4</sup> Rio de Janeiro suggested as type locality (cf. Hellmayr, Verh. Orn. Ges. Bay., 14, p. 282, 1920).

(Ypiranga, Piracicaba, Itararé, Avanhandava, Batataes, Jundiahy, Itatiba) and Minas Geraes (Vargem Alegre).

*Schistochlamys capistrata* Hellmayr, Abhandl. 2. Kl. Bayr. Akad. Wiss., 22, No. 3, p. 675, 1906—Rio de Janeiro (crit.); Holt, Bull. Amer. Mus. N. H., 57, p. 322, 1928—Bemfica and Monte-Serrat, Serra do Itatiaya, São Paulo.

*Schistochlamys capistratus leucophaeus* Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, pp. 1109, 1145, 1912—Rio de Janeiro, Minas Geraes, and São Paulo.

*Schistochlamys ruficapillus ruficapillus* Hellmayr, Verh. Orn. Ges. Bay., 14, p. 282, 1920—Minas Geraes to São Paulo (crit.).

*Range*.—Southeastern Brazil, from southern Minas Geraes (Campanha; Lagõa Santa; Agua Suja, near Bagagem; Vargem Alegre, Marianna) to São Paulo and Paraná.<sup>1</sup>

4: Brazil (Campanha, Minas Geraes, 1; Therezopolis, Rio de Janeiro, 2; Victoria, São Paulo, 1).

**\*Schistochlamys ruficapillus capistratus (Wied).<sup>2</sup> NORTHERN BROWN-CAPPED TANAGER.**

*Tanagra capistrata* Wied, Reise Bras., 2, p. 179, 1821—Fazenda Ilha, near Ressaque, southern Bahia (type now in the American Museum of Natural History, New York; cf. Allen, Bull. Amer. Mus. N. H., 2, p. 222, 1889); idem, Beitr. Naturg. Bras., 3, (1), p. 500, 1830—between Ilha and Ressaque, Bahia.

*Orchesticus capistratus* Sclater, Proc. Zool. Soc. Lond., 24, p. 67, 1856—part, Bahia (ex Wied); Forbes, Ibis, 1881, p. 334—Pernambuco (Vista Alegre, between Quipapá and Macuca; Garanhuns).

*Schistochlamys capistratus* Sclater, Cat. Brit. Mus., 11, p. 301, 1886—part, spec. a-g, k, Pernambuco, Bahia, and "Rio Claro, Goyáz"; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 83, 1910—Piauhuy (Serra of Santa Philomena and Corrientes, Rio Parnahyba); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1109, 1912—Pernambuco, Bahia, and "Rio Claro, Goyáz" (errore).

<sup>1</sup> Birds from Minas Geraes agree with those from more southern localities and the type of *T. leucophaea*. The typical example of *S. ruficapillus*, though badly faded through exposure to light, still shows sufficient remains of its original coloration on the crown and the concealed basal portion of the gular and pectoral feathering to be referred to the southern form. The locality "Pelotas, Rio Grande do Sul," is an obvious error.

*Additional material examined*.—Minas Geraes: Agua Suja, near Bagagem, 2.—Rio de Janeiro: 6.—São Paulo: Ypanema, 6; São Bernardo, 1; Cascata, 1.—Paraná: Fazenda Nova, 1; Rio Sapucahy, 1.

<sup>2</sup> *Schistochlamys ruficapillus capistratus* (Wied): Differs from the nominate race by duller, less reddish (drab to hair brown instead of snuff brown) pileum, and much paler cinnamon color of throat and breast; size smaller, especially the tail shorter. Wing, 73-82; tail, 72-84.

Joyner's specimen from "Rio Claro, Goyáz" proves to be a Bahia trade-skin.

*Additional material examined*.—Bahia, 19.—Pernambuco: Vista Alegre, 2; Macuca, 1.—Piauhuy: Serra of Santa Philomena, 1; Corrientes, Alto Parnahyba, 1.

*Schistochlamys ruficapillus capistratus* Hellmayr, Verh. Orn. Ges. Bay., 14, p. 282, 1920—Bahia, Pernambuco, and Piauh; Reiser, Denks. Math.-Naturw. Kl. Akad. Wiss. Wien, 76, p. 182, 1925—Piauh; Hellmayr, Field Mus. Nat. Hist., Zool. Ser., 12, p. 289, 1929—Maranhão (Barra do Corda and Fazenda Inhuma) (crit.).

*Range*.—Northeastern Brazil, from Bahia and Pernambuco west to Piauh and Maranhão.

6: Brazil (Santo Amaro, Bahia, 1; Barra do Corda, Maranhão, 3; Fazenda Inhuma, Alto Parnahyba, Maranhão, 2).

\**Schistochlamys melanopis melanopis* (Latham). BLACK-FACED TANAGER.

*Tanagra atra* (not of Meuschen, 1787)<sup>1</sup> Gmelin, Syst. Nat., 1, (2), p. 898, 1789—based on Buffon's "Le Camail ou la Cravate" and "Tangara à cravate noire, de Cayenne" Daubenton, Pl. Enl., pl. 714, fig. 2; Cayenne.

*Tanagra melanopis* Latham, Ind. Orn., 1, p. 422, 1790—based on Daubenton, Pl. Enl., pl. 714, fig. 2; Cayenne.

*Saltator melanopis* Vieillot, Nouv. Dict. Hist. Nat., nouv. éd., 14, p. 103, 1817—Cayenne.

*Saltator ater* Cabanis, in Schomburgk, Reisen Brit. Guiana, 3, p. 301, "1848" [=1849]—British Guiana.

*Nemosia atra* Bonaparte, Consp. Gen. Av., 1, (1), p. 236, 1850—Guiana.

*Diucopis atra* Bonaparte, Consp. Gen. Av., 1, (2), p. 492, 1850—Guiana.

*Schistochlamys atra* Cabanis, Mus. Hein., 1, p. 141, 1851—part, Surinam; Sclater, Proc. Zool. Soc. Lond., 23, p. 154, 1855—"Bogotá," "Trinidad," and Cayenne; Sclater, Cat. Bds. Brit. Mus., 11, p. 301, 1886—part, spec. a-k, u-x, "Trinidad," British Guiana (Roraima, Merumé Mountains, Corentyne River), Cayenne, and Colombia ("Bogotá"); Phelps, Auk, 14, p. 364, 1897—San Antonio and Cumanacoa, Monagas, Venezuela; Bangs, Proc. Biol. Soc. Wash., 13, p. 104, 1899—La Concepción and San Antonio (Santa Marta), Colombia; Berlepsch and Hartert, Nov. Zool., 9, p. 24, 1902—Maipures and Perico, Orinoco River, Venezuela; Berlepsch, l.c., 15, p. 118, 1908—Cayenne, French Guiana; Beebe, Zoologica (N.Y.), 1, p. 103, 1909—near Guanoco, Orinoco delta, Venezuela; Penard, Vog. Guyana, 2, p. 465, 1910—Surinam (habits); Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1109, 1912—part, Colombia, "Trinidad," Venezuela, Guianas, and northeastern Brazil (Pará, Santarém); Sneath, Bol. Mus. Goeldi, 8, p. 458, 1914—Santa Isabel (Pará) and Maranhão; Cherrie, Sci. Bull., Mus. Brookl. Inst., 2, p. 183, 1916—Agua Salada de Ciudad Bolivar and above the falls of Atures, Orinoco, Venezuela; Chapman, Bull. Amer. Mus. N. H., 36, p. 623, 1917—Colombia (Quetame, Buena Vista, Villavicencio, near San Agustin); Chubb, Bds. Brit. Guiana, 2, p. 547, 1921—Roraima, Ituribisci River, Bartica, Bonasika, Abary River, Berbice, Corentyne River, and Merumé Mountains.

<sup>1</sup>*Tanagra atra* Meuschen (Mus. Gevers., p. 64, 1787), an indeterminate species, "black with blue shoulders." Cf. Mathews, Austr. Av. Rec., 5, p. 92, 1926.

*Orchesticus ater* Sclater, Proc. Zool. Soc. Lond., 24, p. 67, 1856—part, British Guiana, Cayenne, "Trinidad," and New Granada ("Bogotá"); idem, Cat. Coll. Amer. Bds., p. 98, 1862—"Trinidad," Cayenne, and "Bogotá"; Wyatt, Ibis, 1871, p. 327—near Canta, below Bucaramanga, Colombia; Sclater and Salvin, Proc. Zool. Soc. Lond., 1875, p. 237—San Cristóbal, Tachira, Venezuela; idem, l.c., 1879, p. 505—Antioquia, Colombia; idem, l.c., 1881, p. 213—Corentyne River, British Guiana (crit.); Berlepsch, Journ. Orn., 32, p. 294, 1884—Bucaramanga, Colombia; Salvin, Ibis, 1885, p. 213—British Guiana (Merumé Mountains, Roraima).

*Schistochlamys ater* Ihering, Cat. Faun. Braz., 1, p. 367, 1907—part, Santarém. *Schistochlamys atra aterrima* Todd, Ann. Carnegie Mus., 8, p. 203, 1912—Guarico, Lara, Venezuela (type in Carnegie Museum).

*Schistochlamys atra atra* Todd and Carriker, Ann. Carnegie Mus., 14, p. 482, 1922—Chirua, Santa Marta, Colombia (crit.); Chapman, Bull. Amer. Mus. N. H., 63, p. 133, 1931—Paulo, Roraima.

*Range*.—French, Dutch, and British Guiana; Venezuela; eastern Colombia (Santa Marta region; Magdalena Valley; eastern slope of eastern Andes); and northeastern Brazil (from northern Maranhão west to Santarém, Rio Tapajóz).<sup>1</sup>

7: Venezuela (Caracas, 2; Colón, Tachira, 4); Colombia ("Bogotá," 1).

\**Schistochlamys melanopis grisea* Cory.<sup>2</sup> PERUVIAN BLACK-FACED TANAGER.

*Schistochlamys atra grisea* Cory, Field Mus. Nat. Hist., Orn. Ser., 1, p. 346, Aug., 1916—Rioja, northern Peru (type in Field Museum).

*Saltator melanopis* (not *Tanagra melanopis* Latham) Tschudi, Arch. Naturg., 10, (1), p. 288, 1844—Peru; idem, Unters. Faun. Peru., Aves, p. 210, 1846—wood region east of the Cordilleras, Peru.

*Orchesticus ater* (not *Tanagra atra* Gmelin) Sclater, Proc. Zool. Soc. Lond., 24, p. 67, 1856—part, eastern Peru (ex Tschudi); Sclater and Salvin, l.c., 1869, p. 597—Cosnipata, Department of Cuzco, Peru; idem, l.c., 1873, p. 1873, p. 185—Cosnipata; idem, l.c., 1876, p. 16—Potrero and Huiro, Urubamba, Peru; Taczanowski, Orn. Pér., 2, p. 547, 1884—Peru (Huiro, Cosnipata, Potrero, Maranura, Moyobamba, and "Lechugal").

<sup>1</sup> There is no authentic record of this species from Trinidad, although trade-skins are sometimes ascribed to this island. No difference seems to exist between seven Cayenne specimens and a good series from Venezuela and Colombia. A single adult male from Maranhão (Miritiba) is also decidedly referable to the present form, according to size (wing, 81) and the blackish color of the facial mask.

*Additional material examined*.—French Guiana: Cayenne, 7.—British Guiana: Merumé Mountains, 2.—Venezuela: San Antonio, Monagas, 4; La Cumbre de Valencia, Carabobo, 4.—Colombia: "Bogotá," 8; Bucaramanga, 4.

<sup>2</sup> *Schistochlamys melanopis grisea* Cory: Very similar to *S. m. melanopis*, but slightly darker gray with the black of the crown more extensive and less sharply defined posteriorly; size larger.

A single adult male from Santa Ana, though of slightly paler coloration, agrees in the head-characters with birds from northern Peru.



*Schistochlamys atra* Sclater, Cat. Bds. Brit. Mus., 11, p. 301, 1886—part, spec. r, s, Cosnipata, Peru; Berlepsch and Stolzmann, Proc. Zool. Soc. Lond., 1896, p. 348—La Merced, Chanchamayo, Peru; idem, Orn. 13, p. 83, 1906—Idma, Santa Ana, Peru; (?) Hellmayr, Nov. Zool., 14, p. 353, 1907—Humaytá, Rio Madeira;<sup>1</sup> (?) idem, l.c., 17, p. 279, 1910—Humaytá; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1109, 1912—part, Peruvian localities.

*Tanagra olivina* (not of Sclater, 1864) Sclater, Proc. Zool. Soc. Lond., 1873, pp. 185, 186, pl. 21 (fig. pessima)—part, Cosnipata, Peru (crit.); Sclater and Salvin, l.c., 1876, p. 16—Maranura, Peru.

*Schistochlamys atra olivina* Chapman, Bull. U. S. Nat. Mus., 117, p. 123, 1921—Santa Ana and Idma, Peru (crit.).

*Schistochlamys melanopsis grisea* Zimmer, Field Mus. Nat. Hist., Zool. Ser., 17, p. 455, 1930—Vista Alegre and Chinchao, Department of Huánuco, Peru (crit.).

*Range.*—Subtropical zone of eastern Peru, from the Department of San Martín south to the Urubamba Valley.

6: Peru (Rioja, 1; Moyobamba, 2; Vista Alegre, 2; Chinchao, 1).

**\*Schistochlamys melanopsis olivina (Sclater).<sup>2</sup> BRAZILIAN BLACK-FACED TANAGER.**

*Tanagra olivina* (Natterer MS.) Sclater, Proc. Zool. Soc. Lond., 1864 (Nov. 22), p. 607—Cuyabá, Matto Grosso, Brazil (type in coll. of P. L. Sclater, now in British Museum; descr. of young); Pelzeln, Orn. Bras., 3, p. 210, 1870—Cuyabá; Sclater, Proc. Zool. Soc. Lond., 1873, p. 186—part, Cuyabá.

*Tanagra melanopsis* (not of Latham) Wied, Beitr. Naturg. Bras., 3, (1), p. 504, 1830—southeastern Brazil (Rio Parahyba and Cabo Frio, Rio de Janeiro; Espirito Santo, etc.).

*Saltator melanopsis* d'Orbigny, Voy. Amér. Mérid., Ois., p. 291, 1839—Concepción, Moxos, and San José de Chiquitos, Bolivia.

*Schistochlamys melanopsis* Burmeister, Syst. Uebers. Th. Bras., 3, p. 209, 1856—Rio de Janeiro, São Paulo, and "Santa Catharina."

<sup>1</sup> The proper identification of the birds found on the upper Rio Madeira (Humaytá) cannot be undertaken without an adequate series.

<sup>2</sup> *Schistochlamys melanopsis olivina* (Sclater): Similar to *S. m. grisea* in dimensions, hence larger than *S. m. melanopsis*, but differing from both by paler gray body plumage, and less intense (more brownish black) color of the head and throat. Wing, 82-88.

Birds from eastern Bolivia (Santa Cruz and Chiquitos) agree with a Brazilian series. For the occurrence of this species in the coast region of southeastern Brazil (Rio de Janeiro to Espirito Santo) we have only the testimony of Prince Wied. All the specimens that we have been able to examine are from the interior districts.

*Additional material examined.*—Goyáz: Goyáz, 7; Fazenda Esperança, 3; Abrantes, 1.—Minas Geraes: Pissarão, 2; Agua Suja, near Bagagem, 2.—Matto Grosso: São Vicente, 1; Cuyabá, 4; Chapada, 12.—Bolivia: Santa Cruz, 2; Buena Vista, 6; Rio Surutú, 2; Rio Quiser, Chiquitos, 1.

*Saltator atra* (not *Tanagra atra* Gmelin) Lafresnaye and d'Orbigny, Syn. Av., 1, in Mag. Zool., 7, cl. 2, p. 36, 1837—Chiquitos, Bolivia.

*Schistochlamys atra* Cabanis, Mus. Hein., 1, p. 141, 1851—part, Brazil; Sclater, Cat. Bds. Brit. Mus., 11, p. 301, 1886—part, spec. l-q, Pernambuco, Cuyabá, and Ramosani (Bolivia); Allen, Bull. Amer. Mus. N. H., 2, p. 83, 1889—"Valparaiso" (errore) and Bolivia (Mapiri, Reyes); idem, l.c., 3, p. 367, 1891—Chapada, Matto Grosso (plumages, eggs descr.); Ihering, Rev. Mus. Paul., 3, p. 158, 1899—São Paulo; Berlepsch, Verh. 5th Intern. Orn. Kongr. Berlin, p. 1109, 1912—part, eastern and southern Brazil and Bolivia (Ramosani, Songo, San Antonio, Suapi); Hellmayr, Nov. Zool., 15, p. 31, 1908—Fazenda Esperança and Goyáz, Goyáz; idem, l.c., 32, p. 9, 1925—Chiquitos, Bolivia.

*Orchesticus ater* Sclater, Proc. Zool. Soc. Lond., 24, p. 67, 1856—part, southern Brazil (Goyáz; Albuquerque, Rio Paraguay; Rio; Espirito Santo); Reinhardt, Vidensk. Medd. Naturhist. Foren., 1870, p. 416—Paracatú, Minas Geraes; Pelzeln, Orn. Bras., 3, p. 220, 1870—São Paulo (Rio das Pedras), Minas Geraes (José Dias), Goyáz (Abrantes, Goyáz, Estrella), and Matto Grosso (Cuyabá, São Vicente); Sclater and Salvin, Proc. Zool. Soc. Lond., 1879, p. 604—Ramosani, Yungas, Bolivia; Forbes, Ibis, 1881, p. 334—Parahyba and Pernambuco (Vista Alegre).

*Schistochlamys ater* Ihering, Cat. Faun. Braz., 1, p. 367, 1907—part, Itapura, São Paulo.

*Schistochlamys atra olivina* Laubmann, Wiss. Ergeb. Deuts. Gran Chaco Exp., Vögel, p. 278, 1930—Santa Cruz, Bolivia (crit.).

*Schistochlamys melanopis olivina* Naumburg, Bull. Amer. Mus. N. H., 60, p. 389, 1930—Tapirapoan, Matto Grosso.

*Range*.—Eastern Bolivia and table-land of Brazil, from Parahyba and Pernambuco south to Rio de Janeiro, São Paulo, and Matto Grosso.

4: Brazil (Chapada, Matto Grosso, 2; Rio São Miguel, Goyáz, 2).

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Bold-faced type denotes names adopted in this work.

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