

AMERICAN MUSEUM NOVITATES

PUBLISHED BY THE AMERICAN MUSEUM OF NATURAL HISTORY
CITY OF NEW YORK FEBRUARY 25, 1953 NUMBER 1609

STUDIES OF PERUVIAN BIRDS. NO. 64

THE SWIFTS: FAMILY APODIDAE

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I am greatly indebted to Dr. William H. Phelps of Caracas, Venezuela, for the loan of important critical material used in the following study, and for supplying other useful data.

Names of colors are capitalized when direct comparison has been made with Ridgway's "Color standards and color nomenclature."

Streptoprocne zonaris albicincta (Cabanis)

Hemiprocne albicincta CABANIS, 1862 (May), Jour. f. Ornith., vol. 10, p. 165—"Mexico bis Guiana"; I suggest, as restricted type locality, the junction of Haiama Creek and the Demerara River, British Guiana.

Streptoprocne zonaris bouchellii HUBER, 1893 (April), Auk, vol. 40, p. 302—Eden, Nicaragua; ♂; Acad. Nat. Sci. Philadelphia.

I believe that the two specimens of this species from the Urubamba Valley, Perú, that were recorded by Chapman (1921, Bull. U. S. Natl. Mus., no. 117, p. 65) as *zonaris zonaris* are closer to *albicincta* than to the larger and duller typical subspecies. The Urubamba birds both have the wing measurement within the zone of overlap between the two forms and hence are not clearly identifiable as either on this character. Both, however, have the deeper black coloration of *albicincta*. In addition, a specimen from a little farther to the southeastward (toward the range of *zonaris*) is smaller than any certain example of *zonaris* I have seen. Thirty males of *albicincta* have the wing 189–211 mm. (average 197.9); 22 females, 183–210 (196.3). Thirteen males of *zonaris*: 201–219 (210.1); eight females: 208–214 (211.1). The tail is subject to too much abrasion to be a very serviceable criterion of measurement.

Of seven specimens from central Perú, three have the wing measurement within the zone of overlap, and four are below any *zonaris*. Under the circumstances, I believe all my Peruvian specimens must be referred to *albicincta* to which should be assigned the records from Chayavitas, Lima, Santa Ana, and Huaynapata. The records from the Pampas River Valley may possibly belong to *altissima* under which they were published. They are discussed below under that heading.

A different problem is presented by four specimens, three of which are of unusually small size. Among these is the type of "*Hemiprocne minor*" Lawrence (1882, Ann. New York Acad. Sci., vol. 2, no. 11, p. 355—"Bogota") which has usually been placed in *albicincta*. In the first place, it is certainly not a trade-skin of the well-known "Bogotá-make" but strongly resembles two specimens from Trinidad. It may have come from that same island. The type of "*minor*" has the wing 178 mm. in length; the two Trinidad birds: 179 and 192. All three birds are unusually brownish in general coloration, even making allowance for post-mortem fading, and the two specimens from Trinidad furthermore have the white pectoral band unusually weak and restricted to narrow terminal fringes on the feathers of the area—presumably a character of immaturity but exceeding the pattern shown by other specimens of *albicincta* in comparable condition. The type of "*minor*" has a little more strongly developed pectoral band than the others; all three have the white collar on the hind-neck narrow.

Added to these three birds is a male, in apparently adult plumage, from Utiarity, Mato Grosso, Brazil, with the wing only 174 mm. in length. It also has the nuchal collar narrow, but the breast band is wider although not so wide as in most *albicincta*. The method of preparation of the specimen prevents accurate analysis of this feature. The general coloration also is somewhat less deeply blackish than it is in comparable *albicincta*. This specimen was collected in January. It is possible that this example represents the breeding population of a small subspecies that either ranges farther to the northward or may move in that direction on migration. This species of swift has been credited by different authors with visiting Trinidad only on migration, between July and October, and it has also been said to be probably a transient in British Guiana. Schomburgk found it in British Guiana in April and June, and Chubb reports it from the same

country in November. Unfortunately, there are few specimens from these northern regions, only the single bird from northern Mato Grosso, and none from the intervening area. Until more material is available, it will be impossible to settle the status of the Trinidad, Guianan, and Mato Grosso birds as well as that of the type of "*minor*."

The case is complicated by the nomenclatural issues involved. Cabanis described and named *albicincta* for the (composite) population ranging from México to (British) Guiana which he found to be smaller than the Brazilian *zonaris*. He originally reached his conclusion as to distinction in his study of Schomburgk's specimen from British Guiana but did not formally propose the separation until he had seen Mexican specimens. The Mexican part of the population has since been named *mexicana* by Ridgway (April 19, 1910, Proc. Biol. Soc. Washington, vol. 23, p. 53—Río Seco, near Córdoba, Veracruz, México). Presumably the type locality of *albicincta* should, therefore, be restricted to either México or British Guiana. It would replace *mexicana* in the former alternative and require the use of "*minor*" for the British Guiana population if this should prove to be distinct. The better plan will be to restrict its type locality to British Guiana, leaving *mexicana* intact and allowing the now synonymized "*bouchellii*" to be revived for the widely ranging "*albicincta*" of authors, if the true *albicincta*, with "*minor*" as a synonym, proves to be separable. Accordingly, I have suggested as restricted type locality of *Hemiprocne albicincta* Cabanis the junction of Haiama Creek and the Demerara River, British Guiana, which is about the immediate area where Schomburgk reports having obtained his specimen of the species, the specimen on which Cabanis based his comments. (The Mexican specimens presumably were those in the Heine Collection.)

Hellmayr (1906, Novitates Zool., vol. 13, p. 36) gives the wing length of British Guiana (Annai) and Mt. Roraima specimens as 179–186 mm. Salvin (1885, Ibis, ser. 5, vol. 3, p. 436) gives 7.4 inches for a Roraima specimen. These figures indicate confirmation of the small measurements of the birds from this area. Nevertheless, until the exact status of this possibly distinct population is more clearly determined, I believe it is best to retain the existing nomenclature. I have, however, in the list of specimens examined, segregated the four dubious specimens that suggested this problem, and left them undetermined as to subspecies.

***Streptoprocne zonaris altissima* Chapman**

Streptoprocne zonaris altissima CHAPMAN, 1914 (Nov. 21), Bull. Amer. Mus. Nat. Hist., vol. 33, p. 604—Laguneta, Colombia, 10,300 feet; ♂; Amer. Mus. Nat. Hist.

Morrison (1948, Ibis, vol. 90, p. 122) reported *altissima* from the Pampas River Valley of southern Perú, but gave no exact locality for his five specimens, the elevation at which they were taken, nor their measurements. In the general introduction to the paper, he notes the various localities which he visited as 7000 to 9000 feet, which is below any I have on record for *altissima* (lowest 10,000 feet) and below the highest I have for *albicincta* (9800 feet). The Pampas River Valley is far distant from the nearest locality at which *altissima* has previously been collected (northern Ecuador), and, while the occurrence of this subspecies in southern Perú is not impossible, it is unlikely. Until the identification can be confirmed or denied with certainty, the record may stand with a query.

Morrison added sight records of the birds at Pomayaco, Ahuayro, and Ayacucho.

SPECIMENS EXAMINED

S. z. mexicana.—

MÉXICO:

Orizaba, Veracruz, 1 (?).

GUATEMALA:

(Barrillos, Finca La Primavera, Finca Chamá, Finca Carolina, Progreso, San José, Panteleon, and "Guatemala"), 7 ♂, 8 ♀, 1 (?).

S. z. pallidifrons.—

JAMAICA: 1 ♂, 2 ♀, 1 (?).

SANTO DOMINGO: 1 ♂.

HAITI: 6 ♂, 5 ♀.

CUBA: 2 ♂, 1 ♀.

S. z. albicincta.—

COSTA RICA:

(Miravalles, Aquinares, Navarrito, Irazú, Carrillo, Agua Caliente, Boruca, and "Costa Rica"), 4 ♂, 6 ♀, 1 (?).

PANAMÁ:

(Cerro Flores, Calovevora, Chiriquí, Boquete, Chitrá, Almijas Island, Cebaco Island, Sevilla Island, and Burica Island), 18 ♂, 2 ♀, 2 (?).

COLOMBIA:

(Quitame, Primavera, Medellín, Dabeiba, San Antonio, Las Lomitas, Los Cisneros, Alto Bonito, Villavicencio, Buenavista, and "Bogota"), 10 ♂, 4 ♀, 6 (?).

VENEZUELA:

(Mt. Duida [Savana Grande, Little Savana, and Esmeralda], El Merye [Río Casiquiare], Mérida, El Escorial, Mt. Auyan-tepui, and Mt. Turumiquire), 4 ♂, 9 ♀, 1 (?).

ECUADOR:

(El Chiral and below San José), 1 ♂, 2 ♀.

PERÚ:

Vista Alegre, 3 ♂¹, 1 ♀¹;
 La Merced, 1 ♂, 3 ♀;
 Perené, 1 ♂, 2 ♀;
 Uchumayo, Urubamba, 1 ♂, 1 ♀;
 Cosñipata, 1 ♂;
 "Peru," 1 (?)².

S. z. *zonaris*.—

ARGENTINA:

Las Pavas, Tucumán, 1 ♀¹;
 Tucumán, 4 ♂, 4 ♀;
 Tafí Viejo, 1 ♀;
 La Hullera, Mendoza, 1 ♂.

PARAGUAY:

East of Caaguasú, 3 ♂.

BRAZIL:

Rio de Janeiro, 1 ♂ (type of *Hirundo collaris* Wied), 1 (?);
 Monte Serrat, 1 ♂, 1 ♀;
 Minas Gerais, 1 (?);
 Mato Grosso, Chapada, 2 ♂, 1 ♀;
 Rio Grande do Sul, São Pedro, 1 ♀;
 Rio Grande do Sul, 1 ♀¹;
 "Brazil," 1 (?).

S. z. *altissima*.—

COLOMBIA:

Laguneta, 1 ♂ (type).

ECUADOR:

(Mt. Pichincha, Rucu Pichincha, above Pedregal, Ruminahui, Mt. Corazón, and Quito), 7 ♂, 2 ♀.

S. z. subsp. ?

[COLOMBIA], "Bogota" (*errore*; = Trinidad or lower Orinoco, Venezuela), 1 ? (type of "*minor*").

TRINIDAD:

Chaguanas, 2 ♂.

BRAZIL:

Mato Grosso, Utiarity, 1 ♂.

***Chaetura cinereiventris sclateri* Pelzeln**

Chaetura Sclateri PELZELN, 1867, Ornithologie Brasiliens, pt. 1, pp. 16, 56—
 Borba, Rio Madeira, Brazil; ♂; Vienna Mus.

¹ Specimens in the Chicago Natural History Museum.

² Specimen in the United States National Museum.

I have seen no Peruvian specimens of this swift and must accept the previous records of it as correct. These are but two in number, one from Chamicuros and one from La Gloria. Dr. Phelps has kindly compared the two Chamicuros specimens (in the British Museum) with some of his Venezuelan specimens from Yavita-Pimichín (listed below) and found them in good agreement. Apparently they and the Chamicuros birds belong to the same subspecies, in this case presumably *sclateri*.

Assignment is problematical without a topotype for comparison, and only one of those appears to exist—the type itself. It is curious that the extensive collections made at Borba by Hoffmanns and later by the Olalla brothers did not include a swift of any species, although Natterer obtained both *sclateri* and a member of the *spinicauda* group at that locality. In the absence of certainty as to the exact characters of *sclateri*, therefore, the identification as that form of specimens from other localities in the material at hand is subject to later revision.

Nevertheless, the material in question is relatively uniform and differs from the other described forms of *cinereiventris* in the way that *sclateri* is reputed to do. In view of this, assignment to that form is indicated and may prove to be wholly correct. The specimens are from southwestern Venezuela, eastern Colombia, and southeastern Ecuador, covering a larger extent of terrain than that occupied by any of the other forms of the species. The birds differ from all the others except *occidentalis* in having the uropygium darker gray, but not so dark as in *occidentalis*. The throat also is relatively weakly whitish.

There is some variation in the tone of color on the wings that at first examination appeared to have some significance, but on closer inspection was ascribable to different conditions of wear. A long series from extreme eastern Colombia, taken in July, uniformly shows a trace of greenish lights on the relatively glossy wings, and a December specimen from Ecuador agrees in this respect. An example from farther west in eastern Colombia, taken in March, has, on the contrary, a duller blackish color on the wings, and four specimens from Venezuela, also collected in March, agree with the Colombian bird in question. On examination with a magnifier, the plumes of all these last five examples are found to be slightly but definitely abraded, but several new feathers on one of the specimens show the development of the characters of the July examples. In this case, therefore, the character is not significant.

In the study of comparative material, I have had occasion to examine the two forms *lawrencei* and *guianensis*. Their status was investigated by Hellmayr (1908, Verhandl. Ornith. Gesellsch. Bayern, vol. 8, pp. 154-156) with limited material, part of which is now before me. The characters given by Hellmayr for these supposed forms do not hold. Hellmayr found the two to agree in the color of the uropygium and the under parts but to differ in the color of the upper tail-coverts. *Lawrencei* was found to have the upper tail-coverts blackish, with fine, light inner margins, while *guianensis* had these coverts gray like the rump, with some steely black on the outer webs of the longest ones. One example of *guianensis* from Mt. Roraima, however, had the outer webs of the coverts blackish, approaching *lawrencei*.

The material at hand shows considerable variation in these particulars. The average color of rump and under parts shows a little distinction, being darker in the birds with freshest plumage and varying lighter in individuals with worn plumage or of greater antiquity, but it also averages slightly darker in *guianensis*, sometimes overlapping the lighter extreme of *sclateri* (without the accompanying reduction of gular white shown by that form). The color of the upper tail-coverts also varies, and examples may be found in both series that illustrate both extremes as outlined by Hellmayr. As a matter of fact, examples from Trinidad, Tobago, and northeastern Venezuela (= *lawrencei*) show more gray on the upper coverts, on average, than do those from southeastern Venezuela (= *guianensis*), tending to reverse the situation outlined by Hellmayr.

The distinctions between *lawrencei* and *guianensis* are not pronounced and except in series are not very effective. It is questionable whether *lawrencei* deserves continued recognition. There appears to be some interruption in range, however, by the Venezuelan llanos where the species does not occur. Since an average difference does exist, although slight, the Guianan form may be maintained, but on a precarious basis.

SPECIMENS EXAMINED

C. c. phaeopygos.—

COSTA RICA:

Carrillo, 2 ♂, 3 ♀ (including type);

(Bonilla, Atalanta, Río Frío, and near Jiménez), 7 ♂, 7 ♀, 1 (?).

PANAMÁ:

Almirante, 1 ♂, 1 ♀.

C. c. occidentalis.—

COLOMBIA:

(Cauca and Juntas de Tamañá), 2 ♀.

ECUADOR:

(El Chiral and Las Piñas), 1 ♂, 2 ♀.

C. c. sclateri.—

COLOMBIA:

Buena Vista, above Villavicencio, 1 ♂;

Río Uaupés, opposite Tahuapunto, 18 ♂, 25 ♀.

ECUADOR:

Zamora, 1 ♂.

VENEZUELA:

Yavita-Pimichín, 2 ♂¹, 2 ♀¹.*C. c. lawrencei*.—

TOBAGO: 2 ♂, 2 ♀.

TRINIDAD:

(Princetown, Caparo, Heights of Aripo, and "Trinidad"), 3 ♂, 8 ♀, 2 (?).

MARGARITA ISLAND: 1 (?)¹.

VENEZUELA:

Río Neveri, 1 ♀;

Las Trincheras, Carabobo, 1 ♂;

Cerro Humo, Sucre, 4 ♂¹, 2 ♀¹, 1 (?)¹;Cerro Azul, Sucre, 1 ♂¹.*C. c. guianensis*.—

VENEZUELA:

Mt. Auyan-tepui, 1 ♀;

Mt. Paurai-tepui, 3 ♂¹, 5 ♀¹, 2 (?)¹.*C. c. cinereiventris*.—

BRAZIL:

Santa Catarina, Salto Pirahy, 5 ♂, 2 ♀;

Hansa, 1 ♂;

Espirito Santo, 1 ♀, 1 (?);

"Brazil," 3 (?).

***Chaetura brachyura cinereocauda* (Cassin)**

Acanthylis cinereocauda CASSIN, 1852, Proc. Acad. Nat. Sci. Philadelphia, vol. 5, p. 58, pl. 13, fig. 2—South America (I suggest Manaus, Brazil, as restricted type locality); Acad. Nat. Sci. Philadelphia.

Chaetura brachycerca SCLATER AND SALVIN, 1867, Proc. Zool. Soc. London, p. 758, pl. 34—Xeberos [Jeberos], Perú; cotypes in British Mus.

Judging by the material at hand, there is an Amazonian population of *brachyura* that deserves recognition because of its strongly blackish coloration on all but the posterior parts, with the throat usually uniform with the breast or, when a little lighter, not so

¹ Specimens in Phelps Collection, Caracas, Venezuela.

markedly as in *b. brachyura*. Five specimens from Manaus and one from Rosarinho (Rio Madeira) are particularly pronounced, and one from Mato Grosso and another from Mt. Duida, Venezuela, are at the lighter-throated extreme.

Compared with these are three birds of somewhat uncertain origin, labeled "Quito" with the name of "Losee" added (by G. N. Lawrence) as that of the individual from whom Lawrence procured the specimens. One of these birds is as uniformly black-throated as the Manaus specimens; the other two agree with the Mato Grosso and Duida examples.

Cassin described and figured his *cinereocauda* as uniformly blackish on the anterior parts, and Sclater and Salvin give the same pattern to their *brachycerca*. The application of the two names to the black-throated population thus seems assured. There is, however, one disturbing factor. Among the specimens from Trinidad is one (A.M.N.H. No. 477374) that Hellmayr submitted to Witmer Stone in 1907 for comparison with the type of *cinereocauda*. Stone noted it as identical with that type. It is, in fact, extremely like the dark-throated birds from the Amazon, with one or two possible distinctions, and in most respects is different from the other Trinidad birds I have seen, at least in respect to the dark throat.

However, as nearly as can be determined from the series taken at various times of the year, *cinereocauda* has, on the average, a more greenish tone in the reflections from the wings, at least on unworn feathers, and *brachyura* has duller or more purplish black tones. In this particular, the odd Trinidad specimen unquestionably agrees better with *brachyura*. Furthermore, *cinereocauda* has, on average, a longer wing and shorter tail than *brachyura*, and, although the distinction is slight and largely overcome by overlap, the Trinidad specimen comes just outside the zone of overlap and again agrees with *brachyura*. The figures are as follows, including both sexes which appear to show no distinctions of size:

	WING	TAIL
<i>brachyura</i>	113-124 (118.8)	27-30 (28.8)
<i>cinereocauda</i>	119-130 (123.3)	25.5-29 (27.7)
A.M.N.H. No. 477374	118	30

I have little doubt that the apparent differences in size will be reduced when larger series of the two forms are available, but

at the moment the character may serve to supplement that of color. Further than that, on geographical grounds, a specimen taken in Trinidad might be expected to belong to the resident form which is *brachyura*, but, as mentioned elsewhere, the migratory movements of swifts are very poorly known, and it is not impossible that a vagrant from the Amazon might reach Trinidad. The specimen under discussion was taken in May; some of the October and November specimens of *cinereocauda* are marked as having enlarged gonads, and May, then, would fall within the non-breeding season of that subspecies. Nevertheless, until confirmation of the migratory movement of *cinereocauda* is secured, I prefer to consider the Trinidad bird as an unusually dark specimen of *brachyura*.

Slater and Salvin's "*brachycerca*" from Jeberos, subsequent examples from Chamicuros (mistakenly identified as *poliurus*, with the earlier Jeberos birds), and possibly others from the "Upper Amazon" supply the only Peruvian records assignable here. The three birds labeled "Quito" presumably came from the eastern side of the Andes as many other "Quito" skins have done. A specimen from the western side of the Western Andes agrees with others from western Ecuador but cannot be placed with either *brachyurus* or *cinereocauda*. A new form appears to exist in this area that may be known as follows:

***Chaetura brachyura ocybetes*, new subspecies**

TYPE: From Palambla, Department of Piura, Perú; altitude 3900 to 6500 feet. No. 175123, American Museum of Natural History. Adult male collected October 11, 1922, by Harry Watkins; original no. 6344.

DIAGNOSIS: Similar to *C. b. brachyura* of Tobago, Trinidad, the Guianas, and central Venezuela, but throat and frontal region lighter, with a stronger development of a light superciliary line; tail-feathers lighter than the average of *brachyura*; wings with more greenish, less purplish, lights; wing and tail longer. Compared with *C. b. cinereocauda*, the difference in the color of throat and frontal area even more pronounced; greenish tone of the wings less markedly stronger; greater length of wings and tail less pronounced.

RANGE: Known only from southwestern Ecuador and northwestern Perú.

DESCRIPTION OF TYPE: Crown, occiput, nape, and mantle Olivaceous Black (3), changing rather abruptly on the middle back to Chaetura Drab and thence through Smoke Gray to pale Tilleul Buff \times Pale Drab-Gray on the upper tail-coverts; forehead broadly browner than the crown and with soiled whitish tips which broaden and whiten laterally, extending posteriad halfway over the orbit to form a noticeable, short superciliary line. Chin and throat light Smoke Gray \times Drab Gray, darkening posteriorly and passing into Chaetura Black on the breast and belly; under tail-coverts duplicate the color pattern of the uropygial area. Upper surface of wings blackish, with a greenish tone in certain lights, near Olivaceous Black (2), but tertials lighter, with inner webs near Mouse Gray and terminal margins dull whitish; under wing-coverts Mouse Gray \times light Hair Brown. Tail with median rectrices near Pale Smoke Gray and outer ones Drab, the intervening feathers showing the transition; all rectrices with blackish shafts. Bill (in dried skin) black; feet black. Wing, 126 mm.; tail, 32; exposed culmen, 3; culmen from base, 6; tarsus, 11.

REMARKS: Female not recognizably distinct from the male. Range of measurements: males, wing, 124–127.5 mm. (125.8); tail, 31–32 (31.8); culmen from base, 6; female, wing, 124; tail, 32; culmen from base, 6.

There are no earlier records from Perú assignable to this form.

SPECIMENS EXAMINED

C. b. praevelox.—

ST. VINCENT:

(Kingston, Barrouali, Greathead, and "Edinborogh"), 3 ♂, 2 ♀.

C. b. brachyura.—

TOBAGO:

Mariah, 1 ♂.

TRINIDAD:

(Caparo, La Brea, and Laventilla), 4 ♂, 3 ♀.

VENEZUELA:

(Agua Salada de Ciudad Bolívar, Caura, and "Orinoco"), 2 ♀, 3 (?).

SURINAM:

Near Paramaribo, 1 ♂, 6 ♀, 3 (?).

CAYENNE:

(Isle le Père and Roche Marie), 3 ♂, 3 ♀

C. b. cinereocauda.—

VENEZUELA:

Esmeralda, Mt. Duida, 1 ♂.

BRAZIL:

- Manaus, 1 ♂, 2 ♀, 1 (?);
 Rosarinho, Rio Madeira, 1 ♂;
 Rio do Calor, Mato Grosso, 1 ♀.

ECUADOR:

- "Quito" [= probably upper Río Napo region], 3 (?).

C. b. ocypetes.—

ECUADOR:

- Casanga, Province of Loja, 2 ♂, 1 ♀, 1 (?).

PERÚ:

- Palambla, 1 ♂ (type).

***Chaetura pelagica* (Linnaeus)**

[*Hirundo*] *pelagica* LINNAEUS, 1758, *Systema naturae*, ed. 10, vol. 1, p. 192—
 America = South Carolina; based on the American Swallow, *Hirundo cauda*
aculeata americana Catesby, Carolina, vol. 3, p. 8.

The Chimney Swift is probably a regular winter visitant to Perú, but at present there is a single record of such occurrence. This was of a group found at a locality on the Río Yanayacu, an eastern affluent of the Río Napo, not far above the mouth of the latter stream (Lincoln, 1944, *Auk*, vol. 61, pp. 604–609). The specimens sent to Lincoln had been banded somewhat earlier (1936–1940) in Alabama, Connecticut, Georgia, Illinois, Ontario, and Tennessee.

Records from other parts of South America are restricted to one from Santa Rosa, eastern Colombia (Zimmer, 1945, *Auk*, vol. 62, p. 145), and one sight record from Manaus, Brazil (Gilliard, 1944, *Auk*, vol. 61, p. 143). The species certainly must occur elsewhere in South America in winter, but has yet to be discovered.

***Cypseloides rutilus brunntorques* (Lafresnaye)**

Chaetura brunntorques LAFRESNAYE, 1844, *Rev. Zool.*, vol. 7, p. 81—Colombia.

Chaetura nubicola BRODKORB, 1938 (April 11), *Occas. Papers Mus. Zool. Univ. Michigan*, no. 369, p. 1—Mt. Ovando, Chiapas, México; ♀ [imm.], *Univ. Mich. Mus. Zool.*

I can find no recognizable distinctions in a good series of birds from eastern México south to Bolivia, with the exception of a single example from northern Perú which is discussed under *griseifrons*.

I am unable to agree with the placement of the present species in *Chaetura* nor yet the recognition of a monotypic genus, *Chae-*

turellus (Mathews, 1918, The birds of Australia, vol. 7, p. 267) for its reception. Except for the rufous collar and throat of the adults, *rutilus* agrees with the other members of *Cypseloides*, and immature examples, lacking the bright collar, are even less distinguishable. The texture of the plumage, the relative or complete absence of prominent spiny tips on the rectrices, and the absence of a differentiated light uropygial area (that is present though poorly marked even in *Chaetura pelagica*) are features of *Cypseloides*. The relative lengths of hind and inner toes are not of service in the present instance since the proportion is intermediate, with the hind toe neither so short as in various species of *Chaetura* nor so long as in most *Cypseloides*. The nest, furthermore, is said (Orton, 1871, Amer. Nat., vol. 4, p. 713) to be made "not of mud and sticks . . . but chiefly of moss, very compact and shallow, and located in dark culverts about 2 feet above the water; never on houses or trees." Although Jelski, quoted by Taczanowski (1884, Ornithologie du Pérou, vol. 1, p. 230) reports the species as spending the night in holes in trees, Beebe (1949, Zoologica, vol. 34, no. 8, pp. 58-59) found the birds roosting in numbers on the side of a rocky cliff. The resemblance here is to *Cypseloides* and not to *Chaetura*.

There are various records of the species from different localities in Perú, some of which may be assignable to *griseifrons*, but in the absence of all the critical material, such assignment cannot be certified. Undoubtedly *brunneitorques* occurs at all the localities in question. Those from which material has not been examined are Amable Maria, Huambo, Tambillo, Chirimoto, and Hacienda Huarapa (Huánuco).

***Cypseloides rutilus griseifrons* (Nelson)**

Cypselus brunneitorques griseifrons NELSON, 1900 (July), Auk, vol. 17, p. 262—Santa Teresa, Territory of Tepic, México; ♂; U. S. Natl. Mus.

A male in Chicago Natural History Museum from Hacienda Llagueda, near Otuzco, northern Perú, agrees surprisingly well with the type of *griseifrons*, as I have earlier noted (1930, Field Mus. Nat. Hist., zool. ser., vol. 17, p. 271). It has the rufous of the under parts slightly paler than does the type, the belly and flanks of about the same tone or only slightly darker, the throat lighter, the back slightly darker, and the grayish marking of the forehead, superciliary region, and lores equally prominent or a little more extensive. In 58 other specimens, ranging from eastern

México to Bolivia, I can find no more than a faint suggestion of the grayish loreal marking on a few examples and usually no trace of it. It is prominent in *C. r. rutilus* but is certainly not so in *brunnitorques*. Consequently, I believe that the Hacienda Llagueda specimen must be a wintering individual of *griseifrons* and not a resident *brunnitorques*. Our knowledge of the migratory movements of American swifts is fragmentary, and there is still much to be learned. Beebe's interesting account of swift migration at Rancho Grande, Venezuela (1949, *Zoologica*, vol. 34, no. 8, pp. 53-62), produced some surprising new data, and the relatively recent discovery of the wintering ground of the Chimney Swift indicates the need for additional field work.

It is possible, therefore, that *griseifrons* is a regular, if sparing, visitor to parts of South America and may be found in future (if not older) collections from all regions between western México and the southern limits of the specific range. As a rule, swifts are relatively poorly represented in collections owing to the difficulty of collecting them in numbers, which may account for the paucity of information on various phases of the subject.

SPECIMENS EXAMINED

C. r. griseifrons.—

MÉXICO:

Santa Teresa, Tepic, 1 ♂¹ (type)¹.

PERÚ:

Hacienda Llagueda, 1 ♂².

C. r. brunntorques.—

MÉXICO:

Orizaba, 1 (?)¹;

Jalapa, 1 (?)¹.

GUATEMALA:

Dueñas, 1 ♂¹;

Nebaj, 1 ♂¹.

COSTA RICA:

San José, 1 ♂¹, 1 ♂¹, 1 (?)¹;

Irazú, 4 ♂¹, 2 ♀;

Cuadros de Irazú, 1 ♂³, 1 ♀³;

Los Cuadros, 1 ♂³;

San Pedro, 1 ♂³, 2 ♀;

La Hondura, 1 ♂¹;

Cariblanco de Sarapiquí, 1 ♂³.

¹ Specimens in the United States National Museum.

² Specimen in Chicago Natural History Museum.

³ Specimens in Carnegie Museum, Pittsburgh.

COLOMBIA:

- Río Negro, Boyacá, 1 ♀¹;
 Buena Vista (Meta), 1 ♂, 2 ♀;
 Aguadita, 1 ♀;
 Quitame, 1 ♀;
 Medellín, 1 (?).

ECUADOR:

- Zamora, 1 ♂, 3 ♀;
 "Quito," 1 (?).

PERÚ:

- Chaupe, 1 ♀;
 Chinchao, 1 ♂²;
 La Merced, 2 ♀;
 La Gloria, 1 ♀;
 Idma, 1 ♂³;
 Santa Ana, 1 ♂;
 Santa Rita, 2 ♀;
 below Limbani, 1 ♂;
 La Pampa, 3 ♂, 3 ♀.

BOLIVIA:

- Incachaca, 2 ♂, 1 ♀;
 Miguelita, 2 ♀.

VENEZUELA:

- Sierra de Carabobo, 3 ♂¹;
 Colonia Tovar, 2 ♂¹, 1 ♀¹.

C. r. rutilus.—

VENEZUELA:

- Mt. Duida, Savana Grande, 1 ♀;
 Mt. Auyan-tepui, 7 ♂, 11 ♀, 1 ? ♀.

***Cypseloides cryptus* Zimmer**

Cypseloides cryptus ZIMMER, 1945 (Oct. 19), Auk, vol. 62, p. 588—Inca Mine, Río Távara, Perú; ♂; Amer. Mus. Nat. Hist.

Inca Mine, 1 ♂ (type).

I regret to say that I have no additional information concerning the occurrence and distribution of this species in Perú beyond what I reported in the original account. There is a record of "*fumigatus*" from Cosñipata, not far from Inca Mine, that may belong to *cryptus*, but without examination of the specimen such assignment is questionable. From published measurements of the specimen, it is probably correctly left in the *fumigatus* group and is further discussed under *C. f. rothschildi*.

¹ Specimens in Carnegie Museum, Pittsburgh.

² Specimen in Chicago Natural History Museum.

³ Specimen in the United States National Museum.

Cypseloides fumigatus rothschildi Zimmer

Cypseloides fumigatus major ROTHSCHILD (not *Chaetura major* BERTONI, 1900), 1931 (Dec. 1), Bull. Brit. Ornith. Club, vol. 52, p. 36—Tucumán [= Tapia, Tucumán], Argentina; ♂; Amer. Mus. Nat. Hist.

Cypseloides fumigatus rothschildi ZIMMER, 1945 (Oct. 19), Auk, vol. 62, p. 589, in text—new name for *Cypseloides [fumigatus] major* Rothschild.

I have seen no Peruvian specimens of this species, and a single example, now in the British Museum, from Cosñipata, Perú, offers the only Peruvian record. Taczanowski (1884, Ornithologie du Pérou, vol. 1, p. 232) gives the measurements of this specimen and notes the wing as 142 mm.; tail, 51; tarsus, 13. These measurements point to the *fumigatus* group and not to *cryptus*, and the tarsus/wing index of 9.15 as well as the actual tarsal measurement indicates *rothschildi* as opposed to *fumigatus fumigatus*, aside from the improbability that *f. fumigatus* reaches Perú.

It is reasonably safe, therefore, to assign the Cosñipata record to *rothschildi*. Probably the species occurs elsewhere in Perú but has yet to be found or reported.

Apus andecolus parvulus (Berlepsch and Stolzmann)

M[icropus] andecolus parvulus BERLEPSCH AND STOLZMANN, 1892, Proc. Zool. Soc. London, p. 384, footnote 1—Ica, Perú; ♀; Warsaw Mus.

Coracora, 1 ♂; Jesús, Arequipa, 1 ♂.

The present form ranges down the Pacific side of the Andes, at least from Paucal, Perú, to the Province of Tarapacá, northern Chile. Records are scanty, and those from Perú comprise Paucal, Lima, Matucana, Ica, and Arequipa.

Apus andecolus peruvianus (Chapman)

Micropus peruvianus CHAPMAN, 1919 (Dec. 31), Proc. Biol. Soc. Washington, vol. 32, p. 253—Ollantaytambo, Perú; ♀; Amer. Mus. Nat. Hist.

Ollantaytambo, 1 ♂, 1 ♀ (type); Huaraco Cañon, 1 ♂, 1 (?).

This interior form has been collected at Torontoy, Tinta, Quiquijana, and Huancavelica, and there are sight records from as far north as the Hacienda Huarapa, Department of Huánuco. The assignment of the Huarapa record to *peruvianus* is, of course, not unequivocal, since the locality is some distance north of the nearest positive site, but *parvulus* would be of even less probable occurrence there than *peruvianus*, and unless an unknown form is involved, the record may be left with *peruvianus*.

One query arises with reference to the Quiquijana record. Berlepsch and Stolzmann (1903, *Ornis*, vol. 13, pp. 105-26) discuss the collections made by Kalinowski at the various localities they group together as in the Marcapata Valley. Among these localities is Quiquijana where, on May 1, 1898, two species were secured. Kalinowski was in the Marcapata Valley for much of 1897, but apparently returned to Cusco in January, 1898 (or thereabouts), and the first date for any certain Marcapata locality is July 4 of that latter year. The only Quiquijana I am able to find on maps is in the upper Urubamba Valley, and it appears highly probable that this is Kalinowski's locality, visited on his way back to the Marcapata Valley from Cusco. Consequently the evidence for the occurrence of *Apus andecolus peruvianus* in the Marcapata Valley, based on the Quiquijana record, is not conclusive. Since the allied *A. a. andecolus* was described from La Paz, Bolivia, it is possible that any conspecies that may occur in the Marcapata region of Perú could belong to the nominate subspecies, not to *peruvianus*.

***Aëronautes montivagus montivagus* (D'Orbigny
and Lafresnaye)**

Cypselus montivagus D'ORBIGNY AND LAFRESNAYE, 1837, *Mag. Zool.*, vol. 7, cl. 2, "Synopsis avium," p. 70—Santa Cruz de la Sierra, Bolivia; Paris Mus.

Santa Rita [Torontoy], 1 ♀.

I have only a single Peruvian example which agrees well with two Bolivian specimens. Other Peruvian records are from Huambo, Huanta, Auquimarca, Monterico, Pumamarca, Lima, and Huaynapata.

***Panyptila cayennensis cayennensis* (Gmelin)**

[*Hirundo*] *cayennensis* GMELIN, 1789, *Systema naturae*, vol. 1, pt. 2, p. 1024—Cayenne.

The sole basis for the inclusion of the species in the Peruvian list is a specimen, presumably correctly identified, preserved in the British Museum, and recorded by Hartert (1892, *Catalogue of birds in the British Museum*, vol. 16, pp. 461, 462). The specimen is listed as "*n. Ad. sk. Samiria (Whitely), Salvin-Godman Col.*" and probably was collected by John Hauxwell (along with other specimens from Samiria, Perú) whose London agent was Henry Whitely, Sr., from whom Salvin and Godman obtained other of

Hauxwell's collections. The Peruvian identity of the locality has been overlooked in the present instance, and Perú has been omitted in all statements of range of the species that I have observed.

There are no other Peruvian records.

Reinarda squamata semota Riley

Reinarda squamata semota RILEY, 1933 (Feb. 20), Proc. Biol. Soc. Washington, vol. 46, p. 39—El Mango, Brazo Casiquiare, Venezuela; ♀; U. S. Natl. Mus.

I have seen no Peruvian material, but tentatively assign the records from Jeberos and Chamicuros to *semota* on the basis of two females of this form from the Rio Juruá, Brazil, the nearest approach to Peruvian boundaries in the material examined. These examples, preserved in the Royal Museum of Stockholm, Sweden, are somewhat more squamulate on the anterior under parts than most specimens of *semota* I have seen, but they are matched by one or two specimens in the series and would be difficult to separate subspecifically. Gyldenstolpe (1945, K. Svenska Vetenskapsakad. Handl., ser. 3, vol. 22, no. 3, p. 71) has referred these two birds and one other to *squamata squamata*, although without complete assurance and with some uncertainty as to the distinctness of *semota*.

Semota, however is quite distinct from *squamata*, although it is somewhat variable in some of its characters. The steely black upper parts sometimes have little more than a suggestion of the light margins on the feathers that are so prominent in *squamata*, and the outer surface of the wings likewise is almost uniform black. The under tail-coverts are predominantly steely black, with whitish margins on one or both webs which sometimes are weak but on some examples are fairly broad. The dark bases of the throat and breast feathers are exposed, giving a maculated or sometimes lunulate appearance to the area. The under wing-coverts are nearly or quite uniform blackish.

Birds from the general region of the Casiquiare in Venezuela are easily separable from specimens of *squamata* from south-eastern Venezuela, "Guiana," and eastern Brazil from Maranhão to Baía. Six specimens from the Rio Tapajóz and Rio Tocantins are not so easily assigned. They have the maculated pectoral area; three of them have no more of the squamulate dorsal markings than occur in Casiquiare birds, and the other three have less

than is found in any of the series I have assigned to *squamata*. Three of them (not the same three just mentioned) have the under tail-coverts only margined with white, albeit fairly broadly as in the most strongly marked birds from the Casiquiare, but the other three have the whole inner web of the longest coverts white as is usually the case in *squamata*. The ground color of the dark areas of the under tail-coverts in five of the six birds is lighter and duller than in typical *semota*, but in one specimen it is about as in the dullest example from the Casiquiare region. These birds are definitely intermediate between the two forms, but their general appearance more strongly agrees with *semota* than with *squamata*, and I believe they are best assigned to that form. Gyldenstolpe discusses two specimens he had from Manaus, Brazil, with much the same indeterminate variability, and in view of the specimens just discussed, I believe the Manaus records should go with *semota*.

There is a possibility that a separable subspecies exists on the middle reaches of the Orinoco in Venezuela. Most of the specimens at hand from this region are lighter above than the rest of *squamata*, with some tendency to the restriction of the dark areas on the feathers to a relatively narrow subterminal bar; with especially prominent and clearly defined white margins on the dorsum and upper wing-coverts; and with the dark lateral areas of the under parts narrower and lighter, with less tendency for the formation of a pectoral band. Some of these features have already been pointed out by Gilliard (1941, Bull. Amer. Mus. Nat. Hist., vol. 77, p. 468) who also noted the disturbing element presented by one example from the same region which is as dark as most *squamata*. One other Orinoco specimen is nearly as unsatisfactory. Until a more adequate series is available to clarify the apparent confusion, the Orinoco birds may remain with *squamata*.

SPECIMENS EXAMINED

R. s. squamata.—

VENEZUELA:

Caicara, 1 ♂;

Quiribana de Caicara, 1 ♂;

Altagracia, 3 ♂, 2 ♀;

Mt. Auyan-tepui, 4 ♂, 6 ♀.

"GUIANA": 1 (?).

BRAZIL:

Maranhão, Parnahyba, 1 ♂, 1 (?):

Ceará, Lavras, 1 (?);
Piauí, Parnahyba, 1 ♂;
Corrente, 1 ♂, 1 (?);
Gilbues, 1 ♀;
Bafa, Santa Ritta, 1 ♂;
Barra, 1 (?);
Soledade, 1 ♂, 1 ♀.

R. s. semota.—

VENEZUELA:

Mt. Duida, Esmeralda, 4 ♂, 2 ♀;
Río Casiquiare, Solano, 1 ♂, 4 ♀;
Río Orinoco, opposite mouth of Río Ocamo, 1 ♀.

BRAZIL:

Rio Tapajóz, Igarapé Brabo, 3 ♂;
Rio Tocantins, Mocajuba, 1 ♂, 1 ♀, 1 (?);
Rio Juruá, Santo Antonio, Rio Eirú, 2 ♀¹.

¹ Specimens in Royal Natural History Museum, Stockholm.