### PROCEEDINGS

OF THE

## BIOLOGICAL SOCIETY OF WASHINGTON

# A REVIEW OF REICHENBACH'S GENERA SIPTORNIS AND CRANIOLEUCA, WITH DESCRIPTIONS OF NEW ALLIED GENERA AND A SUBGENUS.

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The species included in the Genus Siptornis Reichenbach as recognized by Sclater\* and Sharpe† and later by Brabourne and Chubb‡ apparently represent five genera and at least one subgenus, the distinguishing characters of which may be briefly described as follows:

A. Tail feathers rounded at ends or abruptly pointed (not attenuated terminally and sharply pointed).

a. Size small; tail graduated and much shorter than wing (about ¾); hallux (without claw) longer than outer toe (without claw); wing about 4 times length of tarsus.

Siptornis Reichenbach.

(Type Siptornis flammulata Reichenbach)—not

Sittasomus flammulatus Lesson§ and not Siptornis flammulata Jardine (Sunallaxis striaticollis Lafresnaye.)

b. Size variable; tail evenly graduated with tail feathers either blunt, rounded or abruptly pointed (not attenuated terminally and not with most of the feathers sharply pointed); tail varying from slightly shorter than wing (albiceps) to much longer than wing (sordida, etc.); wing from about 3½ times length of tarsus (curtata, etc.) to about 3 times length of tarsus (humilis, modesta, etc.), or decidedly more than 3 times length of tarsus (erythrops, subcristata, etc.); hallux (without claw) longer than outer toe (without claw) (albiceps, patagonica, etc.), or about equal to outer toes (vulpina, etc.), or shorter (as in most

<sup>\*</sup> Cat. Bds. Brit. Mus., XV, 1890, p. 58.

<sup>†</sup> Hand-list Bds., iii, 1901, p. 58.

<sup>‡</sup> Birds South Am., I, 1912, p. 332.

<sup>§</sup> The type of Sittasomus flammulatus Lesson is a young specimen of Glyphorhynchus cuneatus cuneatus (Lichtenstein) (cf. Pucheran, Rev. Mag. Zool., 1853, p. 489; Menegaux and Hellmayr, Mém. Soc. d'Hist. Nat. d'Autun, XIX, 1906, p. 97).

forms); nasal operculum largely covered by feathers (sordida, etc.) or much more exposed (erythrops, subcristata, etc.).

Cranioleuca Reichenbach.\*

(Type Snyallaxis albiceps d'Orbigny and Lafresnaye.)

c. Tail long, strongly and evenly graduated† and from 1½ times length of wing to nearly twice length of wing; tail feathers slightly narrowed terminally, the ends blunt not sharply pointed; wing about 3 times length of tarsus; frontal feathers stiffened and sharply pointed; hallux (without claw) shorter than outer toe (without claw).

Pseudosiptornis, gen. nov.

(Type Siptornis ottonis Berlepsch.)

d. Tail long, unevenly graduated; tail feathers blunt, the three middle pairs gently graduated, the fourth pair (from outside) at least \% as long as middle pair, and first, second and third pair abruptly and strongly graduated; wing about 3½ times length of tarsus; tail about 1½ times length of wing; hallux (without claw) shorter than outer toe (without claw)
Siptornopsis, gen. nov.

(Type Siptornis hypochondriacus Salvin.)

B. Tail feathers decidedly attenuated terminally and most of the feathers sharply pointed; tarsus 1-3 or more length of wing; plumage on upper parts or under parts or both conspicuously streaked

Siptornoides, gen. nov. (Type Siptornis flammulata Jardine.)

a. Plumage streaked above and below, general plumage dark streaked with white or whitish.

Siptomoides (typica).

b. Upper plumage tawny or buffy streaked with black; under parts largely or entirely without streaks

Eusiptornoides, subgen. nov.

(Type Synallaxis anthoides King.)

The measurements of wing, tail and tarsus of the species and subspecies belonging to the above genera and subgenera are as follows.‡ An asterisk before a name indicates I have not seen specimens and that it is not represented in the British Museum.

<sup>\*</sup>I am unable to find any constant characters to distinguish the Genera Asthenes Reichenbach and Acrorchilus Ridgway from Cranioleuca. In the large number of specimens examined I find considerable variation in the shape of the culmen and also in the extent of the feathering which in some species nearly covers the nasal operculum and in others leaves it much more exposed, but several species appear to be intermediate so far as this character is concerned. The same conditions may be said to obtain regarding the relative length of wing and tarsus, and that of the hallux and outer toe, which vary in combination in different species to such an extent that their diagnostic value as distinguishing generic characters are practically lost. The advisability of recognizing several subgenera in this group based on color characters in connection with one or more of the above mentioned structural characters remains to be determined, but to my mind little advantage would be gained.

<sup>†</sup> Tail measurements of *Pseudosiptornis ottonis* (Berlepsch), cotype from Anta, Cuzco, Peru (No. 99163, American Museum of Natural History, New York)—outer pair rectrices 40 mm.; 2d pair 55; 3d pair 70; 4th pair 85; 5th pair 100; middle pair 115 mm.

<sup>‡</sup>I am greatly indebted to my friend Mr. Charles Chubb for measurements of a number of type specimens, and others in the British Museum.

1	Ving	Tarsus	Tail
Siptornis striaticollis (Lafresnaye) monotypic	66	$16\frac{1}{2}$	50
Cranioleuca albiceps (d'Orbigny and Lafresnaye)		$20\frac{1}{2}$	64
Cranioleuca albicapilla (Cabanis)		25	72
Cranioleuca vulpina vulpina (Reichenbach)		22	72†
Cranioleuca vulpina alopecias (Pelzeln)			'
Cranioleuca pallida (Wied)		17	53
Cranioleuca gutturata (Lafresnaye and d'Orbigny)			
Cranioleuca mulleri (Hellmayr)			
Cranioleuca antisiensis antisiensis (Sclater)		18	70
Cranioleuca antisiensis cisandina (Taczanowski)		18	72
Cranioleuca furcata (Taczanowski)			
Cranioleuca hellmayri (Bangs)		18	68
Cranioleuca baroni (Salvin)		15	81
Cranioleuca curtata curtata (Sclater)		18	61
Cranioleuca curtata debilis (Berlepsch and Stolzmann)	. 67	18	69
Cranioleuca erythrops erythrops (Sclater)		18	71
Cranioleuca erythrops griseigularis (Ridgway)		181/2	72
Cranioleuca erythrops rufigenis (Lawrence)		18	73
Cranioleuca subcristata (Sclater)		171/2	70
Cranioleuca ruticilla (Cabanis and Heine)			
Cranioleuca striaticeps striaticeps (d'Orbigny and			
Lafresnaye)		181/2	69
Cranioleuca striaticeps heterocerca (Berlepsch)		$18\frac{1}{2}$	68
Cranioleuca humicola humicola (Kittlitz)		21	73
Cranioleuca humicola steinbachi (Hartert and Venturi)		21	74
Cranioleuca d'orbignyii (Reichenbach)		22	72
Cranioleuca modesta modesta (Eyton)		21	68
Cranioleuca modesta sajamae (Berlepsch)		$\frac{21}{22\frac{1}{2}}$	76
Cranioleuca modesta rostrata (Berlepsch)		$22\frac{1}{2}$	70
Cranioleuca humilis humilis (Cabanis)		24	79
Cranioleuca humilis marayniocensis (Berlepsch ar		~ 1	• 0
Stolzmann		22	68
Cranioleuca humilis robusta (Berlepsch)		25	73
Cranioleuca arequipae (Sclater and Salvin)		$\frac{26}{24}$	68
*Cranioleuca pudibunda (Sclater)			
Cranioleuca neglecta Cory		22	83
*Cranioleuca hilereti (Oustalet)			
*Cranioleuca heterura (Berlepsch)			
Cranioleuca sordida sordida (Lesson)		21	84
Cranioleuca sordida affinis (Berlepsch)		21	86
Cranioleuca sordida flavogularis (Gould)		$21\frac{1}{2}$	84
Cranioleuca baeri (Berlepsch)		$\frac{21}{21}$	65
Cranioleuca patagonica (d'Orbigny)		21	67
Cranioleuca sulphurifera (Burmeister)	56	18	70
Cranioleuca wyatti (Sclater and Salvin)	58	20	67
Oranocoula wyant (Delatel and Dalvin)		20	

<sup>+</sup> From specimens in the British Museum.

Win	g Tars	us Tail
*Cranioleuca graminicola (Sclater)†		
Pseudosiptornis ottonis (Berlepsch) monotypic60	21	95-110
Siptornopsis hypochondriacus (Salvin) monotypic65	5 20	93
Siptornoides flammulata flammulata (Jardine)	$3   24^{1}$	<sup>2</sup> 74
Siptornoides flammulata multostriata (Sclater)68	5 25	75
Siptornoides flammulata quindiana (Chapman)65	3 25	75
Siptornoides flammulata taczanowskii (Berlepsch and		
Stolzmann)65	3 24	87
Siptornoides flammulata maculicauda (Berlepsch)		
*Siptornoides virgata (Sclater)		
Siptornoides (Eusiptornoides) anthoides (King)70	20	76
Siptornoides (Eusiptornoides) hudsoni (Sclater)	5 22	84
Siptornoides (Eusiptornoides) lilloi (Oustalet)	3 24	85
Siptornoides (Eusiptornoides) punensis (Berlepsch and		
Stolzmann)76	25	90
Siptornoides (Eusiptornoides) maluroides (d'Orbigny		
and Lafresnaye)5	3 161	<b>63</b>

KEY TO THE SPECIES AND SUBSPECIES BELONGING TO THE ALLIED GENERA SIPTORNIS, CRANIOLEUCA, PSEUDOSIPTORNIS, SIPTORNOPSIS, AND SIPTORNOIDES (ADULT MALES) WITH TYPE LOCALITIES.

#### A. Back not distinctly streaked.

- a. Cap and more or less of upper parts (at least upper back) nearly the same color.
  - a<sup>1</sup>. Cap and at least upper back rufous or rufous chestnut or rufous
    - a<sup>2</sup>. Under parts plain (not mottled or spotted).
      - 1. A whitish superciliary stripe

Cranioleuca vulpina vulpina (Pelzeln).

(Rio Claro, Goyaz, Brazil.)

2. Male similar, but female lacks the rufescent upper back

Cranioleuca vulpina alopecias (Pelzeln).

(Rio Branco, N. Brazil.)

- b<sup>2</sup>. Under parts more or less mottled, the feathers tipped with dusky.
  - 1. Front of crown streaked; sides of body reddish brown

Cranioleuca mulleri (Hellmayr).

(Mexiana I., N. E. Brazil.) b1. Cap (ground color) and upper parts, nearly the same color (either

- brown, or olive brown, or buffy brown or grayish). b<sup>2</sup>. Whole tail plain (tail feathers uniform, not bicolored nor distinctly marked with brown or black on some feathers).
  - b³. Crown streaked.
    - b. Underparts olive grayish or buffy grayish.
      - 1. Primaries edged with rufous

Cranioleuca subcristata (Sclater).

(Caracas, Venezuela.)

<sup>†</sup> I have not seen this species and it may not belong to this genus.

2. Primaries not edged with rufous

Cranioleuca ruticilla (Cabanis and Heine).

(Buenos Aires, Argentina.)

c4. Under parts white, whitish or grayish white.

1. Size larger; middle rectrices uniform to the ends

Cranioleuca striaticeps striaticeps (d'Orbigny and Lafresnaye).

(Bolivia.)

Size smaller; middle rectrices with inner webs tinged with dusky and dusky ends

 $Cranioleuca\ striaticeps\ heterocerca\ (Berlepsch).$ 

(Cosquin, Cordova, Argentina.)

c3. Crown not streaked.

c. Flanks streaked with black or blackish.

1. Under parts white or whitish; wings blackish bordered with mouse color Siptornopsis hypochondriacus (Salvin) (Melea, Cajabamba, Peru.)

d4. Flanks not streaked with black.

 Edges of wing coverts rufous; basal part of outer webs of remiges pale rufous forming a band; a sulphur yellow throat spot (adult); no throat spot; under parts more or less tinged with ochraceous or pale tawny; crown and back buffy brown (immature) Cranioleuca sulphurifera (Burmeister).

(Buenos Aires, Argentina.)

2. Wing coverts and tail dark rufous; under parts ochraceous; crown and back tinged with olivaceous (immature); cap rufous (adult) Cranioleuca pallida (Wied).

(Campos Geraes, S. E. Brazil.)

c². Some tail feathers (at least) bicolored, marked or bordered with differently colored ends or bases.

c. Throat white, the feathers with black or brown points or spots; breast (at least) with narrow shaft streaks (no colored throat patch).

 Wing coverts, flanks and lower abdomen rufous brown; a white superciliary stripe; tail dark brown, the outer webs of the two outer feathers largely rufous brown

Cranioleuca humicola humicola (Kittlitz).

(Valparaiso, Chili.)

Similar but wing coverts, flanks and lower abdomen more rusty brown; superciliary stripe but slightly indicated or absent

Cranioleuca humicola steinbachi (Hartert and Venturi). (Cachi, Prov. Salta, Argentina.)

- d³. Throat (in adult) with patch or spot of rufous, chestnut or tawny; throat spot absent or faint in immature.
  - d4. Tail more than 90 mm. long.
    - Tail feathers rufous shading to dusky rufous towards the ends; crown and back brown; forehead rufous; throat spot (in adult) rufous

Pseudosiptornis ottonis (Berlepsch).

(Cuzco, Peru.)

e4. Tail less than 90 mm. long.

e<sup>5</sup>. Rump strongly rufous.

1. Outer tail feather only with inner web black and outer web rufous, rest of tail feathers black; outer secondaries edged with rufous; basal part of secondaries washed with rufous forming a band; throat spot rufous; under parts not milky white

Cranioleuca d'Orbignyii (Reichenbach).

(La Paz, Bolivia.)

2. At least two outer pairs of tail feathers entirely rufous; outer secondaries not edged with rufous and no rufous basal band on secondaries; throat spot rufous; under parts milky white

Cranioleuca arequipae (Sclater and Salvin). (Arequipa, S. W. Peru.)

f5. Rump not strongly rufous.

- f<sup>6</sup>. At least outer tail feather uniform, both webs the same color to the base.
  - f7. Outer tail feather only uniform rufous brown, rufous or pale brown.
    - 1. Outer tail feather brown, rest of tail dark brown, the feathers more or less bordered with pale brown; a white superciliary stripe; throat whitish, more or less indistinctly streaked with brownish

Cranioleuca humilis (Cabanis).

(Junin, Peru.)

2. Outer tail feathers dark rufous, rest of tail dark rufous with blackish on inner webs; throat spot (in adult) tawny rufous

Cranioleuca pudibunda (Sclater).

(Obraillo, C. Peru.)

- g<sup>7</sup>. Two outer pairs of tail feathers uniform rufous, rest blackish or blackish marked with rufous.
  - 1. Third tail feather with some blackish on inner web; tail relatively short (about 68 mm.)

Cranioleuca baeri (Berlepsch).

(Cosquin, Cordova, Argentina.)

- h<sup>7</sup>. Three outer pairs of tail feathers uniform rufous or brownish rufous.
  - h<sup>8</sup>. Upper tail coverts dark rufous.
    - 1. Upper parts brown; rump slightly brownish rufous; under parts, sides and flanks brownish ashy; large throat spot deep rufous chestnut

Cranioleuca neglecta (Cory).\*

(Macate, Peru.)

<sup>\*</sup> This may prove to be the same as pudibunda, but the throat spot and coloration of the tail feathers is quite different from the description of that species, as given by Sclater and Taczanowski.

i<sup>8</sup>. Upper tail coverts brownish like back and rump.

 Upper parts pale brown (between wood brown and buffy brown); throat spot (in adult) tawny rufous Cranioleuca sordida sordida (Lesson). (Chili.)

2. Similar but upper parts darker (more fuscous brown); throat spot similar

Cranioleuca sordida flavogularis (Gould). (Santa Cruz, Patagonia.)

 Similar but upper parts still darker; under parts whitish gray; throat spot rufous chestnut

Cranioleuca sordida affinis (Berlepsch).

(Las Vasques, Tucuman, Argentina.)

- i<sup>7</sup>. Four outer pairs of tail feathers uniform rufous or brownish rufous.
  - Two middle pairs of tail feathers dusky brown (at least on inner webs); tail feathers pointed; throat spot tawny; under parts tinged with tawny

Cranioleuca heterura (Oustalet).\*

(Tucuman, Argentina.)

Four outer tail feathers uniform brownish rufous; two middle pairs with more or less blackish; tail feathers not sharply pointed

Cranioleuca pudibunda (Sclater).†

(Obraillo, C. Peru.)

- j<sup>6</sup>. Outer tail feather more or less bicolor (not uniformly colored to base).
- j<sup>7</sup>. Middle pair of tail feathers with outer webs rufous, inner webs blackish.
  - Outer tail feather with at least basal part of inner web dusky brown or blackish; all tail feathers including middle pair with more or less blackish and rufous; throat spot tawny rufous

Cranioleuca modesta modesta (Eyton).

(Chili.)

Similar but upper parts sandy earth brown; wings and tail longer

Cranioleuca modesta sajamae (Berlepsch).

(Esperanza, Sajama, W. Bolivia).

3. Similar but throat spot (in adult) chestnut rufous; bill longer (about 15 mm.)

Cranioleuca modesta rostrata (Berlepsch). (Vacas, E. Bolivia.)

• I have not seen this species, which may belong to a different genus.

<sup>†</sup> I have not seen this species, which is described by Sclater (and also Taczanowski) as having the two middle pairs of rectrices only marked with blackish on inner webs, the rest of the tail feathers uniform. Berlepsch, however (J. f. O., 1901, p. 93 in text) states that pudibunda has the 2d to 4th pair blackish on inner webs. As no specimens are available, I have been forced to include it in both sections.

k<sup>7</sup>. Middle pair of tail feathers uniform pale tawny.

1. Throat spot (in adult) rufous

Cranioleuca hilereti (Oustalet).

(Tucuman, Argentina.)

- e<sup>3</sup>. Throat uniform pale gravish (no bright colored throat spot in adult.
  - 1. Outer tail feather with outer web rufous, rest of tail feathers blackish; upper parts mouse brown or gravish earthy brown; under parts gravish; under wing coverts ochraceous cinnamon; lower belly and flanks buffy ochraceous

Cranioleuca patagonica (d'Orbigny).

(Rio Negro, Patagonia.)

b. Color of cap and back very different.

- b1. Cap, wings (externally) and tail rufous, chestnut or rusty brownish. b<sup>2</sup>. Breast not distinctly streaked or spotted.
  - b³. Face and sides of head not rufous or cinnamon.
  - b4. With a distinct superciliary stripe.
    - b<sup>5</sup>. Cap streaked with black.
      - 1. Similar to antisiensis, but crown streaked with black

Cranioleuca hellmauri (Bangs).

(Santa Marta, Colombia.)

c5. Cap not streaked with black.

c. Smaller, wing less than 62.

1. Under parts ochraceous; back brownish; superciliary stripe white or whitish

Cranioleuca pallida (Wied).

(Campos Geraes, S. E. Brazil.)

d<sup>6</sup>. Larger, wing more than 60.

1. Under parts ochraceous; back olivaceous; superciliary stripe tawny

Cranioleuca furcata (Taczanowski).

(Chirimoto, N. E. Peru.)

- 2. Under parts pale grayish; upper parts brown; lores and superciliary stripe whitish; wing less than 70 Cranioleuca antisiensis antisiensis (Sclater). (Cuenca, Ecuador.)
- 3. Similar but superciliaries purer white and ear coverts more gravish; under parts somewhat pale

Cranioleuca antisiensis cisandina (Taczanowski).

(Huambo, N. Peru.)

4. Upper parts grayish mouse color; throat white; wing more than 70 mm., otherwise approaches antisiensis, Cranioleuca baroni (Salvin). but larger

(Huamachuco, E. Central Peru.)

c4. Without a distinct superciliary stripe.

1. Upper parts brown tinged with rufous; crown and forehead nearly uniform in color; throat whitish

Cranioleuca curtata curtata (Sclater).

(Bogota, Colombia.)

2. Similar but forehead brownish olive; size somewhat smaller Cranioleuca curtata debilis (Berlepsch and Stolzmann).

(Marcapata, S. E. Peru.)

c3. Face and sides of head rufous or cinnamon.

- cc. Middle pair of rectrices russet brown (different color from rest of tail).
  - 1. Cranioleuca erythrops erythrops (Sclater). (Pallatanga, Ecuador.)
- d4. Middle pair of rectrices cinnamon rufous like rest of tail.
  - 1. Chest grayish; rufous of crown extending to nape

Cranioleuca erythrops griseigularis (Ridgway).

(San Antonio, Rio Cali, N. W. Colombia.)

2. Chest light buffy olive; rufous of crown not extending to nape Cranioleuca erythrops rufigenis (Lawrence).

(Costa Rica.)

c<sup>2</sup>. Breast distinctly streaked or with irregular spots.

 Back reddish brown; crown somewhat darker; breast brownish olivaceous with whitish streaks; superciliary stripe white; belly plain Siptornis striaticollis (Lafresnaye).
 (Bogota.)

2. Back brown; breast pale grayish brown marked with black points or spots to the feathers, belly with obscure blackish

Cranioleuca gutturata (Lafresnaye). (Yuracares, Bolivia.)

- c<sup>1</sup>. Cap white or brownish white (very different from back); tail and more or less of wing coverts rufous.
  - Upper back rufous; lower back brownish; under parts olivaceous brown; size smaller

Cranioleuca albiceps (d'Orbigny and Lafresnaye).

(Sica-Sica, Bolivia.)

2. Upper parts olive brown; cap brownish white; throat and foreneck whitish; rest of under parts pale earthy brown

Cranioleuca albicapilla (Cabanis).

(Maraynioc, Peru.)

B. Back distinctly streaked.

bars

- a. Under parts (at least below the throat) not streaked.
  - a1. Upper parts dark olive brown streaked with blackish.
    - a<sup>2</sup>. Outer tail feathers uniform (plain rufous or brownish rufous); under parts not buffy white.
      - Three outer tail feathers plain rufous; size smaller, wing about 60 mm.; throat spot rufous; breast and sides more or less tinged with brownish olivaceous

Cranioleuca wyatti (Sclater and Salvin). (Santa Marta, Colombia.) Two outer tail feathers uniform brownish rufous; third tail feather with blackish border on inner web; under parts rufous cinnamon; size larger, wing about 72 mm.

Cranioleuca? graminicola (Sclater).\*

(Near Junin, Peru.)

- b<sup>2</sup>. Outer tail feathers largely dark brown (not uniform rufous or brownish rufous); under parts buffy white.
  - Bill shorter; exposed edges of basal part of inner primaries not rufous; inner tail feathers blacker and the pale edging not so pronounced; throat patch larger; darker rufous wing (about 70 mm.) Cranioleuca humilis humilis (Cabanis).
     (Junin, Peru.)
  - Bill longer; exposed edge of basal part of inner primaries rufous; pale edging on inner tail feathers brighter and more conspicuous; throat patch smaller; paler rufous wing (about 67)

Cranioleuca humilis marayniocensis (Berlepsch and Stolzmann).

(Maraynioc, C. Peru.)

3. Similar but larger; wing about 74 mm.

Cranioleuca humilis robusta (Berlepsch).

(Iquico, W. Bolivia.)

- b1. Upper parts olive buffy or olivaceous tawny streaked with blackish.

  b2 Cap plain bright rufous; size smaller wing less than 55 mm;
  - b². Cap plain bright rufous; size smaller, wing less than 55 mm.; tail attenuated and sharply pointed

Siptornoides (Eusiptornoides maluroides (d'Orbigny and Lafresnaye). (Buenos Aires, Argentina.)

- c². Cap not plain rufous; whole crown streaked; size larger, wing much more than 60 mm.; tail attenuated and pointed.
  - c3. Superciliary stripe whitish or buffy white.
    - Throat spot rufous;† flanks and under tail coverts not distinctly streaked; smaller, wing 70 mm. or less

Siptornoides (Eusiptornoides) anthoides (King). (Straits of Magellan.)

2. Throat spot yellowish or rufous; flanks and under tail coverts more or less streaked; wing about 74 mm.

Siptornoides (Eusiptornoides) hudsoni (Sclater).
(Conchitas, Buenos Aires, Argentina.)

 Throat spot rufous; lower abdomen and flanks uniform fawn color without streaks; size of hudsoni

Siptornoides (Eusiptornoides) lilloi (Oustalet).‡
(Tucuman, Argentina).

<sup>\*</sup> I have not seen graminicola Sclater and it may belong to a different genus.

<sup>†</sup> The gular patch and general color of the throat is very variable and may be due to age. In this connection Mr. Charles Chubb writes me as follows: "The colour of the throat is a variable character which occurs in both male and female being sometimes white dotted with black, at others lemon or sulphur yellow, and many (at all seasons of the year) cinnamon rufous."

I have not seen specimens of either lilloi or punensis.

d³. Superciliary stripe rufescent.

1. Superciliary stripe and middle of abdomen rufescent

Siptornoides (Eusiptornoides) punensis (Berlepsch and Stolzmann).
(Puno, S. E. Peru.)

b. Both upper parts and under parts streaked.

b1. Plumage dark streaked with white or whitish.

b2. Size larger, wing more than 68 mm.

1. Lower back and rump not streaked; middle breast white

Siptornoides virgata (Sclater). (Junin, Peru.)

c2. Size smaller, wing less than 68 mm.

 White streaks on under parts much wider, upper throat rufous tawny Siptornoides flammulata flammulata (Jardine).
 (Andes of Ecuador.)

2. Similar but color of throat extending to upper margin of breast (in adult); whitish streaks on back narrower

Siptornoides flammulata taczanowskii (Berlepsch and Stolzmann).
(Maraynioc, C. Peru.)

 Similar but no rufous tawny on throat; forehead more tinged with rusty; stripes on breast and sides more obscure; blackish marking on tail irregular

Siptornoides flammulata maculicauda (Berlepsch).\*

(Iquico, W. Bolivia.)

4. Whitish streaking on under parts much narrower; throat spot on upper throat deep rusty rufous (in adult)

Siptornoides flammulata multistriata (Sclater).

(Bogota.)

Whole throat (in adult) ochraceous buff or buffy rufous; sides of head more or less buffy rufous

Siptornoides flammulata quindiana (Chapman).

(Paramo de Santa Isabel, Central Andes, Colombia.)

- c¹. Plumage tawny or buffy; upper parts streaked with blackish; breast and sides streaked with dark brown or dusky.
  - Throat spot tawny rufous (adult?) or upper throat plain whitish (immature?)† Siptornoides (Eusiptornoides) hudsoni (Sclater). (Conchitas, Buenos Aires, Argentina.)

<sup>\*</sup> No specimens seen.

<sup>†</sup> See foot note (antea) regarding the variation in coloration of throat in this species.