

NATURAL HISTORY NOTES ON SOME POORLY KNOWN BOLIVIAN BIRDS PART 3

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INTRODUCTION

As with the first two papers in this series (Remsen, Parker and Ridgely, 1982; Remsen, 1984a), the purpose of this paper is to present natural history information on several species of Bolivian birds about which virtually nothing has been written. Most field observations presented herein were gathered during our fieldwork in Bolivia in 1984. Museums were surveyed for specimens of the nine species discussed herein to give as complete as possible picture of their true distributions.

Localities not listed in the recent Neotropical gazetteers (Paynter, Traylor, and Winter, 1975; Paynter and Caperton, 1977; Paynter and Traylor, 1977, 1981; Paynter, 1982, 1985; Stephens and Traylor, 1983, 1985) are placed in quotes, as are those for which only an imprecise locality is available. Localities from Brazil, which lacks a gazetteer, are not differentiated by quotes. Localities recorded in the literature but for which we were unable to locate the specimens are referred to by appropriate literature citation only. The number of specimens for literature-only localities precedes the citation, whereas actual counts of museum specimens follow the appropriate museum abbreviation (see Acknowledgements for abbreviations). Soft part colors were taken from living or freshly killed individuals. Capitalized color names are from Smithe (1975).

Buff-bellied Hermit, Phaethornis subochraceus

Until our fieldwork in 1984, this species had not been collected for over sixty years (1923). It is still known from only 18 specimens from 9 localities in eastern Bolivia and extreme southwestern Brazil as noted below. To put this and other specimen totals in this paper in perspective, we note that a recent survey by Hamel (1986) of all known specimens of the nearly extinct and always rare Bachman's Warbler, *Vermivora bachmanii*, located 332 specimens. **Brazil**: *Mato Grosso*: San Juan Fazenda, Cuiabá River (AMNH 1); Descalvados

(AMNH 1). **Bolivia**: *Dpto. Beni*: 6 km by road SE Trinidad, 175 m, Prov. Cercado (LSMUZ 2); first record for Beni. *Dpto. Santa Cruz*: Buena Vista (CM 3, FMNH 1, LSUMZ 1); Warnes (CM 1); Santa Cruz de la Sierra (CM 1); Río Quizer (ANSP 1, CM 1); "Río Quizer on San Ramón-Concepción road, 300 m, Prov. Nuflo de Chávez" (LSUMZ 4); "24 km by road N Santiago de Chiquitos, along Río Tucavaca, 175 m," *Prov. Chiquitos* (LSUMZ 1). Thus this species has been found at scattered localities in the lowlands of eastern Bolivia and in Brazil near the Bolivian border.

Nothing has been published concerning the natural history of this apparently rare species. We saw it nearly every day in hilly, deciduous forest at the Río Quizer locality above. The hummingbirds fed at red tubular flowers in the forest understory and gave a loud "zeep" note as they flew through the undergrowth, as is typical of all *Phaethornis* species with which we are familiar. Our impression, reinforced by the paucity of specimen records, was that, in our experience, this species occurred in much lower densities than other *Phaethornis* species elsewhere.

Of the recent LSMUZ specimens, the four collected in June and July in Dpto. Santa Cruz were in nonbreeding condition, two were noted as moderate fat, one as light fat, and one as having no fat; and none was molting. The Beni specimens, collected in October, were in breeding condition, had no fat, and one was molting some breast feathers. Body weights are as follows: three males, 3.7, 3.8 and 4.0 g; two females, 3.6 and 3.8 g; and one unsexed (alcoholic), 4.0 g. Of five stomachs examined, three contained insects and one was empty. Soft part colors were as follows: iris brown; maxilla black; mandible basally orange-yellow and distally black; tarsi and toes Fuscous.

Bolivian Earthcreeper, Upucerthia harterti

This furnariid, endemic to Bolivia, is known from only 39 specimens from 15 localities, ranging in elevation from 1430 to 2963 m, in three departamentos in the Andes of the central portion of the country: Bolivia: Dpto. Cochabamba: Ele-Ele, Río Mizque (UMMZ 1); Río Mizque, 5000 ft (ANSP 1); "Río Julpemayo, 30 km S Totora, 2100 m, Prov. Mizque' (EBD 2); Tin-Tin (FMNH 1); Pocona (FMNH 1); Dpto. Santa Cruz: Trigal and Valle Grande (type); Comarapa (FMNH 6, CM 1, UMMZ 1); "2.5 km N Tambo, Río San Isidro (Río Pulquina) Valley, 1500 m, Prov. Cabllero' (LSUMZ 8); "3.8 km by road W Tambo, 1700 m, Prov. Caballero' (LSUMZ 2); Samaipata (ANSP 1). Dpto. Chuquisaca: Sucre, 2600 m (BM 1); Pulque (AMNH 1); Tomina (ANSP 6, AMNH 1, UMMZ 1); Padilla (ANSP 1, USNM 1); 27 km SE Camargo, 18 km W Culpina (FMNH 1). Contrary to the distribution map in Vaurie (1980), the range of this species is not contiguous with that of its closest relative, U. certhioides; there is no record of either species from the lowlands of Bolivia, although certhioides may occur in the unexplored "chaco" in the extreme southeastern section of Prov. Cordillera or Prov. Chiquitos, Dpto. Santa Cruz.

We can find nothing published concerning the natural history of this species.

Near Tambo, we found it daily on steep slopes with dense undergrowth in arid hilly terrain dominated by xeromorphic shrubs and columnar cacti. These earthcreepers were noted frequently in patches of terrestrial bromeliads, as had been pointed out to us by T.A. Parker. We also found it along the edges of large washes where shrub density was relatively high. One bird was found in dense thickets bordering agricultural fields in the floodplain next to the hills. All individuals noted were solitary, wary, and difficult to observe, and were feeding on the ground, often by rummaging in leaf litter and debris, usually within dense vegetation. Alarmed birds often fled by running quickly. Highest densities were found in a very steep, brushy canyon 3.8 km W Tambo, where at least eight were noted in about 1 linear km.

During our June and July visit to the area, the birds were rather silent, only occasionally giving their distinctive, buzzy, loud "bzeeeeep!" call, which was reminiscent of the buzzy calls of Schizoeaca or Scytalopus. The song was heard on only 2-3 occasions and was a very dry, raspy, harsh, descending, bouncingball song reminiscent of that of Cranioleuca pyrrhopia but still drier and harsher. Although current taxonomic treatments place Synallaxis between Upucerthia and Cranioleuca, the similarity in the songs of the latter two, and the difference between their songs and the simple songs of Synallaxis, suggests that the current arrangement (e.g. Meyer de Schauensee, 1966; Vaurie, 1980) should be re-examined.

Of the recently collected LSMUZ specimens, all in late June and early July, none was in breeding condition. Eight lacked any subcutaneous fat and one had "light fat". Six were not molting and three showed some body molt. None of the skulls was scored as more than 25% ossified; it is likely that this species never has a completely pneumatized skull. The mean body weight for males was 24.9 g (23.6-26.2, N = 3) and for females, 22.8 g (21.6-23.8, N = 6); an unsexed alcoholic specimen weighed 23.3 g. All contained insects in their stomachs, and one also contained a tiny mollusk. Typical soft parts were: iris Raw Umber; maxilla blackish; mandible basally pale blending to blackish tip; tarsi and toes Brownish-Olive or gray.

Vaurie (1980) considered *Upucerthia harterti* to be a subspecies of *U. certhioides* of the Chaco of Paraguay and Argentina. Vaurie's reason was that the two taxa "do not differ by any character which seems to be of species importance in *Upucerthia*, and all the differences which distinguish them are relative and a matter of degree." Although we do not have the series of *certhioides* that would allow us to examine Vaurie's claims that certain populations approach *harterti* in coloration, we feel that, in view of Vaurie's consistent dismissal of pronounced geographic variation in the Furnariidae as trivial (Fitzpatrick, 1982; JVR, pers. obs.), Vaurie's claims require corroboration and his cursory, qualitative examination does not warrant a change in current taxonomy.

Buff-browed Spinetail, Synallaxis (azarae) superciliosa

This spinetail is known from 91 specimens and 29 localities from Dpto.

Cochabamba, Bolivia, to Prov. Tucumán, Argentina, as follows: Bolivia: Dpto. Cochabamba: "Carahuasi, 2900 m (250 km E Cochabamba)" (IML 1); "Quebrada Majón, 6.6 km by road beyond López Mendoza, at km 98 from Cochabamba, 3150-3250 m, Prov. Carrasco'' (LSUMZ 4), Dpto. Santa Cruz: Samaipata (UMMZ 4, ANSP 1; type of samaipatae); Santa Ana, Prov. Valle Grande (1, Cory and Hellmayr 1925). Dpto. Chuquisaca: Río Azuero (ANSP 6); 25 km E Padilla (ANSP 2); 16 km N Monteagudo (FMNH 1). Dpto. Tarija: Entre Ríos (ANSP 1); Yacuiba (CM 1). Argentina: Prov. Jujuy: San Lorenzo (Cory and Hellmayr, 1925); Arenal (MLP 2, IML 1). Prov. Salta: La Caldera, 10 km S límite con Jujuy (AMNH 1); Río Santa María (MACN 2); Rosario de la Frontera (IML 1). Prov. Tucumán: Concepcion (MACN 9, FMNH 7, ZMC 3); above San Pablo (AMNH 14); Villa Nougués, 1000 m (AMNH 1, IML 1); San Javier (type specimen); Cerro San Javier, 1000 m (IML 1); San Pedro de Colalao (IML 1); Tafí Trail (AMNH 8); above Tafí Trail (AMNH 1); Tafí, 600 m (IML 2); Tafí Viejo, 700 m (IML 4, MACN 2); Sarmiento (AMNH 1); Horco Molle (AMNH 1); Aconquija (IML 1). Also, there are sight records from *Prov. Catamarca*: "Cuesta del Clavillo" and "Balcosna de Afuera" (Nores and Yzurieta, 1983a). The populations from Dptos. Cochabamba and Santa Cruz occur at relatively high elevations, from 1630 to 3250 m, but from Dpto. Chuquisaca south, specimen localities are at much lower elevations, from 400 to 1500 m.

Virtually nothing has been written concerning the natural history of this species other than O1rog's (1979) statement that in Argentina, it occurs in the lower strata of humid montane forest, 1000-2500 m. Narosky et al. (1983) summarized the fragmentary information on this species' nest and eggs. Synallaxis superciliosa was scarce at Quebrada Majón (see Compsospiza garleppi account), where single individuals were noted on only 4 of 16 field days, always in dense thickets of Polylepis and mixed species of shrubs.

Of the four recently collected LSUMZ specimens, all from May or August, three were males in adult plumage with partly (10-20%) pneumatized skulls, and one was in juvenal plumage with a 5% pneumatized skull. None was in breeding condition, none showed more than light fat, and all stomachs contained insects. One stomach also contained two brown seeds 3 x 2 x 2 mm, and another contained three apparent insect eggs 2 x 1 x 1 mm. Body weights for the adults were 9.9, 12.0 and 14.0 g, and for the juvenal, 11.5 g. Typical soft part colors were: iris Amber; maxilla black; mandible Medium Neutral Gray; tarsi and toes Olive-Gray. The juvenal's soft parts were: iris Cinnamon Bown; maxilla Fuscous; mandible Flesh; and tarsi and toes Glaucous.

Within the genus Synallaxis, S. superciliosa traditionally has been considered most closely related to S. ruficapilla, S. poliophrys, or S. frontalis (Cory and Hellmayr, 1925; Peters, 1951; Meyer de Schauensee, 1966; Vaurie, 1980). We, however, feel that it is most closely related to Synallaxis azarae, a species that occupies an elevational range similar to that of S. superciliosa in the Andes from Cochabamba north to Venezuela. Although all of the above taxonomic arrangements place azarae very close to superciliosa, none proposed that the two are sister taxa. Not only are superciliosa and azarae generally

Table 1. Extent of eyebrow in population of Synallaxis azarae and S. superciliosa.

Population	Number of specimens (% total)			
	None	trace	moderate	strong
S.a. ''infunata'' (Huánuco, Pasco)	24 (100)	- 2		
S.a. ''urubambae'' (Cuzco)	13 (100)	-	_	(2)
S.a. ''carabayae'' (Puno)	4 (80)	1 (20)	-	-
I.a. azarae (La Paz)	5 (33)	8 (53)	2 (13)	-
i.a. azarae (Cochabamba)	3 (19)	6 (38)	5 (31)	2 (13)
S.s. samaipatae (Coch., Santa Cruz)	n e	- '	- 1	4 (100)
S.s. superciliosa (Argentina)	-	-	-	2 (100)

distributed parapatrically, at similar elevations in similar habitat, but two subspecies of azarae, S. a. ochracea of southern Ecuador and northwestern Peru and S. a. elegantior of Colombia, are very similar to superciliosa in plumage, more so than either is to most other subspecies of azarae. (Contra Vaurie, 1980, elegantior and other northern forms are best considered subspecies of S. azarae; T.S. Schulenberg and T.A. Parker, in prep.). In fact, these taxa together are an example of the "leap-frog" pattern of geographic variation (Remsen, 1984b). Other taxa with a similar pattern of variation, i.e. with the populations of the western Andes more similar to those of the southern Andes of Bolivia than either is to intervening taxa in Peru, are Ochthoeca (frontalis) jelskii and O. f. boliviana, Cyanolyca (viridicyana) turcosa and C. v. viridicyana, Chamaepetes goudotii fagani and C. g. rufiventris and Rupicola peruviana sanguinolenta and R. p. saturata.

Although Synallaxis superciliosa has always been recognized as a species distinct from S. azarae, we here propose that it is best considered as only a subspecies of the latter. Of the discussions of geographic variation in S. azarae (e.g., Zimmer, 1936; Cory and Hellmayr, 1925; Vaurie, 1980), only Chapman (1926: 430) recognized the striking similarity between some subspecies of azarae (see above) and superciliosa. Furthermore, JVR's examination of geographic variation in azarae populations from Dpto. Huánuco, Peru, to Dpto. Cochabamba, Bolivia, an area that includes the darkest and therefore least superciliosa-like subspecies, reveals that most characters regarded as diagnostic of superciliosa are present to varying degrees in populations of azarae. In fact, superciliosa represents the endpoint in clines of three characters within azarae populations. For example, the distinct eyebrow of superciliosa appears with increasing frequency in azarae populations as one approaches their area of contact (Table 1). With respect to the narrow frontal band of superciliosa, its extent decreases clinally in azarae, from broad in Dpto. Huánuco to narrow in Cochabamba. With respect to the pale ventral coloration of *superciliosa*, many specimens of azarae from Prov. Chapare, Cochabamba, approach superciliosa in paleness. Finally, the northern subspecies of superciliosa, S. s. samaipatae, is intermediate in dorsal coloration and extent of frontal band between nominate superciliosa and nominate azarae from Prov. Chapare. In our small samples of samaipatae there is also a suggestion that samaipatae may be intermediate in eyebrow color between S. s. superciliosa (tawny) and S. a. azarae (buffy).

A series of 19 skins of azarae from Prov. Chapare, Cochabamba, shows great variability in development of the eyebrow (Table 1) and other characters critical in the diagnosis of superciliosa. In belly color, some (e.g., CM 85710) are as dark as the darkest LSUMZ specimens of S. azarae from Peru, whereas others (e.g., CM 119737) are as pale as topotypes of S. s. samaipatae. The width of the frontal band varies from as much as 6-7 mm to as little as 3 mm, and some individuals (e.g., CM 85054) have most feathers tipped rusty, as in samaipatae. Some individuals (e.g., CM 119739) have as much white in the sides of the throat as topotypical samaipatae. Back color varies from nearly all gray to as brown as topotypical samaipatae. Crown color varies from ochraceous to chestnut. Additionally, two specimens from "Yungas of Cochabamba, 1500 m" (CM 85348, 85385), a locality not possible to locate precisely, are particularly perplexing in showing mostly characters of samaipatae except in lacking an eyebrow.

One interpretation of this variability would be to assign the extreme specimens in the series to *samaipatae*, with the consequence that *azarae* and *superciliosa* would then be sympatric. This is apparently what Vaurie (1980) did, although the 300 km area of sympatry in his range map is inexplicable. We believe, however, that this variability indicates introgression from true *samaipatae* populations in southern Cochabamba.

Information concerning vocalizations of *samaipatae* is consistent with its treatment as a subspecies of *S. azarae*. The typical call of *samaipatae* is a double-noted "ka-kwéeek" virtually identical to that of *azarae* populations further north (R. S. Ridgely, *in litt.*).

Therefore, we believe that all available information supports the treatment of *S. superciliosa* as a subspecies of *S. azarae*.

It should also be noted that although the type locality for *S. azarae*, "Carcuata" (= Cajuata), is usually given as being in Dpto. Cochabamba (e.g., Peters, 1951), it is actually in Dpto. La Paz (Paynter, Traylor, and Winter, 1975). So, the La Paz populations traditionally included in *S. a. carabayae* are actually referable to the nominate race. In view of the variability of the Cochabamba population, reassignment of the type locality to La Paz is fortunate.

Examination of azarae specimens from Huánuco to Cochabamba left many doubts as to the validity of the four subspecies described within this region. Zimmer (1936) considered S. a. carabayae of Puno to be the darkest subspecies, with infuscata of Huánuco and Pasco slightly paler, and then



urubambae and the nominate race slightly paler still. The LSUMZ specimens from these areas show no consistent pattern, with the darkest specimens from Dpto. Puno not as dark as some individuals from Machu Picchu (urubambae) or Huánuco (infuscata) and matched by some individuals from the nominate race. Individual variation in birds in adult plumage is extensive, particularly in the Cochabamba populations as noted above. The width of the frontal vand is clinal, as is the extent of the eyebrow. Although a more thorough examination is clearly needed, we feel that the named subspecies are evidently arbitrary points on a cline and that all those from Huánuco south to Cochabamaba should be merged into one form, S. a. azarae.

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Stripe-backed Antbird, Myrmorchilus strigilatus

This odd antbird is known from at least 224 specimens from 73 localities from two disjunct regions, one in dry northeastern Brazil and the other from extreme southwestern Brazil and southern Bolivia to northern Argentina and Paraguay, Brazil: Piaui: Arara (FMNH 5): Parnaguá (AMNH 4: 1 in Vienna Museum, fide Cory and Hellmayr 1924). Ceará: Varzea Formosa (FMNH 4); Juá, near Iguatú (FMNH 2). Pernambuco: Garanhuns (AMNH 2); Rio Branco (AMNH 2); Fazenda Amapá, Agrestina, 550 m (MZUSP 1). Alagoas: Palmeira dos Indios, 300 m (MZUSP 1). Bahia: Tamburi (AMNH 3); Irquy (AMNH 1); Santa Rita (AMNH 2); Santa Rita de Cássia, Rio Preto, 440 m (LACM 3, MZUSP 3); Barra, 400 m (MZUSP 8, AMNH 1); Barra do Rio Grande, Fazenda da Serra (3, Cory and Hellmayr, 1924); Joazeiro, 384 m (MZUSP 1); Sincorá (AMNH 1); Lamarão (AMNH 2); Cachoeira, Rio Paraguassú (MNRJ 1); Lapa do Bom Jesus (MNRJ 7); Euclides da Cunha (MNRJ 1); "Bahia" (BM 2, USNM 2). Paraiba: Curema, 250 m (MZUSP 6, LACM 2). Minas Gerais: Divisópolis (MNRJ 1); Almenara (Sick 1985). Mato Grosso: Corumbá (MZUSP 1); Urucum, near Corumbá (AMNH 6). Bolivia: Dpto. Santa Cruz: Palmarito (CM 1); Lagunillas (ANSP 2); Charagua (MCZ 1); Curiche (CM 1); "Proyecto Abapó-Izozog, ca. 35 km E Abapó, 375 m, Prov. Cordillera" (LSUMZ 13); 8 km N Gutiérrez (FMNH 2); "Laguna Caucaya, 10 km E Gutierrez, 1100 m, Prov. Cordillera" (DMNH 1, LSUMZ 1); "Cerro Colorado, Chaco, Prov. Cordillera" (EBD 3); "Estancia Perforacion, Chaco, Prov. Cordillera" (EBD 1); Buyuivi (MACN 1); Valle de Tucabaca (FMNH 4); Santiagoma (FMNH 1); Santiago de Chiquitos (FMNH 2); 20 km W Santiago de Chiquitos (FMNH 5); *Dpto. Tarija*: Fortín Campero (ANSP 8); "5 km NNE Capirenda," Prov. Gran Chaco (LACM 2); Villa Montes (ANSP 5, UMMZ 2); Yacuiba (MACN 2, ANSP 1, CM 1); "Laguna Palmar, 2 km S, 10 km E Tiquipa (12.4 km by road ESE Tiquipa), 555 m" (DMNH 1). Paraguay (departmental designations follow Paynter and Caperton, 1977): Chaco: 256 km W Puerto Casado (MACN 4, UMMZ 6); "29 km by road N Fortin Madrejón" (UMMZ 1). Alto Paraguay: Puerto Casado (FMNH 1); Puerto Guaraní (MACN 1). Boquerón: Colonia Fernheim (FMNH 1); "50 km S Orloff" (ZFMK 2); Filadelfia (ZFMK 1); "210 km S Filadelfia" (ZFMK 1). Presidente Hayes: Lichtenau (AMNH 9); Fortín Juan de Zalazar (DMNH 1, YPM 1); 80 km W Pinasco (AMNH 3); Waikthlatingmayalwa (Cory and Hellmayr, 1924); Fort Wheeler (AMNH 5). Also "Paraguay" (USNM 2). Argentina: Prov. Jujuy: San Lorenzo (Cory and Hellmayr, 1924); Yuto

(AMNH 2, MACN 1, ZFMK 1); Fraile Pintado, Río Lavallén (IML 2); "Jujuy" (MCZ 1). *Prov. Salta*: Río Bermejo, near Orán (AMNH 1, CM 1, USNM 1); Orán (IML 2); Miraflores (Machomuerto) (CM 3); Macho Muerto, 350 m (IML 1); Embarcación (AMNH 2, CM 3); Río Seco (AMNH 2); Manuel Elordi, 500 m (MACN 3); El Cedral (MACN 6, IML 1); Aguaray, 700 m (MACN 1). *Prov. Formosa*: "Río Patiño, Dpto. Patiño" (IML 1); km 182, 10 mi. NW Riacho Pilagá (USNM 5). *Prov. Santa Fe*: Tostado (MACN 2). Sight records also exist for *Prov. Chaco*: Tres Isletas (Narosky, 1984) and *Prov. Santiago del Estero*: Reserva de Copo y Cuel. M. L. Rico (Nores and Yzurieta, 1983b).

Virtually nothing has been published concerning the natural history of this species other than brief notations such as "amongst low bushes in monte" (Kerr, 1901). At the Proyecto Abapó-Izozog locality above, Myrmorchilus strigilatus was one of the most common birds, with 20-30 recorded daily. The habitat there was a deciduous thorn forest of low stature, with most trees and shrubs under 6 m in height; some trees were as tall as 15 m. The antbirds remained concealed in the dense undergrowth and fed on or near the ground by hopping, often in the vicinity of large terrestrial bromeliads. Most individuals were solitary, but some seemed to associate in pairs. The most common call was a clear, imitatable whistle of about 1 sec duration "wheeeeeeEEEEoo" ascending to an accented portion followed by an abrupt descent. Sometimes this by a "whick" note that made the call sound like a "wolfwas introduced whistle." The song, heard much less frequently, was a series of about 5 buzzy, descending "bzeee" notes, the terminal one slightly downward inflected. Recordings of all vocalizations were deposted at the Florida State Museum.

Current taxonomic arrangements (e.g., Peters, 1951; Meyer de Schauensee, 1966) place the monotypic genus Myrmorchilus near the genera Myrmotherula, Dichrozona, Herpsilochmus and Microrhopias quixensis. From our observations of vocalizations and behavior, we see no obvious relationships of Myrmorchilus to any of these. Rather, in plumage it bears greater resemblance to Formicivora (as noted by Sick, 1985) and Drymophila, two genera that share a predominately southern South American distribution with Myrmorchilus (as pointed out to us by T.A. Parker).

Of the recent LSUMZ specimens, all from April, July or August, mean body weight for males was 24.4 g (21-26.4, N = 11) and for females, 23.4 g (22-26.3, N = 6); all were scored as "no fat" or "light fat" except for a "moderate fat" August male; none showed molt except for a trace on the back of the only April specimen. None was in breeding condition. All stomach contents contained insects. Typical soft part colors were: iris dark brown or Raw Umber; maxilla black; mandible variable, from black with pale gray tomium to gray to pale neutral gray with dark tip; and toes smoke gray to brownish olive.

Sulphur-bellied Tyrant-Manakin, Neopelma sulphureiventer

This manakin is known from 84 specimens from 29 localities in

southwestern Amazonia. Brazil: Acre: Sena Madureira, Area do Triangulo (MPEG 1); Mato Grosso: Vila Bela de Mato Grosso (= Vila Bela da Santíssima Trindada) (3, Hellmayr, 1929); "Mato Grosso" (BM 1). We are unable to locate specimens for western Amazonas as indicated in the range of this species by Snow (1979). Peru: Dpto. San Martín; El Tingo (ANSP 1); Shapaja (ANSP 1). Dpto. Ucayali: Balta (LSUMZ 1) (first record for Ucayali). Bolivia: Dpto. Pando: "ca. 12 km by road S Cobija, ca. 8 km W on road to Mucden, 325 m, Prov. Nicolás Suarez'' (LSUMZ 1); Victoria (9, Gyldenstolpe 1945a); Dpto. Beni: Rurrenabaque (ZFMK 1); Bala (ZFMK 1); Riberalta (12, Gyldenstolpe 1945a); 25 km S Riberalta (LSUMZ 1); "Río Iténez, Fuente Costa Márguez" (AMNH 2); "Río Glacé, 26 km de la boca" (AMNH 1); "San Joaquín, Río Mamoré" (ANSP 1); *Dpto. La Paz*: "Ixiamas, 221 m, Prov. Iturralde" (LSUMZ 2): Chiñiri (ANSP 4, UMMZ 2): Río Kaka, Teoponte (ANSP 1): "Río Beni, ca. 20 km by river N Puerto Linares, 600 m" (LSUMZ 10). Dpto. Cochabamba: Río San Mateo (1, Hellmayr, 1929); Todos Santos (ANSP 4, FMNH 4); mouth Río Chapare (ANSP 1); Dpto. Santa Cruz: Buena Vista (CM 2, FMNH 1, LSUMZ 1, UMMŽ 1); Río Surutú (CM 3); Río Ichilo (FMNH 1); Palmarito (CM 1): Cercado (FMNH 1): "Río Ouizer on San Ramón-Concepción road, 300 m, Prov. Nuflo de Chávez' (LSUMZ 1); "W. bank Río Paucerna, 4 km upstream from Río Itenez, 450 m, Prov. Velasco" (LSUMZ 5); "10 km SSW Piso Firme, Prov. Velasco" (LSUMZ 1). Thus this species is found mainly in the lowlands of Bolivia in the Beni drainage. The populations in Peru and Acre are apparently disjunct, because numerous intervening localties in Madre de Dios, Cuzco, and Pasco have been sampled extensively.

Our experience with this species from the Río Beni and Río Quizer localities above indicates that it is an inconspicuous inhabitant of dense undergrowth, almost always in riverine forest and usually in or near bamboo thickets. Although all of our 15 observations were in or within 10 m of extensive bamboo thickets, we hesitate to call this species a bamboo specialist without larger sample sizes. The geographic distribution of this species is similar to that of birds considered to be bamboo specialists, although it is apparently absent from areas rich in bamboo specialists in Dpto. Madre de Dios, Peru (Parker and Remsen, unpubl. data). Because this species is very wary, we were unable to obtain foraging data. However, of 12 stomachs examined, 9 were full of arthropod parts, 1 contained fruit skins and 2 were empty; thus, in contrast to most piprids, it does not seem to be frugivorous.

The plumage resembles that of a tyrannid flycatcher so closely, especially with the presence of a yellow coronal patch, that one specimen was described as a new flycatcher taxon (Myiopagis viridicata huallagae; Carriker, 1934). The call note is a series of 3-4 doubled, hoarse, almost frog-like, low-pitched, raspy, scolding notes that do not immediately recall call notes of any manakins or tyrannids in particular. Transcriptions of the vocalizations of N. aurifrons by Sick (1985) indicate that the two species have similar voices. Although recent allozyme comparisons (Lanyon, 1985) were consistent with the current classification (Snow, 1979) of Neopelma as a piprid, an analysis based primarily on syringeal and cranial morphology indicated that it is not a piprid and is more closely related to tyrannids (Prum and Lanyon, 1989).

Of the 17 recent LSUMZ specimens, all were adults with completely pneumatized skulls, taken in June, August and October, and none was in breeding condition: 15 were noted as having no fat or light fat, and 2 were marked as having moderate fat; and none was undergoing body molt. Mean body weights were as follows: males = $17.3 \, \text{g} \, (15-19.4 \, \text{g}, \, \text{N} = 12)$; females = $14.5 \, \text{g} \, (14-16 \, \text{g}, \, \text{N} = 5)$. Typical soft part colors are as follows: iris very pale gray, dull yellow, cream, or orange-brown; maxilla black; mandible light gray, sometimes with blackish tip; tarsi fleshy gray; toes gray.

Cochabamba Mountain-Finch, Poospiza (Compsospiza) garleppi

This finch has one of the most restricted distributions of any South American bird and until our 1984 fieldwork, had not been collected since 1937. It is known from only 10 localities in southern Dpto. Cochabamba, Bolivia, and from only 63 specimens. Bolivia: Dpto. Cochabamba; Vacas (type): Tiraque (ANSP 11, FMNH 2, MCZ 2, AMNH 1, USNM 1, UMMZ 1, ZMC 1); Pocona (CM 2); Colomi (CM 1, ZFMK 1); Liriuni (SMNH 8, BM 1); "Quebrada Majón, 6.6 km by road beyond López Mendoza, at km 98 from Cochabamba, 2950-3150 m, Prov. Carrasco'' (LSUMZ 7); "120 km de Cochabamba en dirección a Santa Cruz de la Sierra, 3500 m, Prov. Carrasco" (EBD 1); "Faldas del Mte del Abra, 3200-3260 m" (SMNH 1); "Cerro Huacanqui, 3800-4000 m'' (SMNH 19); "Toncoma, 3200-3250 m'' (SMNH 2). All localities are from 2950 to 3650 m, except for Pocona at 2658 m. Published natural history information on this species is scarce. Berlepsch (1893) reported G. Garlepp's observations from the type locality; Garlepp noted that this species was usually seen in pairs, often rested for a while in bare branches of shrubs, and was wary. Vuilleumier (1969) saw one bird in Polylepis woodland mixed with cultivated land. Our experience with this finch in the Quebrada Majón area indicated that it is a conspicuous and common inhabitant of *Polylepis* sp. woodland. Quebrada Majón is in a fairly typical inter-Andean valley in Bolivia, i.e., with steep, often rocky slopes with patchily distributed Polylepis woodlands as well as various shrubs, herbaceous plants, bunch grasses, and scattered agricultural clearings. Along the stream itself are thickets of Baccharis sp., Hesperomeles sp., Alnus sp., Brachyotum sp., Berberis sp., Polylepis sp. and other shrubby species, some of which are very dense. The Polylepis woodland was more common in wetter, more sheltered slopes, and so formed more extensive woodlands on south and southwest-facing slopes. In the more isolated and uncut areas, *Polylepis* trees attained heights averaging 6 m, and in some areas, individual trees reached 7 m in height. At least two species of Puya spp. were found in this area as well.

At Quebrada Majón, CGS and DCS saw C. garleppi on 10 of 16 field days. At least 90% of the observations of Cochabamba Mountain-Finches were of birds perched in *Polylepis*. On one occasion, two individuals were observed pecking and scratching on the ground. Most observations were of one or two individuals, most of which were relatively tame and easily approached. On 4 May 1984, two adults were feeding what appeared to be insect larvae to a juvenal capable of at least short-distance flights.

Because *Polylepis* in this area is used extentisively for firewood and to a lesser extent for building and thatching material, and because the woodlands are also being cleared for agriculture (particularly potatoes, wheat, beans and other vegetables), populations of this species are vulnerable. In view of the very limited geographic range of this species and its restriction to a threatened habitat, we strongly recommend that conservation efforts be taken on its behalf. A survey of the extent of *Polylepis* woodlands in the region would be particularly important. Parker (1981) discussed birds restricted to *Polylepis* woodland in Peru and their conservation problems.

Of the recent LSUMZ and EBD specimens, two adult males both weighed 35 g, and another male in the same plumage but with skull 75% ossified weighed 33 g. An adult female weighed 34.5 g, and a female in apparent adult plumage but with skull 50% ossified weighed 32.5 g. An unsexed alcoholic specimen weighed 33.5 g. None was in breeding condition (May and August), none was molting, and only one had subcutaneaous fat ("light", the young male). The adult female (EBD 3671A) had apparent parasitic worms (nematodes?) in its muscle mass. Typical soft part colors were: iris Cinnamon Brown; maxilla Blackish Neutral Gray; mandible Medium Neutral Gray; tarsi and toes Fuscous or Burnt Umber. Stomachs contained small seeds and grit; one also contained insects. Two additional specimens, collected on 5 and 6 May, were in juvenal plumage. This plumage, previously undescribed, is as follows: entire dorsal surface and face uniform gray-fuscous; wings fuscous with coverts and secondaries edged olive-fuscous; tail fuscous with inner rectrices with faint olive-fuscous and buff, the former predominating; throat, breast and flanks broadly and obscurely streaked with gray-fuscous and buff, the former predominating; the gray-fuscous streaks become narrower and more distinct towards the center of the belly and undertail coverts, where buff is the predominant color; iris Raw Umber; maxilla dusky brown or Fuscous; maxilla buff or buff with Fuscous edges; gape buff; tarsi and toes buff yellow, fuscous on upper surface of one. The female weighed 32 g and the male 27.5 g. Their stomachs contained seed fragments and insects.

Fulvous-headed Brush-Finch, Atlapetes fulviceps

This species is known from 124 specimens from 34 localities in the Andes, mainly from 1500 to 3200 m, from Dpto. La Paz to northern Argentina. Bolivia: Dpto. La Paz: Tilotilo (BM 1). Dpto. Cochabamba: Pocona (FMNH 8, CM 2, UMMZ 1); Totora (FMNH 1); Tin-Tin (FMNH 1); Tujma, 8200 ft. (AMNH 3); Liriuni (SMNH 18, EBD 2); "Pilpina, 2490-2700" (SMNH 1); "Quebrada Majón, 6.6 km by road beyond López Mendoza, at km 98 from Cochabamba, 3150-3250 m, Prov. Carrasco" (LSUMZ 7); "120 km de Cochabamba a Santa Cruz de la Sierra, 3500 m, Prov. Carrasco" (EBD 1). Dpto. Santa Cruz: Santa Ana, Prov. Valle Grande (1, Hellmayr, 1938); Dpto. Chuquisaca: Padilla (ANSP 7, UMMZ 1); Tomina (ANSP 5, UMMZ 1); 25 km É Padilla, 8200 ft. (ANSP 4); 34 km SE Padilla, Prov. Tomina, 7800 ft. (FMNH 1); Río Bermejo (1, Hellmayr, 1938). Dpto. Tarija: 80 km S Tarija, 6400-7000 ft. (FMNH 9); 67 km E Tarija, 7400 ft. (FMNH 5); ca. 108 km ENE Tarija, 6400 ft. (FMNH 4); 25 km NW Entre Ríos, 5400 ft. (FMNH 2)

(first records from Tarija). "Bolivia" (1, Hellmayr, 1938). Argentina: Prov. Jujuy: Abra de Canas (IML 3); El Jordán (IML 1); Alto Calilegua, 2800-3000 m (IML 6); El Duraznillo, Calilegua, 2600-2700 m (IML 6, CM 1, UMMZ 1); El Duraznillo, Alto Calilegua, 3000 m (IML 2); Valle Grande, Serranía de Calilegua (MLP 2); Valle Grande, 1700 m (MACN 2); "Valle Colorado, 3700 m, Dpto. Valle Grande" (IML 2); San Francisco, 1500-1800 m (IML 2, MACN 1); "La Quesera" (MACN 1); Termas de Reyes, 1850 m (ZMC 2). Prov. Salta: Los Toldos (IML 1); Valle de Lerma (MACN 1); Lesser (Hellmayr, 1938); Corralito (MACN 1). The latter locality, at 200 m (Paynter, 1985), is lower by 1000 m than any other for this species. The furthest south record is the sight record by Nores and Yzurieta (1981) at Quebrada San Lorenzo. Paynter (1978) noted that this species was apparently very rare in Argentina; the compilation of localities above and recent fieldwork in Argentina (M. Nores, in litt.) indicate that this is not the case.

Paynter (1978) could find nothing published concerning the habitat and habits of A. fulviceps. Observations of this species at Quebrada Majón (see Compsospiza garleppi account) were limited. It was wary and difficult to observe; only six individuals were detected (on five separate days) in 16 days of fieldwork by CGS and DCS. They were seen within 1-2 m of the ground in dense shrub thickets (Polylepis sp., Alnus sp. and Berberis sp.) within 10 m of a small stream that drained the Polylepis woodland. M. Nores (in litt.) has found this species to be common in alder woodland in Salta and Jujuy, where groups of up to 10 individuals were seen.

Of the eight recently collected LSUMZ and EBD specimens, all in May and October, five were adults with completely ossified skulls. A male weighed 32.5 g, and the three females with weights were 26.9, 27.5 and 32 g. None was in reproductive condition, none was molting body feathers, and all showed no fat or "light fat". Soft part colors were: iris Amber or Raw Umber; bill Blackish Neutral Gray; and tarsi and toes Olive-Brown or Burnt Umber. All stomachs contained small seeds and grit. Three specimens had skulls that ranged in degree of ossification from 5 to 95%; none showed noticeable plumage differences from the adults. The body weights of two males with skulls 5-10% pneumatized were 32.4 and 34.9 g; the female with skull 95% pneumatized weighed 32.2 g; and two unsexed alcoholic specimens weighed 26.5 and 31.5 g.

Rufous-bellied Saltator, Saltator rufiventris

This saltator is known from only 60 specimens from 17 localities in Dptos. La Paz, Cochabamba, and Chuquisaca, Bolivia, mainly 2570-3500 m elevation, and from an apparently disjunct population at one locality in extreme northwestern Argentina. Bolivia: Dpto. La Paz: vicinity of Inquisivi (type). Dpto. Cochabamba: near Palca (2, Hellmayr, 1938); Cochabamba, 2570 m (LSUMZ 11); "Parque Nacional Tunari, 25 km NE Cochabamba, 3000 m" (EBD 1); "Parque Nacional Tunari, ca. 20 km NE Cochabamba, 3300 m" (EBD 1); Tiraque (ANSP 2, AMNH 1); Caluyo, 3500 m (CM 1); Pocona (FMNH 14, UMMZ 2, CM 1); Liriuni (SMNH 4, FMNH 1); Tutimayo (ANSP 1); "Toncoma, 3200-3250 m" (SMNH 5); "Pilpina, 3300 m" (SMNH 1);

"Quebrada Majón, 6.6 km by road beyond López Mendoza, at km 98 from Cochabamba en dirección a Santa Cruz de la Sierra, 3500 m, Prov. Carrasco" (EBD 2); "Bellavista, 25 km N Quillacollo" (EBD 1). *Dpto. Chuquicaca*: El Cabrada, Posta (BM 1). Argentina: *Prov. Jujuy*: El Duraznillo, Alto Calilegua, 3000 m (IML 1; elevation given as 2800 m *in* Olrog and Contino, 1970).

Virtually nothing has been published concerning the natural history of this species. It was seen by CGS and DCS on 10 of 16 field days in the Quebrada Majón area, 4-13 May and 18-23 August 1984, where it was fairly common and conspicuous. Like Compsospiza garleppi (see above), this species was closely associated with Polylepis woodland, although it was often seen in shrubby thickets and occasionally in agricultural fields. Generally, observations were of one to three individuals, but on one occasion, a group of five was pecking the ground in a plowed field. During the May fieldwork, Rufous-bellied Saltators were seen eating the purplish-red fruits of the 1.5-3 m tall Berberis sp. and Heteromelas sp. shrubs that were common in the area. Other bird species noted feeding on these fruits were Turdus fuscater, Ampelion rubrocristatus and Saltator aurantiirostris. The vocalization most frequently given by S. rufiventris was a soft "phueet-phueet" and a louder "whueet-whueet". These call notes were somewhat less harsh and lower than those of S. aurantiirostris, which often associated with S. rufiventris.

Although Saltator rufiventris has a larger range than, and is less restricted to Polylepis woods than, Compsospiza garleppi, on a world scale, it is still a very restricted and potentially vulnerable species.

Of the 15 recent LSUMZ specimens, all collected in May or August, none was in breeding condition except for a 9 May female that was intermediate. All showed "no fat" or "light fat". Half of the May adults were molting but none of the August adults, all of which were in fresh plumage, was molting. Birds in juvenal plumage were collected in both May and August. Mean body weight for adult males was 76.4 g (68-80.5, N=4), for adult females 75.3 (67.8-79.8, N=6), for juvenal males 69.0 (65-73.1, N=3), and the juvenal female weighed 72.3 g. Two unsexed alcoholic specimens, both adults, weighed 71 and 78 g. The stomach contents of all birds contained vegetable matter, either green plant fibers or fruit seeds ranging in size from 6 x 3 to 7 x 4 mm. Typical soft part colors of adults were: iris Amber; bill Dusky Brown with base of mandible Cream; tarsi and toes Fuscous. Soft parts of juvenals were similar except that the bill, especially the mandible or the tip, was paler.

Velvet-fronted Grackle, Lampropsar tanagrinus

This species is known from at least 352 specimens from 78 localities in the Amazon and Orinoco. Venezuela: Sucre: Carúpano (Hellmayr, 1937); El Pilar (AMNH 2); Caño Guanoco (Hellmayr, 1937); Monagas: Río Guarapiche (AMNH 1); Caño Vagre (Hellmayr, 1937); Río Guanipa (Hellmayr, 1937). Delta Amacuro: "Caño Mariusa, 150 km NE Barrancas, Río Orinoco Delta" (LACM 1). Bolívar: Ciudad Bolívar (1, Hellmayr, 1937). Amazonas: Munduapo, Río Oronoco (AMNH 5; +2, Hellmayr, 1937). Dpto. unknown:

"Carapita" (YPM 1). Also "Venezuela" (MZSUP 1). Guyana: North West: Koriabo (YPM 1). Also "Br. Guiana" (type of L. t. guianensis). Three additional sight records for Guyana are listed in Snyder (1966). Brazil: Pará: "Pará" (3, Hellmayr, 1937). Amazonas: Barra do Rio Negro (A. Hellmayr, 1937); Panelas Is., Tonantins, Rio Solimões (CM 2); Caviana, Rio Solimões (CM 1); Rio Urubú, N Rio Amazonas, 60 m (MZUSP 3); San Isidro Tefé (AMNH 4); Tefé, Rio Solimões (AMNH 1); Lago do Baptista, S Rio Amazonas, 50 m (MZUSP 3, FMNH 1); Itacoatiará, N Rio Amazonas, 80 m (MZUSP 2); Igarapé Anibá (Gyldenstolpe, 1945b; Codajás (Gyldenstolpe, 1945b); Estirão do Equador, Rio Javari (LSUMZ 2, MPEG 1); Rio Javari (BM 1, USNM 1; both presumably Brazil); Santo Antonio, Rio Eirú, (24, Gyldenstolpe, 1945b; AMNH 1, FMNH 2); Santa Cruz, Rio Eirú (20, Pinto, 1944); Eirunepé, Rio Eirú, 130 m (MZUSP 36); João Pessoa, Rio Juruá (10, Pinto, 1944; 8, Gyldenstolpe, 1945b); Igarapé do Gordão, Rio Juruá (1, Glydenstolpe, 1945b); Lago Grande (8, Gyldenstolpe, 1945b); Rio Juruá (AMNH 2); São Paulo do Olivença, Rio Solimões (CM 2); Lago Berury (3, Gyldenstolpe, 1951); Aruma (2, Gyldenstolpe, 1951; CM2); Reden ção, Rio Purús (7, Gyldenstole, 1951; ÙMMZ 1); Jaburú, Rio Purús (9, Gyldenstolpe, 1951); Labrea, Rio Purús (2, Gyldenstolpe, 1951); Hyutanahán (= Huitanaã), Rio Purús (CM 8, YMP 4); Cachoeira, Rio Purús (MPEG 2); Bom Lugár, Rio Purús (Hellmayr, 1937); Porto Alegre, Rio Purús (MPEG 1); Borba, Rio Madeira (AMNH 8); Manicoré, Rio Madeira (1, Hellmayr, 1937); Humaita, Rio Madeira (1, Hellmayr, 1937). Acre: Cruzeiro do Sul, Rio Juruá (MPEG 2). Mato Grosso: Braco do Jaracatea, Rio Guaporé (Gyldenstolpe, 1951). Edo. unknown: Barra (BM 1); Igarapé Amara (AMNH 12); San Antonio de Uayara (AMNH 8). Colombia: Caquetá: Tres Esquinas (Dugand and Borrero, 1946). Amazonas: Isla de Santa Sofía and Quebrada Tucuchira, ca. 20 miles northwest of Leticia (J. V. Remsen, sight records); Parque Nacional Amacayacu (S. L. Hilty, sight record, in litt.). Ecuador?: Napo: "Río Napo" (Hellmayr, 1937: not known whether these were taken within modern boundaries of Ecuador or Peru); Boca Lagarto Cocha (AMNH 3, whether this locality is on the Ecuadorean side of the river or on the opposite bank, now in Peru, is unknown). Pastaza: Río Curaray (Pinto, 1944; it is uncertain whether this locality was on that portion of the Curaray within the modern boundaries of Ecuador). Peru: Dpto. Loreto: Boca Curaray (AMNH 10); Río Papaya, N. bank Río Napo, NW Libertad, ca. 80 km N Iquitos (LSUMZ 2); 1.5 km S Libertad, S. bank Río Napo, 80 km N Iquitos (LSUMZ 1); Puerto Índiana (AMNH 18; Sarayacu, Río Ucayali (AMNH 5); Río Pichana, right bank of Amazon River (FMNH 3); "Santa Rita, Iquitos" (FMNH 3); Pampachica, Iquitos (FMNH 1); 40 mi É Iquitos, near Río Napo (FMNH 1); "Isla Resaco, S. side Río Amazonas, ca. 78 km NE Iquitos" (LSUMZ 5); Río Samiria (BM 2); "Estación Biol. Pithecia, S. bank Río Marañon, along Río Samiria, 150 m'' (ANSP 7, LSUMZ 1); Santa Cruz (BM 1); Lagunas, lower Huallaga (FMNH 1). Dpto. Ucayali: Lagarto, Alto Ucayali (AMNH 7); Pacaya (1, Hellmayr, 1937); "U. Ucayale" (BM 1). Bolivia: Dpto. Beni: El Consuelo (7, Gyldenstolpe, 1945a); "6 km W Casarabe, 230 m" (AMNH 2); "Anita de Costa Márguez, Río Iténez" (AMNH 1); "Boca del Río Baures, Río Iténez" (AMNH 3); "26 km de la boca Río Ibaré" (AMNH 3); Río Mamoré (AMNH 1); "4 km de la boca Río Tijamuchi" (AMNH 3); "Monte Grande, 90 km N Trinidad" (IML 1); "Laguna Bolivia,

Río Ichoa, Prov. Moxos' (LSUMZ 2); "38 km by road W Trinidad, 175 m, Prov. Moxos' (LSUMZ 3); "6 km by road SE Trinidad, 175 m, Prov. Cercado' (LSUMZ 9). *Dpto. Santa Cruz*: Buena Vista (CM 1); Río Surutú (CM 3, IML 2); Palmarito (CM 3) (first records for Santa Cruz). Thus, this species is known from the Orinoco Basin and from numerous localites in western Amazonia but is scarce or absent from most of eastern Amazonia. The high number of specimens from several localties indicates that it is locally common.

Published information on the natural history of this species is scanty. Beebe (1909) wrote that it was "Common in small flocks all along the Río Guarapiche and the Cano Guanoco. Very tanager-like in actions and call-note. They were feeding wholy on small insects." A. M. Ollala (in Gyldenstope, 1945b) noted that it was very common in large flocks in inundated areas, as also noted by Sick (1985). Remsen and Parker (1983) classified this species as one restricted to riverine habitats, mainly "varzea" forest. Hilty and Brown (1986) described its flocking and foraging behavior, habitat preferences, and vocalizations.

We are familiar with this species from fieldwork near Leticia, Colombia, and at several localites in central Bolivia. In our experience, this species is seldom found far from water and is highly gregarious. Tight-knit, noisy flocks (6-12 birds along the Amazon and 20-75 birds in central Bolivia) forage in the canopy and subcanopy of river- and lake-edge trees by probing and gleaning epiphytes, leaf clusters, and bark. Usually, flock members give a variety of calls that result in a nearly continuous outpouring of vocalizations from the flock as a whole; these sounds, mostly melodious short whistles and liquid notes, recall those made by other flocking icterid blackbirds, such as *Gnorimopsar chopi* and *Agelaius phoeniceus*.

The nest of this species has not been described (Orians, 1985). On 13 Feb. 1977, at Laguna Bolivia, Río Ichoa, JVR found a nest of *L.t. bolivianus* under construction about 4 m above ground in a 5 m tall "mutucu" palm in a small opening in the middle of an island of trees surrounded by flooded "pampas" grassland. The habitat in this area was a mixture of seasonally flooded grasslands and patches of mostly low-stature forest on the higher ground. Most trees were under 10 m in height, but a few reached 35 m. Palms were abundant. Two birds, presumably a pair, brought strands of what was apparently grass, usually at least 30 cm in length, to the nest about every 10 minutes. The nest itself, in the early stages of construction, consisted of such strands woven into and perpendicular to the leaves of the supporting palm about half the way out from the branch. It appeared as if the nest might eventually be a hanging basket, but it was too early in nest-building to be certain. It could not be determined whether both birds were participating in its construction. The birds frequently gave a very nasal, three-noted call "chew-chew-chew". A deep "chuck" note was given in situations of mild alarm.

Of the recent LSUMZ specimens of L. t. tanagrinus collected in August, two males and one female were in breeding condition, two females (one a juvenal) were not in breeding condition, one female was intermediate, and one

could not be determined. Mean body weight for the two males was 66.3 g (65-67.5), for adult females 50.1 g (N=4,44-59 g), and for the juvenal female, 43 g. All showed wing or body molt except for one of the breeding condition males. The juvenal plumage is virtually identical to that of the adult. All specimens were noted as having "no fat" or "light fat". All stomach contents examined contained insects. Typical soft part colors were: iris dark brown, bill black, and tarsi and toes lack. Of the recent LSUMZ specimens of the smaller L. t. bolivianus, all collected in February, June and October, the only ones in breeding condition were both specimens from February and two of six males from October. Molt was found in one of two June specimens and 3 of 10 specimens from October. Of the 15 specimens, 14 had "no fat" and 1 "light fat". Mean body weight for adult males was 37.9 g (34.5-44, N=8) and for females, 34.9 g. Thirteen stomach contents contained insects, one contained both insects and seed fragments, and one, seed fragments only. Soft parts were the same as those of the nominate subspecies.

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SUMMARY

Data from specimens, literature, and recent field observations are used to summarize current knowledge concerning the distribution, habitat, behavior, body weight, diet, and soft part colors for nine little-known bird species that occur in Bolivia: Buff-bellied Hermit, Phaethornis subochraceus (Trochilidae), Bolivian Earthcreeper, Upucerthia harterti (Furnariidae), Buff-browed Spinetail, Synallaxis (azarae) superciliosa (Furnariidae), Stripe-backed Antbird, Myrmorchilus strigilatus (Formicariidae), Sulphur-bellied Tyrant-Manakin, Neopelma sulphureiventer (Tyrannoidea), Cochabamba Mountain-Finch, Poospiza (Compsospiza) garleppi (Emberizinae), Fulvous-headed Brush-Finch, Atlapetes fulviceps (Emberizinae), Rufous-bellied Saltator, Saltator rufiventris (Cardinalinae), and Velvet-fronted Grackle, Lampropsar tanagrinus (Icteridae). Data are presented that strongly suggest that Synallaxis superciliosa is best regarded as a subspecies of S. azarae.

LITERATURE CITED

- Beebe, W. 1909. An ornithological reconnaissance of northeastern Venezuela. Zoologica 1: 67-114.
- BERLEPSCH, H. VON. 1893. On a remarkable new finch from the highlands of Bolivia. Ibis 5: 207-210.
- CARRIKER, M.A. 1934. Descriptions of new birds from Peru, with notes on the nomenclature and status of little-known species. Proc. Acad. Natur. Sci. Philadelphia 86: 317-334.
- Chapman, F. M. 1926. The distribution of bird-life in Ecuador. Bull. Amer. Mus. Natur. Hist. 55: 1-784.
- CORY, C. and C.E. HELLMAYR. 1924. Catalogue of birds of the Americas. Field Mus. Natur. Hist., Zool. Ser., 13, pt. 3.
- CORY, C. and C.E. HELLMAYR. 1925. Catalogue of birds of the Americas. Field Mus. Natur. Hist., Zool. Ser., 13, pt. 4.
- DUGAND, A. and J.I. BORRERO H. 1946. Aves de la confluencia del Caquetá y Orteguaza (base aerea de Tres Esquinas) Colombia. Caldasia 5: 15-156.
- FITZPATRICK, J.W. 1982. [Review of:] Taxonomy and geographical distribution of the Furnariidae (Aves, Passeriformes), by Charles Vaurie. Auk 99: 810-813.
- GYLDENSTOLPE, N. 1945a. A contribution to the ornithology of northern Bolivia. Kungl. Svenska Vet.-Akad. Handl., ser. 3., 23.
- GYLDENSTOLPE, N. 1945b. The bird fauna of Rio Juruá in western Brazil. Kungl. Svenska Vet.-Akad. Handl., ser. 3, 22.
- GYLDENSTOLPE, N. 1951. The ornithology of the Rio Purús region of western Brazil. Arkiv Zoologi 2: 1-320.
- HAMEL, P.B. 1986. Bachman's Warbler. A species in peril. Washington, D.C., Smithsonian Inst. HELLMAYR, C.E. 1929. Catalogue of birds of the Americas. Field Mus. Natur. Hist., Zool. Ser., 13, pt. 6.
- HELLMAYR, C.E. 1937. Catalogue of birds of the Americas. Field Mus. Natur. Hist., Zool. Ser., 13, pt. 10.
- HELLMAYR, C.E. 1938. Catalogue of birds of the Americas. Field Mus. Natur. Hist., Zool. Ser., 13, pt. 11.
- KERR, J.G. 1901. On the birds observed during a second zoological expedition to the Gran Chaco. Ibis (1901): 215-236.
- LANYON, S.M. 1985. A molecular perspective on higher-level relationships in the Tyrannoidea (Aves). Syst. Zool. 34: 404-418.
- MEYER DE SCHAUENSEE, R.M. 1966. The species of birds of South America and their distribution.

Narberth, Pa., Livingston Publ. Co. NAROSKY, S. 1984. Registros nuevos y infrecuentes de aves argentinas. Hornero 12: 122-126. NAROSKY, S, R. FRAGA and M. DE LA PENA. 1983. Nidification de las aves argentinas. Buenos Aires, Argentina, Asoc. Ornitología del Plata.

Nores, M. and D. Yzurieta. 1981. Nuevas localidades para aves argentinas. Hist. Natural 2: 33-42.

NORES, M. and D. YZURIETA. 1983a. Nuevas localidades para aves argentinas. Parte IV. Hist. Natural 3: 41-43.

Nores, M. and D. YZURIETA. 1983b. Nuevas localidades para aves argentinas. Parte V. Hist. Natural 3: 159-160.

OLROG, C.C. 1979. Las aves argentinas. Buenos Aires, Argentina, Admin, Parques Nacionales. OLROG, C.C. and F. CONTINO. 1970. Dos especies nuevas para la avifauna argentina. Neotropica 16: 94-95.

ORIANS, G.H. 1985. Blackbirds of the Americas. Seattle, Univ. Washington Press.

PARKER, T.A. III. 1981. Distribution and biology of the White-cheeked Cotinga Zaratornis stresemanni, a high Andean frugivore. Bull. Brit. Ornith. Club 101: 256-265.

PAYNTER, R.A., Jr. 1978. Biology and evolution of the avian genus *Atlapetes* (Emberizinae). Bull. Mus. Comp. Zool. 148: 323-369.

PAYNTER, R.A., Jr. 1982. Ornithological gazetteer of Venezuela. Cambridge, Mass., Museum of Comparative Zoology, Harvard University.

PAYNTER, R.A., Jr. 1985. Ornithological gazetteer of Argentina. Cambridge, Mass., Museum of

Comparative Zoology, Harvard University.

PAYNTER, R.A., Jr. and A.M.G. CAPERTON. 1977. Ornithological gazetteer of Paraguay.

Cambridge, Mass., Museum of Comparative Zoology, Harvard University.

PAYNTER, R.A., Jr. and M.A. TRAYLOR, Jr. 1977. Ornithological gazetteer of Ecuador. Cambridge, Mass., Museum of Comparative Zoology, Harvard University.

PAYNTER, R.A., Jr. and M.A. TRAYLOR, Jr. 1981. Ornithological gazetteer of Colombia.

Cambridge, Mass., Museum of Comparative Zoology, Harvard University.

PAYNTER, R.A., Jr., M.A. TRAYLOR, Jr. and B. WINTER. 1975. Ornithological gazetteer of Bolivia.

Cambridge, Mass., Museum of Comparative Zoology, Harvard University.

PETERS, J. 1951. Check-list of birds of the world. Vol 7. Cambridge, Mass., Museum of

Comparative Zoology, Harvard University.

PINTO, O.M. de O. 1944. Catálogo das Aves do Brasil. Dpt. Zool., Secr. Agric. Indústria, Comércio, Sao Paulo.

PRUM, R.O. and W.E. LANYON. 1989. Monophyly and phylogeny of the Schiffornis group (Tyrannoidea). Condor 91: 444-461.

REMSEN, J.V., Jr. 1984a. Natural history notes on some poorly known Bolivian birds, part 2. Gerfaut 74: 163-179.

REMSEN, J.V., Jr. 1984b. High incidence of "leapfrog" pattern of geographic variation in Andean birds: implications for the speciation process. Science 224: 171-173.

REMSEN, J. V., Jr. and T.A. PARKER, III. 1983. Contribution of river-created habitats to bird species richness in Amazonia. Biotropica 15: 223-231.

REMSEN, J.V., Jr., T.A. PARKER, III, and R.S. RIDGELY. 1982. Natural history notes on some poorly known Bolivian birds. Gerfaut 72: 77-87.
 SICK, H. 1985. Ornitologia brasileira. Vol. 2. Brasilia, Editora Universidade Brasilia.

SMITHE, F. 1975. Naturalist's color guide. New York, Amer. Mus. Natur. Hist

SNow, D.W. 1979. Family Pipridae. Pp 245-280 in Check-list of birds of the world. Vol 8 (M. A. Traylor, Jr. ed.). Cambridge, Mass., Museum of Comparative Zoology, Harvard University. SNYDER, D.E. 1966. The birds of Guyana. Salem, Mass., Peabody Museum.

STEPHENS, L. and M.A. TRAYLOR, Jr. 1983. Ornithological gazetteer of Peru. Cambridge, Mass., Museum of Comparative Zoology, Harvard University.

STEPHENS, L. and M.A. TRAYLOR, J. 1985. Ornithological gazetteer of the Guianas. Cambridge,

Mass., Museum of Comparative Zoology, Harvard University.

VAURIE, C. 1980. Taxonomy and geographical distribution of the Furnariidae. Bull. Amer. Mus. Natur. Hist. 166: 1-357.

VUILLEUMIER, F. 1969. Field notes on some birds from the Bolivian Andes. Ibis 111: 559-608. ZIMMER, J.T. 1936. Studies of Peruvian birds, XX. Notes on the genus Synallaxis. Amer. Mus. Novitates N° 861.

RESUME

Les données provenant de l'étude de spécimens, de la littérature et des observations de terrain récentes ont été utilisées pour résumer les connaissances relatives à la distribution, l'habitat, le comportement, le poids, le régime alimentaire et les couleurs des parties dénudées de neuf espèces d'oiseaux peu connues de Bolivie. Les espèces traitées sont les suivantes: Phaethornis subochraceus (Trochilidae), Upucerthia harterti (Furnariidae), Synallaxis (azarae) superciliosa (Furnariidae), Myrmorchilus strigilatus (Formicariidae), Neopebna sulphureiventer (Tyrannoidea), Poospiza (Compsospiza) garleppi (Emberizinae), Atlapetes fulviceps (Emberizinae), Saltator rufiventris(Cardinalinae) et Lampropsar tanagrinus (Icteridae). Les données récoltées suggèrent que Synallaxis superciliosa devrait être regardée comme sous-espèce de S. azarae.

SAMENVATTING

Gegevens verzameld bij museumspecimens en in de literatuur worden hier samengebracht met veldwaarnemingen om de huidige kennis inzake verspreiding, habitat, gedrag, lichaamsgewicht, voedsel en kleur van de weke delen van negen weinig bekende vogelsoorten van Bolivië weer te geven. De besproken soorten zijn Phaethornis subochraceus (Trochilidae), Upucerthia harterti (Furnariidae), Synallaxis (azarae) superciliosa (Furnariidae), Myrmorchilus strigilatus (Formicariidae), Neopelma sulphureiventer (Tyrannoidea), Poospiza (Compsospiza) garleppi (Emberizinae), Atlapetes fulviceps (Emberizinae), Saltator rufiventris (Cardinalinae) en Lampropsar tanagrinus (Icteridae). De naar voor gebrachte gegevens tonen aan dat Synallaxis superciliosa best beschouwd wordt als ondersoort van S. azarae.

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