

## First observations and new distributional data for birds in Paraguay

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The Paraguayan bird fauna has long been one of the least studied in South America. Beginning in the late 1970s, this situation has gradually changed, and rather rapidly so during the last ten years. With the publication by Hayes (1995), the status, distribution and biogeography of the Paraguayan avifauna has been evaluated and summarised in the light of available published and unpublished sources, and of extensive field work. Hayes' book constitutes a welcome and solid foundation for further ornithological studies in Paraguay. The processes that determine the geographical and temporal distributions are still poorly understood, however, and additional important information is collected during almost every major field trip in the country.

In this paper, new distributional data on several bird species are presented. The data derive from two different sources. The first is a large, unpublished collection of Paraguayan birds stored at the Swedish Museum of Natural History. During an 18-month collecting trip to Paraguay in 1946–47, Claës-Christian Olrog collected 1048 birds, and many other vertebrates, for the Swedish Museum of Natural History, mainly from the Chaco.

The second is data collected during recent collaborative field work in Paraguay by the Museo Nacional de Historia Natural del Paraguay and the Swedish Museum of Natural History. Since 1993, the two museums have been collaborating in the project PROVEPA (Proyecto Vertebrados del Paraguay). The project contains a biodiversity training programme focusing on various aspects of vertebrate systematics and taxonomy, biological diversity estimation, and natural history museum practices. Within this framework, ornithological field work has been conducted in various areas of Paraguay. Information on the avifauna is regularly obtained in the process of training students in censusing methods, sound-recording and specimen collecting. Needless to say, all regular sight observations are also recorded.

The biogeographical regions referred to below are those defined from vegetational and topographical features by Hayes (1995) (Fig. 1).

### Specimen data standards

*Measurements.* Wing length—maximum length method, i.e. with wing flattened against the ruler and the primaries straightened (*cf.* Svensson 1993); tail length—from the root of the central pair of rectrices; culmen—distance from tip to the base of the foremost feathers of the forehead; bill depth—measured where the calipers rest comfortably or, on wedge-shaped bills, at the feathering with the calipers oriented at 90 degrees against the cutting edge of the bill; tarsus length—from



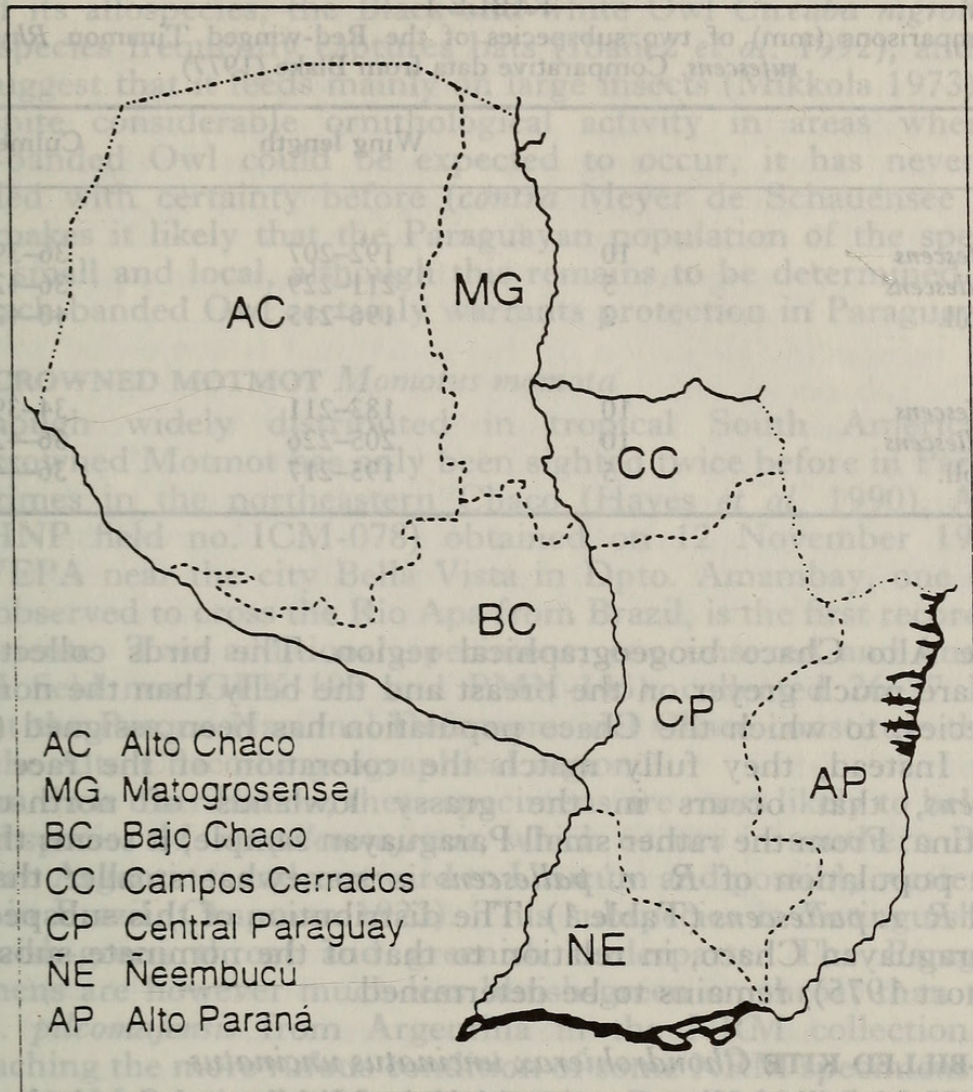


Figure 1. Biogeographical divisions of Paraguay based on vegetation and geographical features; from Hayes (1995). Alto Chaco, Matogrosense and Bajo Chaco constitute the Paraguayan Chaco. The region east of Río Paraguay is called the Oriente.

intertarsal joint to last complete leg scale before the toes diverge. All measurements are given in millimetres.

*Museum acronyms.* NRM stands for the Swedish Museum of Natural History and MNHNP for the Museo Nacional de Historia Natural del Paraguay.

**Annotated list of species**

**RED-WINGED TINAMOU** *Rhynchotus rufescens pallescens*

The Red-winged Tinamou is widely distributed in Bolivia, Brazil, Paraguay, Uruguay and Argentina (Blake 1977). In Paraguay it is common only in the Oriente, and is regarded as not occurring in the Alto Chaco and Matogrosense biogeographical regions.

Three males and five females (NRM 500061–500068), collected by Olrog in western Dpto. Presidente Hayes in the austral winter of 1947, constitute the first documented records of the Red-winged Tinamou



TABLE 1

Size comparisons (mm) of two subspecies of the Red-winged Tinamou *Rhynchotus rufescens*. Comparative data from Blake (1977)

		Wing length	Culmen
Males			
<i>R. r. rufescens</i>	10	192–207	36–39
<i>R. r. pallescens</i>	5	211–229	36–42
Olrog coll.	3	196–215	40–42
Females			
<i>R. r. rufescens</i>	10	183–211	34–39
<i>R. r. pallescens</i>	10	205–226	36–42
Olrog coll.	5	195–217	36–44

for the Alto Chaco biogeographical region. The birds collected by Olrog are much greyer on the breast and the belly than the nominate subspecies, to which the Chaco population has been assigned (Short 1975). Instead, they fully match the coloration of the race *R. r. pallescens*, that occurs in the grassy lowlands of north-central Argentina. From the rather small Paraguayan sample, it seems that the Chaco population of *R. r. pallescens* is somewhat smaller than are typical *R. r. pallescens* (Table 1). The distribution of this subspecies in the Paraguayan Chaco, in relation to that of the nominate subspecies (cf. Short 1975), remains to be determined.

#### HOOK-BILLED KITE *Chondrohierax uncinatus uncinatus*

The Hook-billed Kite occurs widely in Middle and South America. In Paraguay it is a rare resident in several biogeographical regions in both the Chaco and Oriente. A female (NRM 500111) collected 23 November 1946 c. 40 km east of Pozo Colorado in Dpto. Presidente Hayes is, however, the first record of the species from the Bajo Chaco region. The active egg follicles show that the bird was breeding at the time.

#### BLACK-BANDED OWL *Ciccaba huhula*

The Black-banded Owl has a wide distribution in forests of northern and eastern South America and occurs nearest to Paraguay in eastern Brazil (Meyer de Schauensee 1966). The only previous report of the Black-banded Owl from Paraguay is based on calls attributed to this species at the Estancia Itabó, Dpto. Canindeyú, by Brooks *et al.* (1992).

On 30 September 1993 a female Black-banded Owl (NRM field no. ICM-006; gonads active) was collected in Parque Nacional Caaguazú, Dpto. Caazapá, by a PROVEPA team. The owl was breeding, as shown by an almost fully developed egg present in the ovary with additional eggs under development. Two bats of different species were found in the stomach. Nothing is known of the food preferences of the Black-banded Owl, but information does exist on the



diet of its allospecies, the Black-and-white Owl *Ciccaba nigrolineata*. That species frequently captures bats (Ibañez *et al.* 1992), and other data suggest that it feeds mainly on large insects (Mikkola 1973).

Despite considerable ornithological activity in areas where the Black-banded Owl could be expected to occur, it has never been recorded with certainty before (*contra* Meyer de Schauensee 1966). This makes it likely that the Paraguayan population of the species is rather small and local, although this remains to be determined. If so, the Black-banded Owl certainly warrants protection in Paraguay.

#### **BLUE-CROWNED MOTMOT *Momotus momota***

Although widely distributed in tropical South America, the Blue-crowned Motmot has only been sighted twice before in Paraguay, both times in the northeastern Chaco (Hayes *et al.* 1990). A male (MNHNP field no. ICM-078) obtained on 12 November 1994 by PROVEPA near the city Bella Vista in Dpto. Amambay, one of two birds observed to cross the Río Apa from Brazil, is the first record from the Oriente. Two additional specimens, one unsexed and one male (NRM field nos. GFK-193 and PMN-145), collected 26–27 March 1995 at the Parque Nacional Defensores del Chaco constitute the first from the Alto Chaco biogeographical region.

From their distribution, these specimens are most likely to belong to the subspecies *M. m. pilcomajensis*, which occurs in southern Bolivia, northern Argentina, and eastward to Urucúm and possibly western São Paulo in Brazil (Chapman 1923). This subspecies is distinguished by its bluish-green throat and greenish underparts. The Paraguayan specimens are however much less bluish-green on throat than typical *M. m. pilcomajensis* from Argentina in the NRM collection, thus approaching the more rufous condition of some NRM specimens of the subspecies *M. m. simplex* from Amazonian Brazil. Also the breast and underparts are more cinnamon than typical *M. m. pilcomajensis*. It thus seems probable that these specimens are intergrades between *M. m. pilcomajensis* and *simplex*.

#### **RUSTY-BACKED ANTWREN *Formicivora rufa rufa***

The Rusty-backed Antwren has a wide distribution in central South America (Ridgely & Tudor 1994). In Paraguay, it is a rare and local breeder in northern and central Oriente (Hayes 1995). Only one record exists from the Chaco: Villa Hayes in Dpto. Presidente Hayes (Bertoni 1930, Hayes 1995). Its closest breeding areas outside Paraguay are in northeastern Bolivia and southern central Brazil (Meyer de Schauensee 1966).

On 16 September 1994, an adult male (NRM field no. GFK-111; tail moulting, gonads inactive) was obtained by a PROVEPA team 5 km north of Bahia Negra, Dpto. Alto Paraguay. This specimen is the first documented occurrence of the Rusty-backed Antwren in the Matogrosense biogeographical region. It was mist-netted in open forest with high scrub vegetation, only a couple of metres from the Río Paraguay, indicating that it might have been a stray individual from the Mato Grosso do Sul of Brazil, where it is known to breed.



**BRAN-COLOURED FLYCATCHER** *Myiophobus fasciatus*

The Bran-coloured Flycatcher has a wide, almost circum-Amazonian distribution in South America. Contrary to the map in Ridgely & Tudor (1994), this species has previously not been thoroughly documented from the Paraguayan Chaco (Hayes 1995). A juvenile (NRM field no. GFK-184; fresh plumage) obtained on 25 March 1995 by a PROVEPA team in Parque Nacional Defensores del Chaco, Dpto. Alto Chaco, thus constitutes the first Paraguayan record of the Bran-coloured Flycatcher west of the Río Paraguay.

The subspecific allocation of this individual is somewhat problematic. The subspecies mainly differ in size and in the amount of rufous in the dorsal coloration. In the collections of NRM we compared the PROVEPA bird with samples of *M. f. auriceps* and *M. f. flammiceps* taken in Bolivia, Argentina and Brazil. Although a considerable variation in dorsal coloration and size can be observed between the samples, this does not co-vary geographically. Instead, much of this variation seems to be due to differences in the age composition of the samples, the juveniles being considerably more reddish on the dorsal parts than the adults. It is suggested from the NRM collection that the southern populations of the Bran-coloured Flycatcher are in need of a taxonomic revision.

**RUSSET-WINGED SPADEBILL** *Platyrinchus leucoryphus*

The Russet-winged Spadebill is endemic to the Mata Atlántica with a very restricted distribution in southeastern Brazil, eastern Paraguay and northeastern Argentina. It is rare and regarded as Vulnerable by Collar *et al.* (1992), who stressed the need for further field studies of its population dynamics and habitat requirements, which are largely unknown.

On 6 October 1993 an adult male (NRM field no. ICM-020) Russet-winged Spadebill was mist-netted by a PROVEPA team in primary forest at Parque Nacional Caaguazú in Dpto. Caazapá, Paraguay. Its testes were enlarged, indicating breeding condition. The stomach contained invertebrates in the following proportions by weight: 15% Hymenoptera, 5% Araneae, 5% Coleoptera, 4% Diptera? (eggs), 1% Arthropoda (eggs), and 70% undetermined. At the same site several individuals of the smaller, congeneric White-throated Spadebill *P. mystaceus* were obtained. Comparisons of the stomach contents of these few individuals could reveal no significant differences in food choice between the species.

The Russet-winged Spadebill is a rather inconspicuous bird occurring in the understory of subtropical forests. Albeit never in large numbers, the species has been collected and sighted at several localities in the Oriente where it may be more common than previously thought.

**STRANGE-TAILED TYRANT** *Alectrurus risora*

The Strange-tailed Tyrant is declining or has become extinct in large areas of its former distribution in southern Brazil, Paraguay, Uruguay and northern Argentina, mainly due to changes in land management (Collar *et al.* 1992). The present Paraguayan distribution is mainly in



the southernmost part of the Oriente and the humid Chaco where it is local and uncommon (Collar *et al.* 1992, Hayes 1995). Two males and one female (MNHNP field no. AHN-203, and NRM field nos. AHN-206 and AHN-201; no moult recorded and gonads inactive) were obtained on 28 September 1994 at Estancia San José, Dpto. Presidente Hayes, where it is a not uncommon breeder (pers. obs.).

**WHITE-NAPED XENOPSARIS** *Xenopsaris albinucha albinucha*

In areas bordering Paraguay, the White-naped Xenopsaris occurs in northern Argentina, eastern Bolivia and southwestern Brazil, where it seems to be mostly a rare and local species (Ridgely & Tudor 1994). On 22 November 1946, Olrog collected a male (NRM 500445) White-naped Xenopsaris at Estancia Hermosa, c. 40 km east of Pozo Colorado, Dpto. Presidente Hayes. This is the first record of the species from the Bajo Chaco, despite a good number of records from the Alto Chaco biogeographical region of Paraguay (Hayes 1995).

**GOLDEN-BILLED SALTATOR** *Saltator aurantiirostris aurantiirostris*

Although the Golden-billed Saltator is generally distributed in western Paraguay (Ridgely & Tudor 1989) and is even abundant in the Alto Chaco biogeographical region, it has never been reported from the Matogrosense (Hayes 1995). On 13 September 1994, a PROVEPA team obtained a female (NRM field no. NEY-038; not moulting) at Estancia Dona Julia, 5 km north of Bahia Negra, Dpto. Alto Paraguay.

**ULTRAMARINE GROSBEAK** *Cyanocompsa brissonii sterea*

The Ultramarine Grosbeak is a rare to uncommon breeder in most areas of Paraguay (Hayes 1995). A specimen (NRM field no. LIY-019) obtained 13 October 1994 by a PROVEPA team near the city of Bella Vista, Dpto. Amambay, is the first record from the Campos Cerrados biogeographical region. Its small size (wing 80, tail 75, culmen 14.5, bill depth 13, tarsus 19) shows that it should be referred to the subspecies *C. b. sterea*, of eastern and southern Brazil, northeastern Argentina, and western Paraguay (Oberholser 1901, Paynter 1970).

**SAFFRON-COWLED BLACKBIRD** *Agelaius flavus*

The Saffron-cowled Blackbird is a rare breeder in the Oriente region of Paraguay, from which only a handful of reported sightings exist (Hayes 1995). On 3 March 1995, Per Ericson and Ingrid Cederholm observed four male Saffron-cowled Blackbirds perched for 2 minutes in a tree along Ruta General Bruguez, Dpto. Presidente Hayes (c. 24°45'S, 58°30'W). The typical icterid appearance of these birds, in combination with a yellow head, leaves no doubt about the species identification. This observation, made in open, wet grassland, is the first documented sighting in the Chaco of Paraguay. The species may, however, have been observed at least once before in the southern Bajo Chaco (Collar *et al.* 1992, Jorge Escobar pers. comm.). Because of its declining populations in all parts of its range, the Saffron-cowled Blackbird is regarded as Vulnerable (Collar *et al.* 1992).



**TROUPIAL *Icterus icterus strictifrons***

In Paraguay, the Troupial occurs in the Alto Chaco and Bajo Chaco biogeographical regions. On 17 September 1994 an adult male (NRM field no. GFK-130; gonads active) was collected in the Matogrosense region by a PROVEPA team 5 km north of Bahía Negra, Dpto. Alto Paraguay. The bird appeared to be paired with another individual, but apart from its active gonads there was no further sign of breeding activity.

The two Troupials were the only individuals of the species observed during the 12 days of field work in the area. Since the collecting site is only 20 m from the Río Paraguay, the birds may have belonged to the population that inhabits the Río Paraguay drainage of the Brazilian Mato Grosso (Ridgely & Tudor 1989).

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## On the identity of *Heterornis senex* Bonaparte

by G. F. Mees

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The name *Heterornis senex* was introduced in the ornithological literature by Bonaparte (1850: 419) with the following words: "Pastor senex, Temm. Mus. Lugd. ex Beng. Dorso brunnescente, alis caudaque chalybaeo-nigris, pileo griseo; subtus sordide albo-cinereus". The citation shows that, in Leiden, the mounted bird was labelled with the unpublished name *Pastor senex* Temminck. The binomen under which Bonaparte published the name was *Heterornis senex*.

Only a few years later, Layard (1854: 217) described a mountain-starling from Ceylon, which he named *Heterornis albofrontata*. In the discussion, he noted: "It may be *Pastor Senex*, Temm., as it agrees tolerably well with the short description given in Prince Bonaparte's Consp. Avium, p. 419, but that description is so concise that I cannot be sure of it; I therefore name it provisionally *H. albofrontata*".

Layard's suggestion that *H. senex* and *H. albofrontata* could be identical was soon transformed into certainty by Holdsworth (1872; 462): "*Temenuchus senex*, Temm. Peculiar to Ceylon; described by Layard as *T. albofrontatus*, as it was believed to be new; it has since been recognized as *T. senex*, Temm., erroneously described by Bonaparte from Bengal".

Since that time, the Ceylonese mountain-starling has been universally known by the specific epithet *senex* (its generic name has been less stable, the current one is *Sturnus*).

In spite of Holdsworth's definite statement, I have been unable to find published evidence that, since Bonaparte, anybody has ever actually examined the type material of *H. senex*.

In the old collection of mounted birds in Leiden, there are two specimens labelled *Pastor senex*. Both have a red-margined label for display, of a type used in Temminck's day (i.e. before 1858). The first





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