

NEW INFORMATION ON NINE BIRDS FROM PARAGUAY

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Eastern Paraguay combines several distinct ecosystems, and hence its avifauna is highly diverse. To the east are the humid Atlantic forests, one of the most unique centres of endemism in South America, holding eight "Endemic Bird Areas" (International Council for Bird Preservation 1992). Three of these "Endemic Bird Areas" extend into eastern Paraguay (B52 South-east Brazilian lowland to foothills, B53 South-east Brazilian mountains, and B54 South-east Brazilian araucaria forest), with c. 72 of the 214 Atlantic Forest endemic bird species occurring in the country (Scott & Brooke 1985, Hayes 1995). To the south lie the Argentinian pampas grasslands, to the north the cerrado savannas of Mato Grosso, Brazil, and to the west, on the far bank of the Río Paraguay, the vast Chaco scrubland. However, habitat destruction, both of the humid subtropical forest and of the virgin grasslands, along with disturbance through hunting, trapping, pollution and infrastructural development, is threatening to destroy this special avifauna in the near future. No less than 23 of the bird species recorded in Paraguay are listed as "threatened" with global extinction by Collar *et al.* (1992).

Project CANOPY '92, an undergraduate expedition from the University of Cambridge, spent 11 weeks in the austral winter of 1992 carrying out ornithological and mammalogical fieldwork at five sites (Fig. 1) in remnant humid forest blocks in the Oriental region of Paraguay. The results of this fieldwork in relation to con-

servation have been published elsewhere (Brooks *et al.* 1993). During the course of the project, we recorded nine species of birds which have not been previously confirmed to occur in the country (Hayes 1995). Here we report our observations of these species.

Our first four fieldwork sites were ranches on which blocks of forest remain. They were: 1) Estancia La Golondrina, Dpto. Caazapá (25°33'S, 55°30'W, 5–21 July, 270 field-hours); 2) Estancia San Antonio, Dpto. Alto Paraná (25°18'S, 55°20'W, 22 July–3 Aug., 379 field-hours); 3) Estancia Itabó, Dpto. Canindeyú (24°27'S, 54°38'W, 4–19 Aug., 367 field-hours); and 4) Estancia La Golondrina, Dptos. Caaguazú and Canindeyú (24°43'S, 55°22'W, 21–30 Aug., 284 field-hours). These forests have been designated as "Private Nature Reserves" in an innovative joint agreement between the Fundación Moisés Bertoni and the land-owners. Our final site, 5) the Reserva Natural del Bosque Mbaracayú, Dpto. Canindeyú (24°07'S, 55°26'W, 2–19 Sep., 416 field-hours), is the largest block of humid forest remaining in eastern Paraguay. The reserve is managed by the Fundación Mbaracayú, a body comprised of representatives from the Fundación Moisés Bertoni, the local Aché Indians, The Nature Conservancy, the Paraguayan Government and the United Nations (Fundación Moisés Bertoni 1991). All sites are lowland, 100–350 m altitude.

Project CANOPY '92 recorded nine species that have not previously been confirmed to occur in Paraguay (Hayes 1995). For six of these, Red-spectacled Parrot *Amazona pretrei*, Black-banded Owl *Strix huhula*, Sooty Swift *Cypseloides fumigatus*, Grey-rumped Swift *Chaetura cinereiventris*, Rufous-throated Sapphire *Hylocharis sapphirina* and Canebrake Groundcreeper *Clibanornis dendrocolaptoides*, "hypothetical" records exist from Paraguay, mainly as historical reports without supporting details or evidence (Hayes 1995). The other three species have not even

been reported in Paraguay before: these are White-browed Foliage-gleaner *Philydor amaurotis*, Mouse-colored Tapaculo *Scytalopus speluncae* and Sooty Grassquit *Tiaris fuliginosa*. Note that, following considerable research, we now consider the records of Plumbeous Pigeon *Columba plumbea* mentioned in Brooks *et al.* (1993) to be inconclusive.

Detailed fieldnotes were taken in all cases, and for species marked with "*" full field or in-hand descriptions were published in Brooks *et al.* (1993). We state in the text cases where photo-

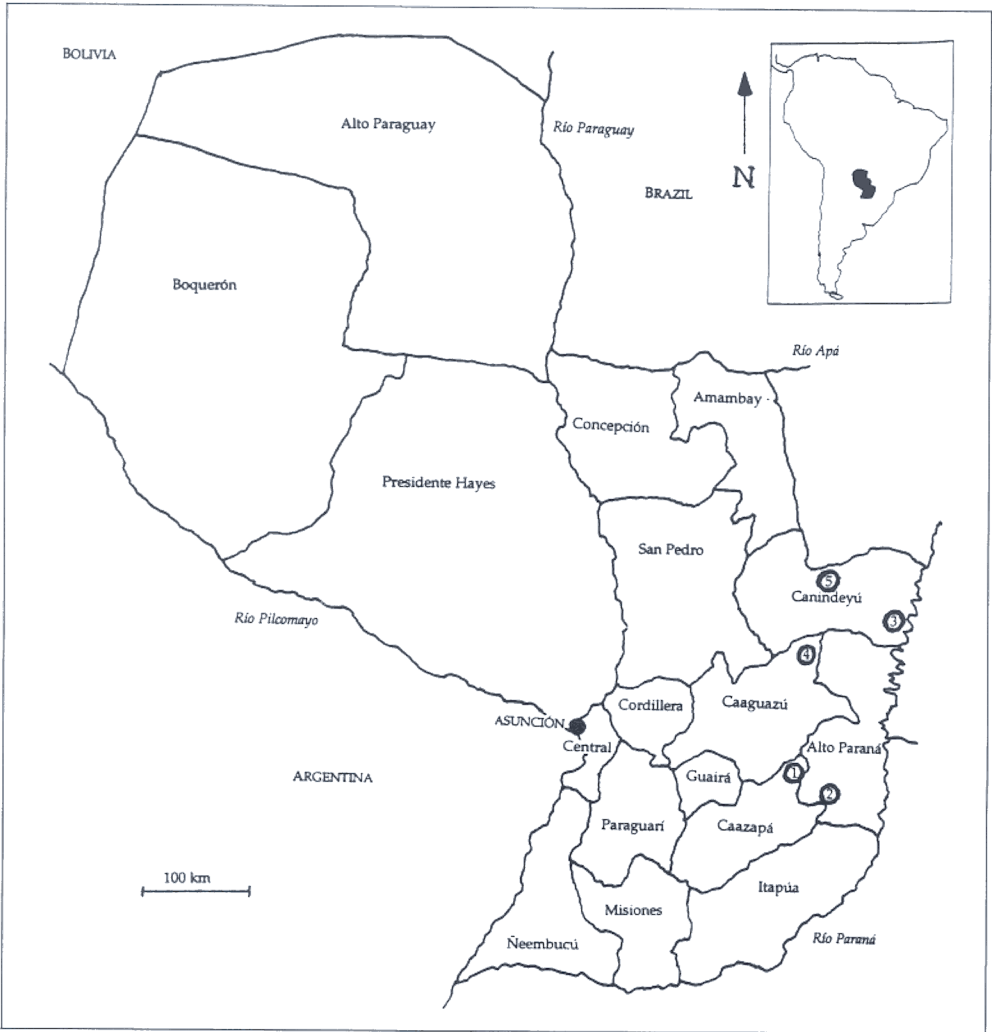


FIG. 1. Paraguay, showing departments and fieldwork site numbers.

graphs have been deposited at VIREO. Biometrics for mist-netted birds were published in Brooks *et al.* (1993). Taxonomy and nomenclature follow Sibley & Monroe (1990), but systematic order follows Hayes (1995) for ease of reference.

Amazona pretrei *. R.B. observed a single individual at Estancia Itabó, Dpto. Canindeyú, on 15 Aug., perched c. 10 m above the ground in a tall, bare emergent. The bird was first sighted at 10:00 and did not move from its perch during 30 min. of observation, but could not subsequently be relocated. It did not associate with the many Vinaceous Parrots *A. vinacea* in the immediate vicinity, and did not call. The description obtained (see Brooks *et al.* 1993) precludes the possibility that the bird was either an Alder Parrot *A. tucumana* (not known from Paraguay) or an immature *A. vinacea*, lacking pink on the breast. A previous report of the species in Paraguay concerns three individuals reportedly collected on the "Río Piraty-y (Alto Paraná)", in June 1928 (Podtiaguín 1944), but no further details of these specimens have ever been available and Hayes (1995) considers them to be "hypothetical". Collar *et al.* (1992) and Hayes (1995) also note another "hypothetical" sight record, of several birds seen flying across the Río Paraná from Misiones, Argentina towards Paraguay in July 1987.

The species has declined seriously in recent years, and Collar *et al.* (1992) consider it to be globally "threatened". It is now apparently extinct in Misiones, Argentina, and confined to araucaria and gallery forest in Rio Grande do Sul, Brazil (Forshaw 1989, Collar *et al.* 1992). However, flocks of *A. pretrei* are highly mobile with some populations of the species undertaking considerable seasonal migrations (Varty *et al.* 1994), indicating that our record is most probably an overshooting migrant from Rio Grande do Sul rather than a member of a remnant population in eastern Paraguay. Alternatively, our record could suggest the possibility that an undiscovered population of the species survives nearby in north-western Santa Catarina, Brazil. Finally, it is not impossible that the bird in question originated from a captive source, as the clandestine trade in this species is apparently not insignificant (Varty *et al.* 1994).

Strix hubula. We heard a single bird calling between 22:00 and 23:00 on 9 Aug. and 14 Aug. at Estancia Itabó, Dpto. Canindeyú. It was identified by reference to Hardy *et al.* (1990). The species has been reported to occur in Paraguay before (Short 1975, Remsen & Ridgely 1980), but Hayes (1995) could trace no previous confirmed records. A specimen was also collected in the Parque Nacional Caaguazú, Dpto. Caazapá, on 30 Sept. 1993, and has been deposited in the Swedish Museum of Natural History (N.I.E.). The species is known to be an uncommon resident of humid forests in Misiones, Argentina (Olrog 1979, Narosky & Yzurieta 1987, Canevari *et al.* 1991) and Brazil (Sick 1993), and its status is presumably similar in eastern Paraguay.

Cypseloides fumigatus *. We recorded this species at Estancia San Antonio, Dpto. Alto Paraná (two on 29 July), Estancia Itabó, Dpto. Canindeyú (one on 6 Aug., four on 10 Aug., two on 13 Aug.), Estancia La Golondrina, northern Dpto. Caaguazú (three on 25 Aug.), and the Reserva Natural del Bosque Mbaracayú, Dpto. Canindeyú (commonly). Our field descriptions of these birds (see Brooks *et al.* 1993), easily distinguish them from Great Dusky Swift *Aerornis senex* (which is a scarce resident in the region) and from the *Chaetura* swifts. Bertoni (1939) reported the species for "Paraná", but without evidence, and Hayes (1995) considered this report to be "hypothetical". There is a recent specimen in the Museo de Historia Natural de Itaipú Binacional (Anonymous 1993). The species is not uncommon in adjacent Brazil (Sick 1993, Tobias *et al.* 1993) and Argentina (Olrog 1979, Narosky & Yzurieta 1987, Canevari *et al.* 1991). The pattern of our records may indicate that the species is a scarce resident in eastern Paraguay, with numbers increased by migrants arriving in the austral spring having wintered further north.

Chaetura cinereiventris *. The status of *Chaetura* swifts in Paraguay is not at all well known. Ashy-tailed Swift *C. andrei* is apparently a fairly common breeder in the country, but seems to be largely absent in the austral winter (Hayes *et al.* 1994). *C. cinereiventris* has not previously been confirmed to occur in Paraguay and Hayes (1995) considers old reports of the species to be "hypothetical". The species has recently been recorded

in the country by R. S. Ridgely (*in litt.*), by Anongmous (1993) and by N. Pérez, who photographed an individual on its nest (F. E. Hayes, *in litt.*). The photograph is apparently deposited at VIREO (Hayes 1995). Also, specimens from Paraguay are apparently in the Muséum de Genève, Switzerland, from 1988 (R.P.C.), and in the Museo de Historia Natural de Itaipú Binacional (Hayes 1995). The species is fairly common in adjacent Argentina (Olrog 1979, Canevari *et al.* 1991, Giraud *et al.* 1993) and Brazil (Scott & Brooke 1985, Sick 1993).

We recorded *C. cinereiventris* commonly at all fieldwork sites except Estancia San Antonio, Dpto. Alto Paraná, but *C. andrei* only at the Reserva Natural del Bosque Mbaracayú, Dpto. Canindeyú (two on 7 Sep, one on 16 Sep), which seems to indicate that *C. cinereiventris* is resident in the country while *C. andrei* is indeed an austral migrant from further north. Although Narosky & Yzurieta (1987) state that both species generally spend the winter to the north of Argentina, Benstead *et al.* (1993) recorded *C. cinereiventris* in Misiones throughout the austral winter but *C. andrei* only after 30 Aug. Sick (1993) also notes that *C. cinereiventris* is present but *C. andrei* absent in the austral winter in southern Brazil.

*Hylocharis saphirina**. J.C.L. recorded the species in humid forest on three occasions, with one bird on 26 July at Estancia San Antonio, Dpto. Alto Paraná, and two individuals on 7 Aug. at Estancia Itabó, Dpto. Canindeyú. It is known from northeastern Argentina (Olrog 1979, Nores *et al.* 1983, Narosky & Yzurieta 1987, Canevari *et al.* 1991) and south-eastern Brazil (Scott & Brooke 1985, Sick 1993), but in Paraguay it is known only from two unsubstantiated reports (Kerr 1892, Bertoni 1939) which Hayes (1995) considers to be "hypothetical". There is apparently a recent skin from the Río Pozuelo, Dpto. Canindeyú, in the Museo de Historia Natural de Itaipú Binacional (Anonymous 1993).

Clibanornis dendrocolaptoides. We mist-netted a single bird in moist primary forest adjacent to a bamboo thicket on 11 July at Estancia La Golondrina, Dpto. Caazapá. A photograph is deposited at VIREO (b36/1/005). The species was reported without further details for "Alto Paraná" (Bertoni 1907) and later from the "Río Yguazú",

Dpto. Caazapá or Dpto. Alto Paraná, and from Puerto Bertoni, Dpto. Alto Paraná (Bertoni 1914), but Hayes (1995) considers these reports to be "hypothetical". The species also occurs at low densities across its small range in Misiones, Argentina (Olrog 1979, Narosky *et al.* 1983, Narosky & Yzurieta 1987, Canevari *et al.* 1991) and southern Brazil (Sick 1993), and is likely to be under threat from the clearance and fragmentation of its preferred damp bamboo habitat (Collar & Andrew 1988). It is considered globally "near-threatened" by Collar *et al.* (1992).

*Philydor amaurotis**. We recorded *P. amaurotis* at two sites with one record of a single bird at Estancia La Golondrina, Dpto. Caazapá on 8 July, and, at Estancia San Antonio, Dpto. Alto Paraná, one on 23rd, three singles on 24th, one on 26th and one on 27 July. A recent sight record of a bird in the Reserva Biológica Itabó, Dpto. Canindeyú and a specimen in the Museo de Historia Natural de Itaipú Binacional are also believed to be this species (F.E. Hayes, *in litt.*). *P. amaurotis* has a very small range within the Atlantic Forests (Stattersfield *et al.*, *in press*), and is considered globally 'near-threatened' by Collar *et al.* (1992). In southeastern Brazil it appears to be a largely montane species (Tobias *et al.* 1993), although it is occasionally recorded in Misiones, Argentina (Olrog 1979, Narosky *et al.* 1983, Narosky & Yzurieta 1987, Canevari *et al.* 1991, Benstead *et al.* 1993). Our description of this species (see Brooks *et al.* 1993) highlight its differences from the similar Buff-browed Foliage-gleaner *Philydor rufosuperciliata*.

Scytalopus spelunca. We recorded this species at Estancia La Golondrina, Dpto. Caazapá only, with four records of single birds foraging in low vegetation with mixed-species flocks on 12 July, 13 July, 14 July and 19 July. Bertoni (1919) specifically noted that the species had not been recorded in Paraguay, but it is a scarce resident in adjacent Argentina (Narosky & Yzurieta 1987, Benstead *et al.* 1993) and Brazil (Scott & Brooke 1985, Sick 1993). There is apparently a specimen in the Museo Argentino de Ciencias Naturales, from the Arroyo Uruguayi, Misiones, Argentina (Fraga & Narosky 1985).

*Tiaris fuliginosa**. We mist-netted a male in low forest near the Arroyo Moroti at Lagunita, in the Reserva Natural del Bosque Mbaracayú, Dpto.

Canindeyú, on 12 Sept. This record represents a major range extension for the species, the nearest known populations of which are in Brazil, in central Mato Grosso and in eastern São Paulo (Ridgely & Tudor 1989, Sibley & Monroe 1990). Photographs of the bird are deposited at VIREO (b36/1/003 and b36/1/004). We also saw small seedeaters apparently of this species in the field on several occasions: a male in a mixed-species flock in transitional forest on 10 Sept., a pair in tall forest on 11 Sept., and a singing male on 13 Sept.

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REFERENCES

Anonymous 1993. Ornithofauna del Area de Itaipú. Lista Aves. Ciudad del Este.
 Benstead, P. J., Hearn, R. D., Jeffs, C. J. S., Callaghan, D. A., Calo, J., Gil, G., Johnson, A. E., & A. R. Stagi Nedelcoff. 1993. Pato Serrucho 93. Final Report. Norwich.
 Bertoni, A. de W. 1907. Segunda contribución a la ornitología paraguaya. Nuevas especies paraguayas. Rev. Inst. Parag. 1906: 298–309.
 Bertoni, A. de W. 1914. Fauna Paraguaya. Catálogos sistemáticos de los vertebrados del Paraguay. Asunción.
 Bertoni, A. de W. 1919. Especies de aves nuevas para el Paraguay. Hornero 1: 255–258.

Bertoni, A. de W. 1939. Catálogos sistemáticos de los vertebrados del Paraguay. Rev. Soc. Cient. Parag. 4: 1–61.
 Brooks, T. M., Barnes, R., Bartrina, L., Butchart, S. H. M., Clay, R. P., Esquivel, E. Z., Etcheverry, N. I., Lowen, J. C., & J. Vincent. 1993. Bird surveys and conservation in the Paraguayan Atlantic Forest. Project CANOPY '92: Final Report. Bird-Life International Study Report No. 57. Cambridge, U.K.
 Canevari, M., Canevari, P., Carrizo, G. R., Harris, G., Mata, J. R., & R. J. Straneck. 1991. Nueva guía de las aves Argentinas. Buenos Aires.
 Chebez, J. C. 1992. Notas sobre algunas aves poco conocidas o amenazadas de Misiones (Argentina). Aprona: Bol. Cient. 21: 12–29.
 Collar, N. J., & P. Andrew. 1988. Birds to watch: The ICBP World check-list of threatened birds. ICBP Technical Publication No. 8. Cambridge, U.K.
 Collar, N. J., Gonzaga, L. P., Krabbe, N., Madroño-Nieto, A., Narango, L. G., Parker III, T. A., & D. C. Wege. 1992. Threatened birds of the Americas: the ICBP/IUCN Red Data Book. Cambridge, U.K.
 Forshaw, J. M. 1989. Parrots of the world. Third edition. London.
 Fraga, R., & S. Narosky. 1985. Nidificación de las Aves Argentinas: Formicariidae a Cinclidae. Buenos Aires.
 Fundación Moisés Bertoni. 1991. Mbaracayú Nature Reserve Management Program. Asunción.
 Giraudo, A. R., Baldo, J. L., & R. R. Abramson. 1993. Aves observadas en el sudoeste, centro y este de Misiones (República Argentina), con la mención de especies nuevas o poco conocidas para la provincia. Notulas Faunisticas 49: 1–13.
 Hardy, J. W., Coffey, B. B., Jr., & G. B. Reynard. 1990. Voices of the New World Owls. Gainesville, FL. (Cassette).
 Hayes, F. E. 1995. Status, distribution and biogeography of the birds of Paraguay. Monogr. Field Ornithol. 1.
 Hayes, F. E., Scharf, P. A., & R. S. Ridgely. 1994. Austral bird migrants in Paraguay. Condor 96: 83–97.
 International Council for Bird Preservation. 1992. Putting biodiversity on the map: Priority areas for global conservation. Cambridge, U.K.
 Kerr, J. G. 1892. On the avifauna of the lower Pilcomayo. Ibis 6: 120–152.
 Narosky, T., & D. Yzurieta. 1987. Birds of Argentina and Uruguay: a field guide. Buenos Aires.
 Narosky, S., Fraga, R., & M. de la Peña. 1983. Nidificación de las aves Argentinas: Dendrocolaptidae y Funariidae. Buenos Aires.
 Nores, M., Yzurieta, D., & R. Miatello. 1983. Lista y distribución de las aves de Córdoba, Argentina. Bol. de Academia Nacional de Ciencias 56: 1–2.

- Olog, C. C. 1979. Nueva lista de la avifauna argentina. Tucuman.
- Podtiaguin, B. 1944. Catálogo sistemático de las aves del Paraguay. Aumentado por las contribuciones al conocimiento de la ornitología paraguaya. Rev. Soc. Cient. Parag. 5: 1–109.
- Remsen, J. V., Jr., & R. S. Ridgely. 1980. Additions to the avifauna of Bolivia. Condor 82: 69–75.
- Ridgely, R. S., & G. Tudor. 1989. The birds of South America: Volume 1, the Oscine Passerines. Oxford, U.K.
- Scott, D. A., & M. de L. Brooke. 1985. The endangered avifauna of Southeastern Brazil: a report on the BOU/WWF expeditions of 1980/81 and 1981/82. Pp. 115–139 in Diamond, A. W., & T. E. Lovejoy (eds.). Conservation of tropical forest birds. ICBP Technical Publication No. 4. Cambridge, U.K.
- Short, L. L. 1975. A zoogeographic analysis of the South American Chaco avifauna. Bull. Amer. Mus. Nat. Hist. 154: 165–352.
- Sibley, C. G., & B. L. Monroe, Jr. 1990. Distribution and taxonomy of birds of the world. Newhaven.
- Sick, H. 1993. Birds in Brazil: A natural history. Princeton.
- Stattersfield, A. J., Crosby, M. J., Long, A. J., & D. C. Wege. *In press*. A global directory of endemic bird Areas. Cambridge, U.K.
- Tobias, J. A., Catsis, M. C., & R. S. R. Williams. 1993. Notes on scarce birds observed in southern and eastern Brazil: 24 July to 7 September 1993. Cambridge, U.K.
- Varty, N., Bencke, G. A., Bernardini, L. de M., da Cunha, A. S., Dias, E. V., Fontana, C. S., Guadagnin, D. L., Kindel, A., Raymundo, M. M., Richter, M., Rosa, A. O., & C. S. Tostes. 1994. The ecology and conservation of the Red-spectacled Parrot *Amazona preteri* in southern Brazil. Final Report. Cambridge, U.K.

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