

New noteworthy records of bats for the Andean region of Venezuela and Colombia

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INTRODUCTION

The Venezuelan Andes constitute a prolongation of the “Cordillera Oriental” of the Colombian Andes, where two branches can be distinguished: 1) the “Cordillera de Mérida”, which extends toward the northeast and shows a discontinuity from the main cordillera called “Depresión del Táchira” (Táchira depression) and constitutes a geographic barrier for the faunal exchange between highland species from both cordilleras (Soriano *et al.* 1999); 2) the “Sierra de Perijá”, which is the northernmost part of the “Cordillera Oriental”.

The piedmont of the Venezuelan Andes, between 200 and 800 m elevation, is mainly a submontane forest (Ataroff & Sarmiento 2003), which forms a relatively continuous belt, permitting the transit of lowland animal species along the cordillera. Another ecological unit of lesser extent (that can reach 2000 m elevation) is the thorn shrub, which is found in certain dry inter-Andean valleys, and represent isolated enclaves of xerophytic biota (Soriano & Ruiz 2002, 2003). One of these dry valleys is located in the Táchira depression.

As a result of recent captures during a mist-netting program in thorn shrubs and forests we

report seven new bat records for the Andean region of Venezuela and one for the adjacent Colombia. These findings constitute important extensions in the distribution patterns of these bat species. All specimens examined are housed in the Colección de Vertebrados de la Universidad de Los Andes (CVULA), in Mérida (Venezuela). Measurements are given in millimeters.

ACCOUNT OF SPECIES

Pteronotus gymnonotus

Natterer, 1843

SPECIMENS EXAMINED (3). — Estado Táchira: El Palotal, 6 km SSE Ureña (7°52'N; 72°26'W), 320 m elevation; three adult males (CVULA-I- 6927, 6928, 6931).

MEASUREMENTS. — Mean and range in parentheses: Forearm length, 49.81 (49.08-50.71); condylobasal length, 16.85 (16.71-16.95); zygomatic breadth, 10.13 (10.09-10.20); rostral breadth, 7.56 (7.35-7.73); length of maxillary toothrow (C¹-M³), 7.35 (7.30-7.39); depth of cranium, 8.98 (8.87-9.09). These measurements are in agreement with those published by Smith (1972) for Venezuelan specimens of this species. Likewise, certain anatomical features such as: greater pubescence on the dorsally fused wing membrane, as well as ventral fur unicolorated allow to distinguish *P. gymnonotus* from *P. davyi* (Smith 1972; Simmons & Conway 2001).

REMARKS

Our specimens come from the Cúcuta-Ureña arid enclave in the Táchira depression, and represent the first record for the Venezuelan and Colombian Andes. Two specimens previously referred to *P. suapurensis* (= *P. gymnonotus*) collected at Agua Viva, 19 km N of Valera in the state of Trujillo, Venezuela (Smith 1972; Handley 1976), come from a locality out of the Andean region. This species seems to prefer dry environments (Handley 1976).

Lichonycteris obscura

Thomas, 1895

SPECIMENS EXAMINED (1). — Estado Zulia: El Tukuco, 46 km SSW Machiques (9°43'N; 72°47'W), 400 m; one pregnant female (CVULA-I-2650).

MEASUREMENTS. — Some external and cranial measurements of the female from El Tukuco are: Forearm length, 32.28; total length of the skull, 19.38; condylobasal length, 18.30; postorbital constriction, 4.01; breadth of braincase, 8.22; mastoid breadth, 8.19; length of maxillary toothrow, 6.27; breadth across upper molars (M²-M²), 4.29. Such measurements, as well as the color pattern of pelage agree with those reported by Ochoa *et al.* (1993) for southern Venezuelan specimens.

REMARKS

The geographic range of the species is known from few specimens collected in an extensive rainforests area of Central America, western Colombia, Amazonian region of Bolivia, Peru, Brazil and Venezuela in South America (Marinkelle & Cadena 1972; Handley 1976; Koopman 1982; Eisenberg 1989; Ochoa *et al.* 1993). Previous records of this species for Venezuela are two specimens from the southern Bolívar state (Handley 1976; Ochoa *et al.* 1993). Our record extends the geographic range of the species to the primary submontane forests of the Sierra de Perijá in northwestern Venezuela.

Mesophylla macconnelli

Thomas, 1901

SPECIMENS EXAMINED (2). — Estado Zulia: El Tukuco, 46 km SSW Machiques (9°43'N; 72°47'W), 400 m; one adult male (CVULA-I-2371). Estado Táchira: El Hatico, 3 km E Seboruco (8°9'N; 72°2'W) 1220 m; one adult male (CVULA-I-6878).

MEASUREMENTS. — Forearm length, 30.32, 30.71; greatest length of skull, 18.40, 18.35; zygomatic breadth, 10.34, 10.16; mastoid breadth, 9.35, 9.16; breadth of braincase, 8.13, 8.44; interorbital breadth, 4.54, 4.64; length of maxillary toothrow (C-M²), 6.23, 6.25; breadth across upper molars (M²-M²), 7.10, 7.02. These measurements, as well as general features of the specimens, agree with those done by Goodwin & Greenhall (1962).

REMARKS

This species inhabits the lowland rainforests from southern Costa Rica to Colombia, Venezuela, and northeastern Brazil (Eisenberg 1989). In Venezuela *M. macconnelli* has been recorded south of the Orinoco River, its delta, and the southwestern foothills of the Cordillera de

Mérida (Handley 1976). These captures represent both the first record for the Sierra de Perijá, and the first record for the species in the northwestern foothills of the Cordillera de Mérida. Likewise, those records establish the presence of the species for the Maracaibo Lake basin. Although this species seems to prefer humid environments, it has been referred as occasional in dry sites (Handley 1976). Our second specimen (CVULA-I-6878) comes from the arid enclave of La Quinta, which is characterized by a thorn shrub (Soriano & Ruiz 2003).

Vampiresa bidens
(Dobson, 1878)

SPECIMENS EXAMINED (2). — Estado Barinas: Parque Nacional Tapo Caparo, 4 km N Santa María de Caparo (7°45'N; 71°28'W), 340 m; one adult female (CVULA-I-6738) and one adult male (CVULA-I-6739).

MEASUREMENTS. — Forearm length, 37.32, 34.31; greatest length of skull, 19.93, 19.64; zygomatic breadth, 11.57, 11.45; mastoid breadth, 9.69, 9.90; postorbital constriction, 5.35, 5.28; length of maxillary toothrow (C-M²), 6.39, 6.32; breadth across upper molars (M²-M²), 8.29, 8.25; length of mandible, 12.50, 12.64; length of mandibular toothrow (C-M_{2/3}), 6.98, 6.73. These values are close of those referred by Davis (1975) for the Venezuelan specimens.

REMARKS

The geographic range of this bat was restricted to the lowland rainforests and llanos of northern South America, Amazonian Peru and Bolivia (Eisenberg 1989). In Venezuela it has been found in the humid lowlands south of the Orinoco River, and the only northern records are at Sierra de Perijá, Zulia state, and selvas de San Camilo, Apure state (Handley 1976; Linares 1998). Our specimens come from a submontane primary forest, and represent the first record of the species for the Cordillera de Mérida.

Thyroptera tricolor
Spix, 1823

SPECIMENS EXAMINED (1). — Estado Mérida: Río Quebrada de Piedras, 4 km SSE Nueva Bolivia

(9°7'N; 71°4'W), 240 m; one adult male, skull fragmented (CVULA-I-6588).

MEASUREMENTS. — Forearm length, 35.09; interorbital constriction, 2.67; length of maxillary toothrow (C-M³), 5.66; breadth across upper molars (M²-M²), 5.34; length of mandibular toothrow (C-M₃), 6.06. The measurements and morphological features of the specimen are very close with those done by Wilson & Findley (1977) for this species.

REMARKS

Thyroptera tricolor is known to occur in the lowland rainforests from southern Mexico to southern Brazil (Wilson & Findley 1977; Wilson & Reeder 1993). In Venezuela it has been recorded only from the eastern region and the southern Orinoco River (Handley 1976; Linares 1998). Our specimen extends the geographic range to the submontane forests of the Cordillera de Mérida in the Maracaibo Lake basin. Additional material will be necessary to clarify the subspecific status of this population, since it is located very close to undefined limit of distribution range of *T. t. tricolor* and *T. t. albiventer* (Wilson & Findley 1977).

Promops centralis
Thomas, 1915

SPECIMENS EXAMINED (1). — Estado Mérida: Road from Mérida to El Morro, 7 km SSW from Merida (8°32'N; 71°11'W), 2000 m; one juvenile male (CVULA-I-6419).

MEASUREMENTS. — Forearm length, 49.28; greatest length of skull, 20.03; condylobasal length, 18.55; breadth of braincase, 10.04; mastoid breadth, 10.42; postorbital constriction, 4.40; length of maxillary toothrow (C-M³), 7.21; breadth between canines (C¹-C¹), 4.54; breadth across upper molars (M²-M²), 8.25; length of mandible, 12.50; length of mandibular toothrow (C-M₃), 8.47. Although some measurements of our specimen are smaller, in general they are inside the range of variation referred to the species (Goodwin & Greenhall 1961; 1962; Laval 1969; Ojasti & Linares 1971; Ibáñez & Ochoa 1989; Simmons & Voss 1998). In addition, our specimen shows the tiny anterior upper premolar referenced by Ojasti & Linares (1971). Likewise, it also shows a very strongly arched anterior palate, dark brown dorsal pelage and ventral bicolored brown, and upper incisor very long and acute, which is in agreement with observation of Simmons & Voss (1998).

REMARKS

The known geographic range of this species includes the Yucatán Peninsula (Mexico), most Central America and South America including Guyana, Trinidad, Venezuela, western Colombia, Brazil and Peru to Paraguay (Goodwin & Greenhall 1961; Jones *et al.* 1988; Eisenberg 1989; Nogueira & Peracchi 1999). In Venezuela, the species has been recorded from Bolívar state in southern Orinoco River, in the eastern Llanos of Monagas state, and in the Cordillera de la Costa, between an elevation of 5 m and 980 m (Ojasti & Linares 1971; Handley 1976; Linares 1998). Our specimen comes from a montane cloud forest and represents both a new record for the Cordillera de Mérida, and new altitudinal record.

Eumops hansae

Sanborn, 1932

SPECIMENS EXAMINED (1). — Estado Mérida: Río Quebrada de Piedras, 4 km SSE Nueva Bolivia (Caja Seca) (9°7'N; 71°4'W), 240 m; one adult lactant female (CVULA-I-6606).

MEASUREMENTS. — Forearm length, 36.80; greatest length of skull, 18.99; condyloincisive length, 17.98; zygomatic breadth, 11.08; mastoid breadth, 9.80; braincase height, 6.11; postorbital constriction, 4.06; length of maxillary toothrow (C-M³), 7.01; breadth across upper molars (M²-M²), 7.94. These measurements as well as anatomical features match with those done previously for this species (Eger 1977; Ibáñez & Ochoa 1989; Brosset & Charles-Dominique 1990; Simmons & Voss 1998).

REMARKS

This species is known to occur in lowland forests of Peru, Bolivia, Brazil, Guyana, Venezuela, Panama, Costa Rica and Honduras (Eger 1977; Jones *et al.* 1988; Ibáñez & Ochoa 1989; Lee & Bradley 1992; Wilson & Reeder 1993). In Venezuela it has been reported from lowlands south of the Orinoco River, in the Llanos and Cordillera de la Costa (Handley 1976; Linares 1998). Our specimen was mist-netted over water in a patch of primary submontane forest and represents the first record of the species in the Venezuelan Andean region and the Maracaibo Lake basin.

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