

**MAMMALIA, CHIROPTERA, PHYLLOSTOMIDAE, *Lonchophylla pattoni*:
FIRST RECORD FOR ECUADOR**

**MAMMALIA, CHIROPTERA, PHYLLOSTOMIDAE, *Lonchophylla pattoni*:
PRIMER REGISTRO PARA ECUADOR**

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ABSTRACT

We report the first Ecuadorian record of *Lonchophylla pattoni* from the Province of Pastaza on the eastern versant of the Ecuadorian Andes collected at 980 masl, which constitutes the second known record for the species; the herein presented *L. pattoni* specimen represents a substantial increment on both latitudinal and altitudinal ranges for this recently described taxon.

Keywords: Bat; Ecuador; First record; Geographic extension; *Lonchophylla pattoni*.

RESUMEN

Reportamos el primer registro ecuatoriano para *Lonchophylla pattoni* colectado en la provincia de Pastaza en la vertiente oriental de Los Andes ecuatorianos a 980 msnm, que constituye el segundo reporte para la especie; el ejemplar que presentamos representa una ampliación sustancial tanto en el rango geográfico como altitudinal de esta especie recientemente descrita.

Palabras clave: Extensión rango geográfico; Ecuador; *Lonchophylla pattoni*; Murciélago; Primer registro.

Neotropical nectar-feeding bats in the genus *Lonchophylla* (Chiroptera: Phyllostomidae) have a wide geographic distribution occurring primarily in tropical forests from southern Nicaragua to southern Brazil and also a wide altitudinal range from the sea level up to 1350 m (Woodman & Timm 2006). The genus *Lonchophylla* has been the source of a recent systematic enthusiasm that has resulted in the description of several new species. Among newly recognized species *L. pattoni* (Woodman & Timm 2006) was described from a single specimen collected in the Reserva Cusco Amazónico (ca. 12°33'S, 69°03'W), at 200 m on the north bank of the Río Madre de Dios, 14 km east of Puerto Maldonado in the Province of Tambopata, Department of Madre de Dios, Perú (Figure 1).

Lonchophylla pattoni is one of the smallest representatives of the subfamily Lonchophyllinae in the size range that could lead to misidentification with *L. thomasi* or *Lionycteris spurrelli*.

Among bat specimens collected by the Texas Tech University Sowell Expedition 2001 to Ecuador, a male *Lonchophylla* specimen (TTU 84784) from the province of Pastaza on the eastern versant of the Ecuadorian Andes collected at 5 km east of Puyo, at the Safari Hosteria Park at 980 m (Figure 1) was preliminarily identified as *L. thomasi* due to its small skull size [greatest length of the skull (GSL) = 21.00 mm]. However, the *Lonchophylla* specimen from Pastaza (TTU 84784) shares the following discrete diagnostic characters mentioned in the *L. pattoni*

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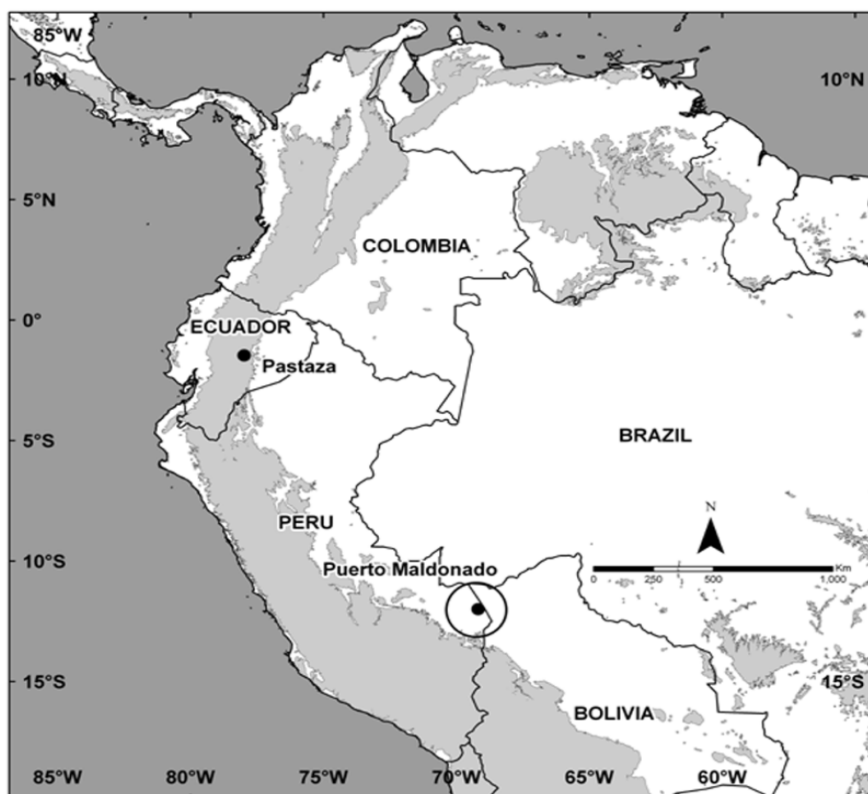


Figure 1. Type locality of *L. pattoni* in Puerto Maldonado, Perú (circled), and new record of *L. pattoni* (TTU 84784) for Puyo, Ecuador

description which differentiate this taxon from *L. thomasi*: Presence of a lingual cusp on P4; absence of deep groove along midline of posterior palate; short and acute v-shaped posterior margin of hard palate without peninsular projection (Figure 2); broadly inflated pterygoid process; deep basisphenoid pits, which are separated by a narrow steep-sided septum; a low and slender dentary with a low and rounded coronoid process, as well as a long articular process; presence of a posterior cusp on p2; presence of a gap between i2 and the canine which is as wide as length of i2. In addition, specimen TTU 87487 has the projected posterior margin of the infraorbital foramen typical of *L. pattoni*. However, measurements of the *Lonchophylla* specimen (TTU 84784) from Ecuador are smaller than those reported for the *L. pattoni* holotype (Table 1). In spite of the slight differences in size, our Ecuadorian specimen (TTU 84784) resembles *L. pattoni*. Specimen (TTU 84784) is the second

known record of the *L. pattoni* and represents a substantial extension in the geographic range of the species of more than ten degrees of latitude north, as well as an increment in the altitudinal range of the species.

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LITERATURE CITED

Woodman, N., R.M. Timm. 2006. Characters and phylogenetic relationships of nectar feeding bats, with descriptions of new *Lonchophylla* from western South America (Mammalia: Chiroptera: Phyllostomidae: Lonchophyllini). *Proc Biol Soc Wash.* 119: 437-76.

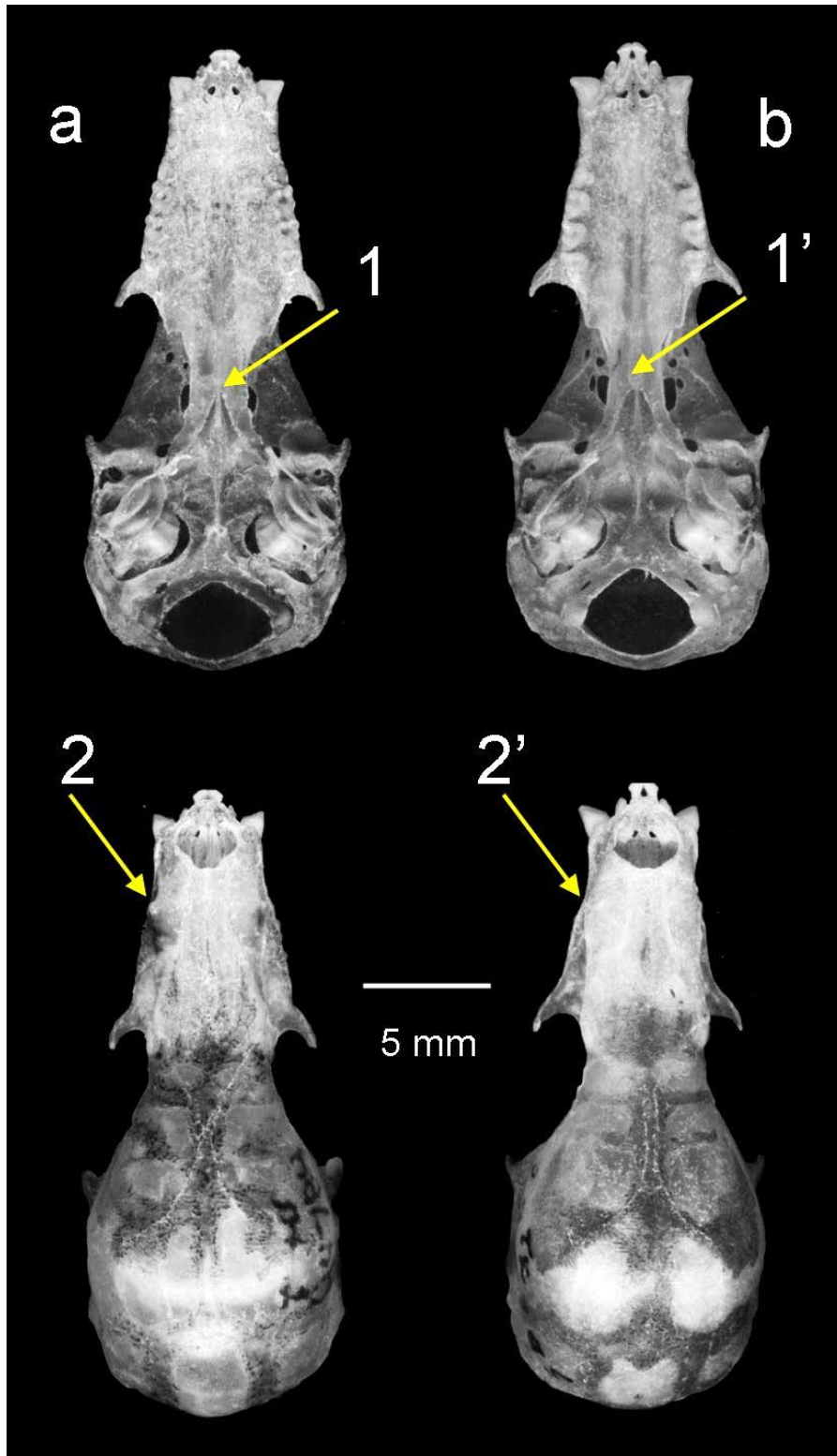


Figure 2. *Lonchophylla pattoni* specimen TTU-84784 from Puyo, Ecuador (a), and male *L. thomasi* specimen TTU 135795 from Nickerie, Surinam, showing differences in shape of the posterior edge of the palatal bone "V-shaped" in *L. pattoni* and more rounded in *L. thomasi*; as well as the projected posterior margin of the infraorbital foramen of *L. pattoni*, absent in *L. thomasi*

Table1
Cranial and forearm measurements of *L. pattoni* (TTU 84784) from Puyo, Ecuador and *L. pattoni* holotype

| N | FA | GSL | CB | PL | PO | ZB | BB | MB | TR | M-M | ML | MTR | MD |
|-------------------|-------|-------|-------|-------|------|------|------|------|------|------|-------|------|------|
| <i>L. pattoni</i> | | | | | | | | | | | | | |
| TTU 84784 (male) | 31.98 | 21.0 | 19.9 | 11.39 | 4.6 | 9.4 | 8.41 | 8.18 | 6.62 | 5.35 | 14.0 | 6.94 | 3.74 |
| ** KU 144232 | 34.1 | 22.3 | 20.6 | 12.1 | 4.1 | 8.8 | 8.3 | 8.8 | 7.2 | 5.2 | 14.2 | 7.6 | 3.9 |
| <i>L. cadenai</i> | | | | | | | | | | | | | |
| ICN 12210 (male) | 32.06 | 21.73 | 20.14 | 11.26 | 4.20 | 9.11 | 8.38 | 8.09 | 6.95 | 5.12 | 14.26 | 7.53 | 3.14 |
| ICN 9169 (male) | 32.00 | 21.52 | 20.0 | 11.63 | 4.30 | 9.20 | 8.45 | 9.10 | 6.97 | 5.23 | 14.00 | 7.62 | 3.56 |
| ** USNM 483359 | 31.90 | 21.70 | 20.0 | 11.60 | 4.10 | 9.20 | 8.70 | 9.20 | 6.90 | 5.23 | 13.70 | 7.30 | 4.00 |
| <i>L. thomasi</i> | | | | | | | | | | | | | |
| N=12 | 31.69 | 21.07 | 19.37 | 11.18 | 4.2 | 8.67 | 8.22 | 8.33 | 6.71 | 5.06 | 13.89 | 6.97 | 3.42 |

Greatest length of skull (GLS); Condylar basal length (CB); Palatal length (PAL); Post orbital breadth (PO); Zygomatic Breadth (ZB); Braincase Breadth (BB); Mastoid Breadth (MB); Maxillary tooth row (C-M3); Breadth across molars (M-M); Length of the mandible (ManL); Length of the mandibular tooth row (MandTR); Height of the coronoid process (COR); and Forearm length (FA) ** Holotype

APPENDIX I

SPECIMENS EXAMINED

Lonchophylla cadenai (2).- COLOMBIA: *Risaralda*: Pueblo Rico, Santa Cecilia, left margin of Rio San Juan (ICN 12210); *Valle del Cauca*: 29 km SE of Buenaventura; east bank of Río Zabaletas, across from the village of Zabaletas (ICN 9169).

Lonchophylla pattoni (1).- ECUADOR: *Puyo*: Safari Hosteria Park at 980 m (TTU 84784).

Lonchophylla thomasi (12).- COLOMBIA: *Boyacá*: Puerto Boyacá, Puerto Romero, La Cristalina, Quebrada La Cristalina (ICN 14483); Puerto Boyacá, La Fiebre, Puerto Romero, 1 Km. Campamento Techint, Quebrada La Fiebre (ICN 15853); *Guainía*: Serranía de Naquén (ICN 12026); *Meta*: Puerto López, Mengua, Finca El Lagunazo (ICN 9479); San Juan de Arama, parte norte Serranía de La Macarena, Caño La Curia (ICN 10281); *Putumayo*: Puerto Leguizamo, El Guadual, Finca de Bolívar López, Lomas II, Parque Nacional Natural La Paya (ICN 13742-44); *Vaupés*: La Libertad, Serranía de Tatira (ICN 12736-37); *Vichada*: Centro Experimental Gaviotas (ICN 9636). SURINAME: *Nickerie*: (TTU-135795).