

SIGNIFICANT RANGE EXTENSION OF THE GIANT
ANDEAN FRUIT BAT, *STURNIRA ARATATHOMASI*

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The two largest species of the bat genus *Sturnira*, *S. magna* and *S. aratathomasi*, are associated in the northern Andes of tropical South America. The reported distribution of *S. magna* includes tropical and subtropical regions in the Andean eastern slopes and adjacent Amazonian lowlands from central Colombia southward to northwestern Bolivia (Tamsitt and Hauser, 1985). Whereas *S. magna* inhabits an elevational range from 200 to 2300 meters, the few localities for *S. aratathomasi* characterize a premontane and montane lifezone (1650 to 2800 meters—Alberico, 1987; Soriano and Molinari, 1987). The known range of *S. aratathomasi* is discontinuous. This bat has been reported in southwestern Colombia from the vicinity of Pance (type locality) and three other localities in the Cordillera Occidental, two localities in the Cordillera Central, and one additional record from the Cordillera Oriental. The remaining locality of record is situated in the Cordillera de Mérida of northwestern Venezuela. Two of the 17 known specimens came from an unspecified locality in Ecuador. This hiatus between the extreme localities and the fact that these records represent montane environments in several cordilleras suggest that *S. aratathomasi* probably has a wide distribution in the northern Andes (Soriano and Molinari, 1987).

A juvenile male (LSUMZ 21484) of *S. aratathomasi* from the Departamento de Amazonas, northern Perú, is present in the mammal collection of the Museum of Zoology, Louisiana State University. The bat was mist-netted on 29 August 1978 east of La Peca, at 3165 meters in the Cordillera Colán. Fitzpatrick and O'Neill (1979) judged this locality to be between 12 and 20 kilometers eastward from La Peca along a trail in stunted cloud forest (approximately 5°34'S, 78°17'W). The Amazonas specimen is the first documentation of *S. aratathomasi* from Perú and extends its known Andean range more than 800 kilometers southward from Huila, Colombia (1°36'N, 75°56'W).

Our specimen is represented by a museum skin with skull and partial skeleton; the following external measurements (mm) were recorded from the label: forearm length, 58.5; total length, 88.0; hind foot length, 17.5; ear length, 20.5; weight, 40.0 grams. The skull possesses all of the morphological characteristics outlined by Peterson and Tamsitt (1968) for *S. aratathomasi*. The pelage is not washed in the grayish tone that generally characterizes bats with unfused manal epiphyses. The distal tips of the dorsal hairs are dark brown (Olive Brown of Ridgway, 1912), followed by a wide white subterminal band. Cranial measurements (nearest 0.05 mm) of our juvenile specimen are compared with the averages of those for three adult males (Colombia) and four adult females (Colombia, Ecuador), respectively, as follows: condylobasal length, 24.2, 26.15, 26.15; greatest length (without incisors), 25.75, 27.75, 27.75; mastoid breadth, 12.8, 14.95, 14.75; length of upper toothrow (alveolar), 7.6, 7.2, 7.65; width across upper molars (alveolar), 9.4, 9.65, 9.9.

In their description, Peterson and Tamsitt (1968) stated that the lower incisors of *S. aratathomasi* are bifid. The lower incisors of LSUMZ 21484 are unworn and are clearly trifid with smaller, but distinct, middle cusps wedged between lateral lobes. The outer incisors are bifid with enlarged medial lobes. A comparison of molar structure in *S. aratathomasi* was limited to m1 and m2, "which have distinct lingual and buccal cusps not unlike those of *S. lilium*" (Peterson and Tamsitt, 1968:3). Miller (1907) labelled the buccal cusps on the first two lower molars in *S. lilium* as the protoconid followed by the

hypoconid. Both molars of this species possess distinct protoconids, whereas the hypoconid is reduced on m1 and barely indicated on m2. As both the lingual and labial molar profiles are sharply incised in *S. aratathomasi*, the regions of the protoconid and hypoconid are well separated and distinct. Also, in *S. aratathomasi*, no cusp is apparent in the position designated by Miller (1907) as the paraconid on m1 in *S. lilium*. We found the occlusal shape of m1 in both *Sturnira* to be similar, so we conclude that the cusp in the paraconid position in *S. aratathomasi* is reduced but not lost.

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