

# The first distribution record of *Sciurus pyrrhinus* Thomas, 1898 (Rodentia: Sciuridae) from Ecuador

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**ABSTRACT:** This study presents the first record for Ecuador of *Sciurus pyrrhinus*. The record is based in an old specimen housed at the American Museum of Natural History. The specimen is compared morphologically with the similar species *S. igniventris*.

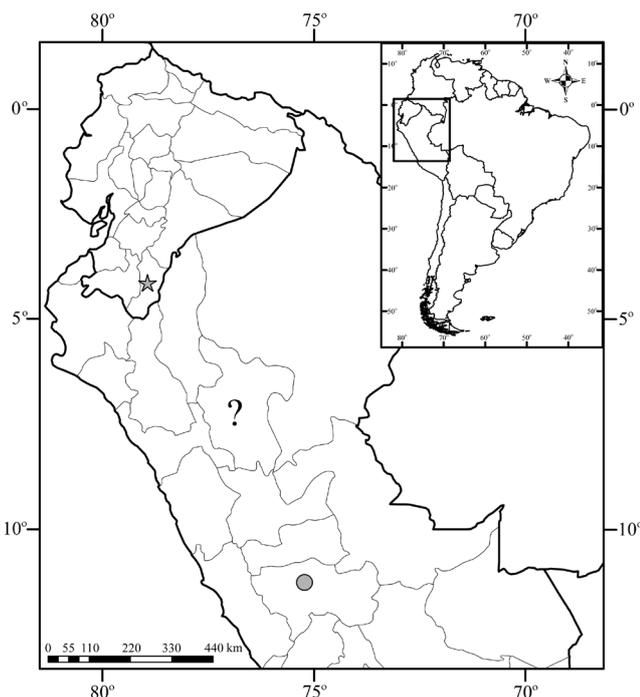
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*Sciurus pyrrhinus* Thomas, 1898 is endemic to the eastern slope of the Andes in Peru (Allen 1916; Emmons and Feer 1997; Eisenberg and Redford 1999; Thorington and Hoffmann 2005). *Sciurus pyrrhinus* species does not appear on any list of mammals from Ecuador (Tirira 2007; Albuja 2011). Examination of specimens housed at the mammal collection of the American Museum of Natural History revealed the specimen of *S. pyrrhinus* from the eastern Andes of Ecuador (AMNH 60507). This one adult male specimen was collected on 18 November 1920 by H. E. Anthony. The information provided on the specimen tag indicates that the specimen (AMNH 60507) was collected in Zamora-Chinchipec Province, Ecuador, on the “Río Zamofa” (Río Zamora) on the trail from Loja to Zamora, “Guayaba” near 04°00' S, 79°00' W. The next nearest records of *S. pyrrhinus* are from 680 Km southeast

on the eastern slope of the Andes in central Peru (Emmons and Feer 1997; Eisenberg and Redford 1999) (Figure 1).

*Sciurus pyrrhinus* is similar in appearance to *S. igniventris* (Wagner, 1842) (Hershkovitz 1959; Patton 1984). *Sciurus pyrrhinus* is smaller than *S. igniventris* (see measurements below for comparison). The dorsum of both species is a dark agouti reddish brown (Figure 2A). The dorsum of *S. pyrrhinus* becomes progressively darker from head to tail and the dorsum is more uniform than in *S. igniventris*. There are contrasting orange postauricular tufts in both *S. pyrrhinus* and *S. igniventris*. The ventral fur of *S. pyrrhinus* (in contrast to *S. igniventris*) can be unadulterated white, red, or red with patches of white (Allen 1915). Whereas the ventral fur of *S. igniventris* is orange or white (Figure 2B). The base (proximal end) of the tail is almost black in *S. pyrrhinus*. The tail hair of *S. pyrrhinus* is bicolored with a dark black basal half and a bright orange tip. The tail appears fringed orange. Most of the dorsum of the forearm and hands is light orange (Figure 2A). The ventral surface of the forearm is white and trimmed in orange (Figure 2B). The dorsal and ventral surface of the hind feet is orange (Figure 2). Some basic measurements (from the tag) are: total length, 536 mm; tail length, 275 mm; hind foot length, 65 mm (AMNH 60507). The type specimen (BMNH 97.10.3.12.) is a reproductive female from Peru, Department of Junin, Vitoc, Garita del Sol (Thomas 1898) and its measurements are: total length, 448 mm; head and body length, 240 mm; tail length, 208 mm; hind foot length, 59 mm (Allen 1915).

The skull of *S. pyrrhinus* has a short broad rostrum. The sphenopalatine vacuities are short (about 2 mm). These vacuities are smaller or absent in *S. igniventris*. Some skull measurements of AMNH 60507 and from the type specimen in parenthesis are: greatest length of skull, 60.64 mm (52 mm); zygomatic breadth, 34.72 mm (33.5 mm); interorbital breadth (taken at the supraorbital notch), 19.41 mm (18 mm); breadth of brain case (taken posterior to the zygomatic arch), 24.41 mm (-); length of nasals, 19.84 mm (16.5 mm); diastema, 16.36 mm (15.2 mm); maxillary toothrow, 9.67 mm (9.6 mm); the size of the orbit

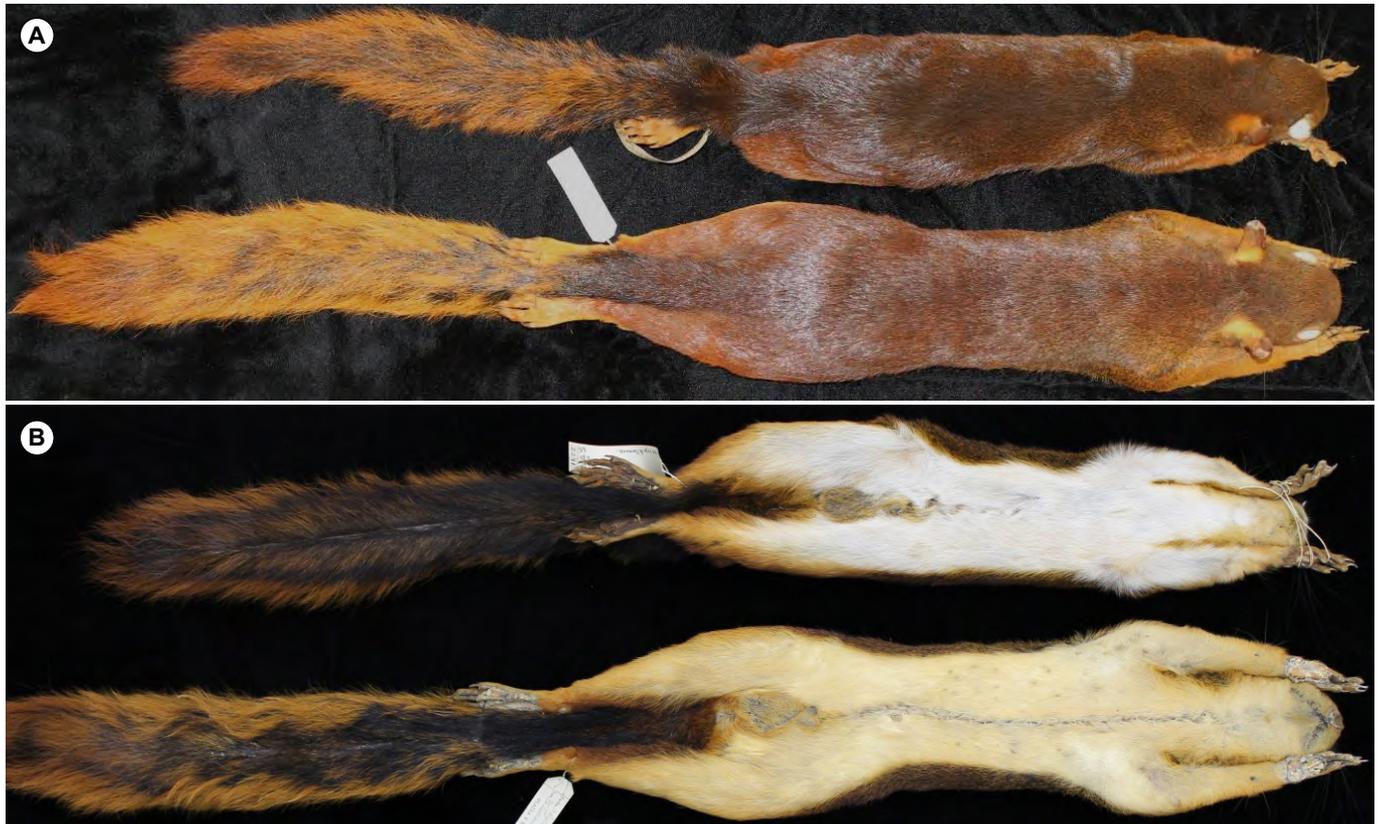


**FIGURE 1.** New record of *Sciurus pyrrhinus* from Ecuador (star) and the nearest record from Peru (circle).

(measured vertically from the supraorbital flange to the zygomatic arch) is 13.72 mm (-). For further comparison the skull measurements of four specimens of *S. igniventris* (AMNH 68258, 73385, 73388, 73892) from the eastern Andes of Ecuador and Peru are as follows: greatest length of skull, 63.7–65.28 mm; zygomatic breadth, 36.61–36.76 mm; interorbital breadth (taken at the supraorbital notch), 19.54–22.68 mm; breadth of brain case (taken posterior to the zygomatic arch), 23.88–25.17 mm; length of nasals, 20.54–22.25 mm; diastema, 17.89–18.61 mm; maxillary

toothrow, 10.23–10.56 mm. The size of the orbit is: 13.71–14.33 mm.

This record is important in that it adds an additional mammal species to the fauna of Ecuador which now numbers 400. Furthermore, it is important to recognize that this species does occur in Ecuador because of the similarity (and potential for misidentification) between *S. pyrrhinus* and *S. igniventris*. The proper identification of species has a great impact on how we think about the diversity, ecology and conservation of tropical forest.



**FIGURE 2.** A) Dorsal view of *Sciurus pyrrhinus* (top, AMNH 60507) and *Sciurus igniventris* (bottom, AMNH 73892); B) Ventral view of *Sciurus pyrrhinus* (top, AMNH 60507) and *Sciurus igniventris* (bottom, AMNH 73892).

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