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A new species of broad-nosed bat *Platyrrhinus* Saussure, 1860 (Chiroptera: Phyllostomidae) from the Guianan Shield

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Abstract

A new species of broad-nosed bat *Platyrrhinus* Saussure, 1860 (Chiroptera: Phyllostomidae: Stenodermatinae) from the Guianan Shield is described based on molecular and morphological data. Previously confused with *P. helleri* and *P. recifinus*, the new taxon is currently known from only Guyana and Suriname and is most closely related to *P. recifinus* from eastern Brazil and not to the two sympatric species (*P. fusciventris* and *P. incarum*) also recently recognized as distinct from *P. helleri*. Morphometrically the new taxon overlaps with the smaller species of the genus (*P. angustirostris*, *P. brachycephalus*, *P. fusciventris*, *P. helleri*, *P. incarum*, and *P. matapalensis*), but forms a different cluster from the larger *P. recifinus*. Morphologically the new taxon is distinguished from its congeners by a combination of external and cranio-dental characteristics. *Platyrrhinus* now includes 21 species making it the most speciose genus in the Neotropical family Phyllostomidae.

Key words: Guianan Shield, Phyllostomidae, Phylogeny, *Platyrrhinus*, Neotropics, systematics

Introduction

The genus *Platyrrhinus* Saussure, 1860, belongs to the Neotropical bat family Phyllostomidae that ranges from southwestern United States to Paraguay. It includes more than 160 species, the most diverse family of bats in the Neotropics, which together exhibits more variation in morphological features and feeding ecology than any other family-level group of mammals (Simmons 2005; Gardner 2008a; Baker *et al.* 2012). Phyllostomid bats exploit an unusually diverse array of feeding habits including sanguivory, insectivory, carnivory, omnivory, nectarivory, polinivory, and frugivory (Wetterer *et al.* 2000; Baker *et al.* 2012).

Platyrrhinus includes at least 20 species of frugivorous bats endemic to the Neotropics (Velazco *et al.* 2010). The combined geographic ranges of these species extends from southern Mexico into Paraguay and northern Argentina (Velazco & Patterson 2008; Velazco *et al.* 2010). Species of *Platyrrhinus* occur primarily in tropical lowland and montane forest from sea level to at least 2,550 m (Gardner 2008b; Velazco *et al.* 2010).

Platyrrhinus is diagnosed from other genera of the subfamily Stenodermatinae by a combination of three characters: two accessory cusps on the posterior face of P4 (Velazco 2005, figure 12), presence of three upper molars, and presence of a fringe of hair along the trailing margin of the uropatagium. Although other genera also have these characters, no other genera possess all three at the same time (Lim 1993).

During recent years, the use of morphometric, morphological, and molecular techniques to study *Platyrrhinus* has enormously improved our knowledge of its taxonomy and phylogenetic relationships (Velazco & Solari 2003; Velazco 2005; Velazco & Patterson 2008; Velazco & Gardner 2009; Velazco *et al.* 2010). But still some taxa remain undescribed.

The *Platyrrhinus helleri* species complex was reviewed by Velazco (2005), Velazco and Patterson (2008), and Velazco *et al.* (2010). They found that this once widespread species, occurring from Oaxaca and Veracruz (Mexico) to Peru, Bolivia, amazonian Brazil, northern South America, and Trinidad, was a composite of at least five species:

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