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## A new species of *Lonchophylla* (Chiroptera, Phyllostomidae) from the Atlantic Forest of southeastern Brazil, with comments on *L. bokermanni*

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### Abstract

We examined Brazilian species of the nectar-feeding bats genus *Lonchophylla* (Phyllostomidae, Lonchophyllinae) to clarify the identity of *Lonchophylla bokermanni* and to determine the distribution of this and other species of *Lonchophylla* in eastern Brazil. As a result, we have found sufficient differences between Cerrado populations (including the type locality of *L. bokermanni*) and populations inhabiting the Atlantic Forest of southeastern Brazil, which warrant the treatment of the Atlantic Forest populations as a separate and new species. We describe this new species here as *Lonchophylla peracchii*, **sp. nov.** The new species appears to be restricted to the Atlantic Forest, whereas *L. bokermanni* is found only in Cerrado habitats.

**Key words:** Atlantic Rainforest, Cerrado, morphology, morphometrics, South America

### Introduction

The Lonchophyllinae (Phyllostomidae) comprises a complex of Neotropical nectar-feeding bats characterized by elongated skulls with long muzzles and long, extensible tongues that lack a paintbrush tip. Each side of the tongue has a deep longitudinal groove bordered by short hair-like papillae (Griffiths 1982; Griffiths & Gardner 2008). The four genera currently recognized are: *Lonchophylla* Thomas, *Lionycteris* Thomas, *Platalina* Thomas, and *Xeronycteris* Gregorin and Ditchfield. Molecular analyses have recovered *Lonchophylla* as paraphyletic (e.g., Dávalos & Jansa 2004; Datzmann *et al.* 2010; Dávalos *et al.* 2012); but as currently understood, this genus comprises small to medium-sized species having unreduced molar cusps in contrast with the dentitions of other lonchophyllines. Other features used to distinguish *Lonchophylla* from the other three genera include the bases of dorsal fur paler than tips; absence of conspicuous fur on uropatagium; narrow, anteroposteriorly elongated premolars, and conspicuously enlarged, procumbent upper inner incisors (Griffiths & Gardner 2008).

*Lonchophylla* has been the subject of several recent taxonomic studies, with 9 of the 14 valid species described since 1978, and 6 of these since 2004 (Dávalos 2004; Albuja & Gardner 2005; Woodman & Timm 2006; Woodman 2007; Dávalos & Corthals 2008; Griffiths & Gardner 2008). Four species are known from Brazil (Peracchi *et al.* 2011; Paglia *et al.* 2012). *Lonchophylla bokermanni* Sazima, Vizotto & Taddei, 1978 and *L. mordax* Thomas, 1903 are endemic; the former recorded in the Cerrado and Atlantic Forest, and the latter in all major habitat zones along the eastern coast. *Lonchophylla dekeyseri* Taddei, Vizotto & Sazima, 1983 has been found in low numbers in the Cerrado of midwestern and northeastern Brazil, and in eastern Bolivia (Emmons *et al.* 2006; Griffiths & Gardner 2008; Aguiar *et al.* 2010). *Lonchophylla thomasi* J. A. Allen, 1904 is widely distributed from northern Bolivia and adjacent Brazil, northward into Panama (Simmons 2005; Griffiths & Gardner 2008). All recent taxonomic assessments have focused on the other 10 known species, which are distributed from Peru northward along or adjacent to the Andes into Central America (Dávalos 2004; Albuja & Gardner 2005; Woodman & Timm 2006; Woodman 2007; Dávalos & Corthals 2008; Griffiths & Gardner 2008).