



A new species of *Sturnira* (Chiroptera: Phyllostomidae) from the Choco forest of Ecuador

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Abstract

Sturnira perla, the new species described herein, is diagnosed as an independent phylogenetic lineage in hypotheses derived from mitochondrial sequences, and shows acceptable distances in terms of genetic divergence. This description also relies on the statistical interpretation of morphological dissimilarity and overlap, and avoids qualitative judgments of character variation. Overall, this new species is characterized by a spherical skull, noticeable round and robust, with pronouncedly curved zygomatic arches. Statistical evidence that supports the discrimination of other species in *Sturnira*, based on external characters such as pelage coloration or number of hairs, is absent in the literature. In this sense, the geometry of the skull for this newly described species shows the sharpest morphological boundaries, relative to other closely related and sympatric taxa. This new species is likely endemic to the Choco forest, specially at its southern limits. This is an area known for its high levels of endemism. The magnitude of environmental disruption in the Choco and the potential rarity of this new species may be negatively affecting its probability of survival.

Key words: Choco, endemism, geometric morphometrics, new species, species boundaries, *Sturnira*

Introduction

Most previous species descriptions for the genus *Sturnira* coincide, implicitly or explicitly, with the evolutionary lineage concept (Mayden 1997). Hence, species have been considered as independent historical entities, often represented as terminal branches in phylogenetic trees. It is along the topology of one of these trees that Pacheco and Patterson (1991) recognized a previously undescribed taxon in phylogenetic hypotheses and named it as *Sturnira* sp. A (i.e. “EPN E-6722”). This last specimen was “made available” by Luis Albuja, who also mentions it as an undescribed species (Albuja, 1999). Along in the same chapter on *Sturnira*, Albuja (1999) mentioned *S.* sp. B, as a second undescribed species (nowhere, in his book, does Albuja make reference to catalog numbers, except when