

New cytogenetic data of *Artibeus (Dermanura) glaucus* (Chiroptera, Phyllostomidae) and expansion of geographic limits for Brazil.

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INTRODUCTION & AIM

- *Artibeus (Dermanura) glaucus* has a Neotropical distribution, occurring in Venezuela, Colombia, Peru, and Bolivia.
- The aim of this study is to characterize the cytogenetics of *A. glaucus* to understand the chromosomal diversity within the subgenus *Dermanura* and to observe chromosomal characteristics that may aid in the cytotaxonomy of the group for Brazil.

METHOD

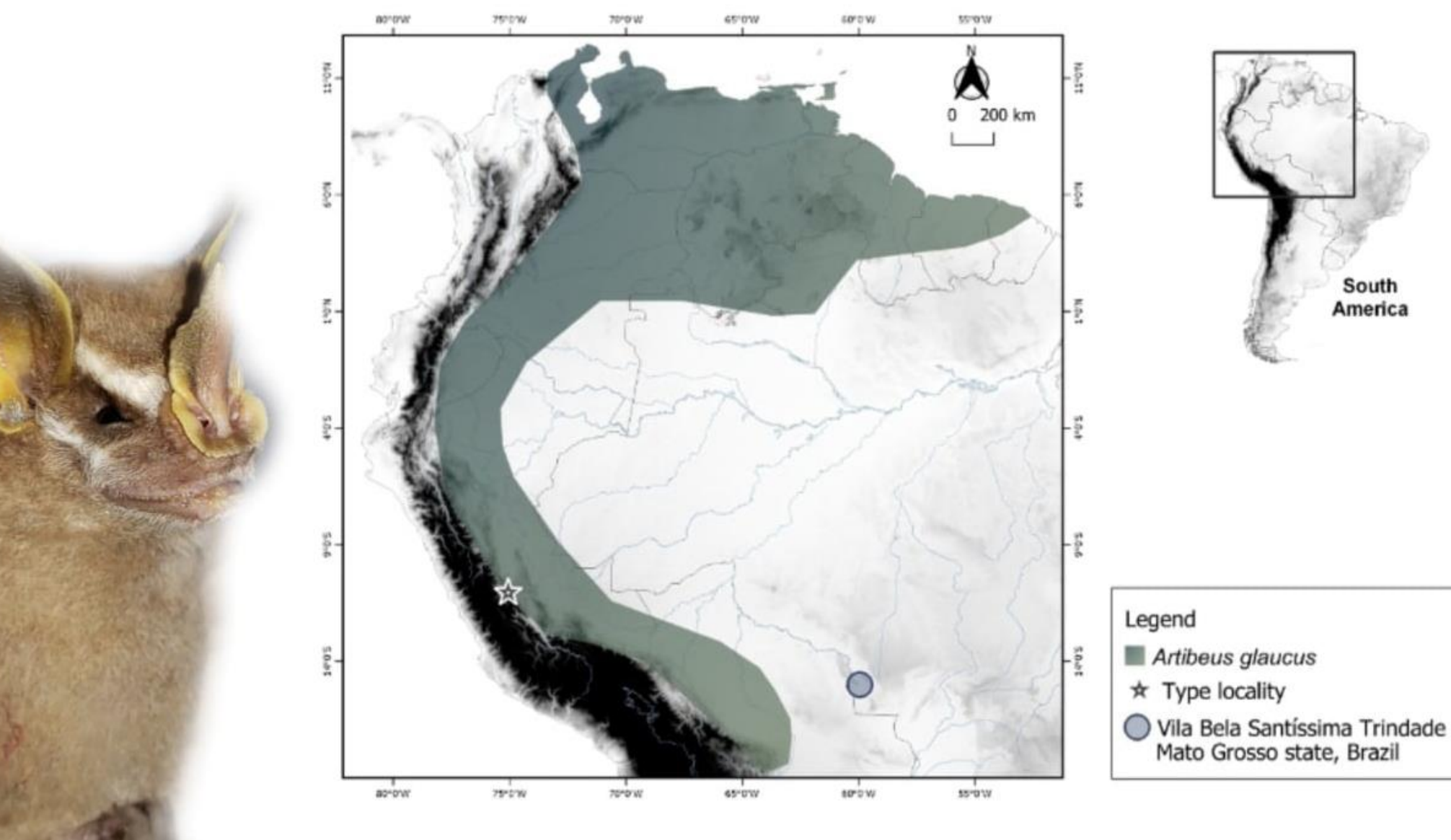


Figure 1. Geographic distribution of *A. glaucus* (Green area is according to IUCN – International Union for Conservation of Nature).

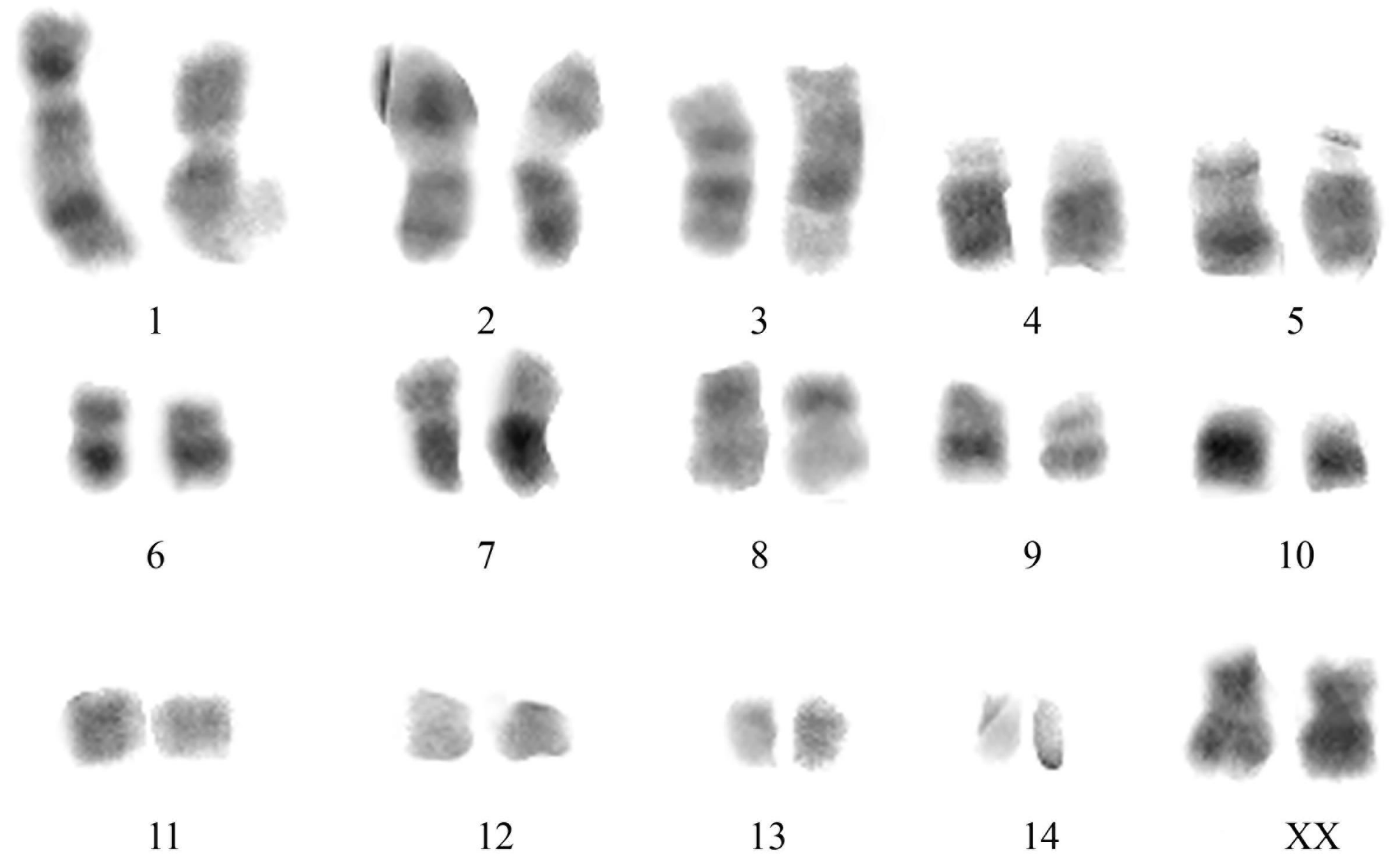
- The specimen was collected in Brazil at the Serra Ricardo Franco State Park, located in the city of Vila Bela da Santíssima Trindade, Mato Grosso (MT). Metaphase preparations were made in the field, stained with Giemsa for laboratory analysis, and subjected to banding techniques.
- G-banding was performed in a water bath at 45°C for 5 seconds, immersing the samples in a 2xSSC solution, followed by Giemsa staining for analysis and photography of the metaphases.
- C-banding was achieved using 5% barium in a water bath at 50°C, after a washing process for 10 minutes in 0.2% HCl.

RESULTS & DISCUSSION

- The cytogenetic analysis of *A. glaucus* demonstrated $2n=30$ for females and $NFa=56$. The X chromosome is large and metacentric. *A. glaucus* exhibited karyotypic conservation in its diploidy and number of autosomal arms among its sister species within the subgenus. However, a change in centromeric position is observed. In the sister specimens, the X chromosome is acrocentric, while in *A. glaucus*, it is metacentric.
- The C-banding technique revealed centromeric regions in almost all chromosomes.

- The data indicate a chromosomal conservation in the subgenus and a probable extension of the geographic distribution to Brazil, in addition to increasing the area of sympatry with its phylogenetic sister species.

A.



B.



Figure 2. A G-band and B C-band karyotypes of *A. glaucus*.

CONCLUSION

These findings may support conservation guidelines and improve knowledge on its evolutionary history and biodiversity.