

## A new karyotype for the two-toed sloth *Choloepus didactylus* (Magalonychidae, Xenarthra)

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### Abstract/Resumo

Xenarthra, one of the four mammalian superorders, is exclusively found in Central and South America and is possibly positioned at the base of the Eutherian phylogenetic tree. Cytogenetic studies of this group are very few and mainly restricted to the description of the karyotypes after conventional staining, with just a few reported banding patterns. We analyzed the chromosomes of a male *Choloepus didactylus* (Linnaeus's two-toed sloth) from Rondônia after GTG- and CBG-banding and silver staining of the nucleolus organizer regions (Ag-NOR). Our specimen presented a karyotype with  $2n=51$ ,  $NF=60$ , which has not been reported yet for this species. The GTG-banding allowed us to establish the correspondence among all chromosome pairs and was also important to verify a Y/18 autosome translocation, which seems to be characteristic of *Choloepus*. CBG-banding revealed pericentromeric heterochromatin in all chromosomes, except for the X. Four medium acrocentric autosomes presented Ag-NORs in their short arms. Until now the diploid numbers described for the few individuals of *C. didactylus* analyzed range from  $2n=52-65$ . The finding of a new karyotype with  $2n=51$  in our specimen reinforces the need of further studies of this species, which is also taxonomically poorly understood and probably contains several still unidentified taxa. In addition, chromosome studies in Xenarthra are very likely to yield important insights into mammalian genome evolution.

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