

## SOCIAL ORGANISATION OF XENARTHTRANS

Congresso Internacional de Conservação de Xenarthra., 1ª edição, de 30/11/2020 a 03/12/2020  
ISBN dos Anais: 978-65-86861-64-8

MAKUYA; Lindelani <sup>1</sup>, SCHRADIN; Carsten <sup>2</sup>

### RESUMO

Xenarthrans, which are the sloths, anteaters and armadillos, are one out of four superorders within the placentals, making them an important taxon to study for understanding mammalian social evolution. The Xenarthra have a confined distributional range in South America and comprise 31 species, which have been considered to be solitary living. Within a project to understand variation in social organisation in all mammals, we conducted a review of the primary literature with the aims to determine what forms of social organisation have been observed in the field in Xenarthrans. The social organisation is part of the social system and describes the composition of social units, i.e. whether individuals live solitarily, in pairs, or in groups of different composition. In total we found 4510 articles (1801 for Pilosa and 2709 for Cingulata) of which 70 (34 for Pilosa and 36 for Cingulata) were searched in detail for information. Usable data on social organisation was found in only six articles (four for Pilosa and two for Cingulata). While it is often assumed that Xenarthrans are strictly solitary, we only found two species to fit this predicted pattern (Southern naked-tailed armadillo, *Cabassous unicinctus*, and Giant anteater, *Myrmecophaga tridactyla*). Three species were found to show intra-specific variation in social organisation, with all three species having solitary individuals of both sexes. In the Pale-throated three-toed sloth, *Bradypus tridactylus*, pair-living and multi-female groups were also reported. In Linnaeus's two-toed sloth, *Choleopus didactylus*, and Southern long-nosed armadillo, *Dasyus hybridus*, pairs were observed. No useable information was available for the remaining 26 species. Many publications were not useable to reliably identify the social organisation as crucial information was missing, such as data on sleeping sites. Our study shows that currently little information is available for social organisation of Xenarthrans, that many studies do not provide the needed information (even though researchers might have collected this information), that all studied Xenarthrans can be solitary, but that intra-specific variation in social organisation is also common in Xenarthrans.

**PALAVRAS-CHAVE:** Comparative study, Field data, Intraspecific variation, Social organisation, Social system

<sup>1</sup> Department of Zoology and Entomology - University of Pretoria - South Africa, lindelani.makuya@zoology.up.ac.za

<sup>2</sup> CNRS - UMR7178 - 67087 Strasbourg - FranceSchool of Animal, carsten.schradin@iphc.cnrs.fr