THEY WERE WHAT THEY ATE?: ECOLOGICAL NICHE OF MACRAUQUENIDS (MAMMALIA: LITOPTERNA) FROM THE QUATERNARY OF SOUTH AMERICA

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The Macraucheniidae is a lineage of South America endemic mammals originated during early Neogene. The Quaternary representants of Macraucheniidae are *Macrauchenia patachonica* and *Xenorhinotherium bahiense*, which are sister-taxa. Additionally, they have separated geographical distribution, the first represents an austral biogeographical component, while the latter is a boreal one; occurrence pattern probably drove by paleoecological aspects. Analyses of Dental Microwear (DM), Occlusal Enamel Complexity Index (OEI) and Ecological Niche Modeling (ENM) were conducted to recognize these paleoecological aspects. The DM gave insights that both species were traditional grazers. The OEI analysis reached intovery similar high values between *M. patachonica* and *X. bahiense*, indicating abrasive diet, according to DM results. Isotopic studies in current literature indicate a diet based on C3 plants for both species. However, when δ13C iscalibrated with *M. patachonica* and *X. bahiense* estimated body masses, the updated isotopic values indicate that they were exclusive C3 grazers. Thus, they might have overlapped their ecological niches regarding feeding habits (C3 grazers). However, the ENM results suggested that *M. patachonica* (austral component) would be more suitable to drier conditions in sub-tropical to temperate ecosystems, while *X. bahiense* (boreal component) would be to environments with well distributed rain during the year in Tropical ecosystems. Nevertheless, despite their close phylogenetic relationship and diet overlap, *Macrauchenia patachonica* and *Xenorhinotherium bahiense* did not compete, due distinct environmental suitability, and therefore, they had distinct ecological niches.

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