

## A new proterochampsid archosauriform from the Middle–Upper Triassic of Southern Brazil

Rodrigo T. Müller Acta Palaeontologica Polonica 70 (1), 2025: 7-16 doi:10.4202/app.01204.2024

Proterochampsidae is a clade of carnivorous archosauriforms that lived during the Triassic and is characterized by an elongated rostrum with dorsally oriented external nares, and a unique pes configuration. Although the majority of proterochampsids are found in South America, recent phylogenetic studies suggest a broader geographical distribution for this clade. Most proterochampsids are known from cranial remains; if postcranial elements are known they are frequently poorly preserved. This study describes a new proterochampsid, Retymaijychampsa beckerorum gen. et sp. nov., from the Middle-Late Triassic, based on an almost complete and articulated hindlimb. The holotype was excavated at the Linha Várzea 2 (Becker) Site, located in the municipality of Paraíso do Sul, Rio Grande do Sul, Brazil. The fossils from this locality places it within the Dinodontosaurus Assemblage Zone, which is Ladinian to early Carnian in age according to biostratigraphic investigations. The new taxon is the second proterochampsid described from the Pinheiros- Chiniquá Sequence and represents one of the oldest known members of the clade worldwide. An interesting aspect of R. beckerorum gen. et sp. nov. is its phylogenetic position because it is more closely related to *Proterochampsa* than to rhadinosuchine proterochampsids. Therefore, the discovery of the new proterochampsid partially fills a long ghost lineage extending from the Middle Triassic to the early Late Triassic. Furthermore, the presence of two proterochampsid species within the Pinheiros-Chiniquá Sequence deposits supports the hypothesis of significant ecomorphological diversity among proterochampsians in Triassic environments.

**Key words:** Archosauromorpha, Proterochampsia, Proterochampsidae, phylogeny, Carnian, Ladinian, South America, Brazil.

Rodrigo T. Müller [rodrigotmuller@hotmail.com; ORCID: https://orcid.org/0000-0001-8894-9875], Centro de Apoio à Pesquisa Paleontológica da Quarta Colônia, Universidade Federal de Santa Maria, São João do Polêsine, RS 598, 97230-000, Brazil. This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see <u>creativecommons.org</u>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Full text (1,503.6 kB) | Supplementary file (290.4 kB)