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THE STAPES OF *PROPALAEHOPLOPHORUS* AMEGHINO (XENARTHRA, CINGULATA, GLYPTODONTIDAE)

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According to our revision, the only middle ear bone described for glyptodonts is the stapes of *Glyptodon* Owen, *Panochthus* Burmeister and "*Sclerocalyptus*" Ameghino briefly described and illustrated by Guth C. in 1957. The aim of this study is to describe the stapes of the glyptodont *Propalaehoplophorus* Ameghino (YPM PU 15007), from the early Miocene Santa Cruz Formation of Patagonia (Argentina). We observed the middle ear structures using micro-computed tomography, and subsequent three-dimensional reconstructions, made using Avizo 7.1. The description is based on the right stapes, the only one preserved. The stapes appears anatomically rotated, with the head distally and the plate medially. It is typically bicrurate. The oval head is robust, with a well-developed muscular process, and tapers to form a long, flat neck region. Between neck and footplate, the stapedial crura diverges to surround a sizeable intercrural foramen. Both stapedial crura are constituted by thick bone, thinner than the head and footplate. The anterior crus is slimmer at its middle region than the posterior one, but it seems to be an artifact due to preservation. Both crura are long, almost equally wide all along and inserted near the border of the footplate, delimiting a triangular intercrural foramen. The footplate is oval and relatively thick, thinner posteriorly. *Glyptodon* stapes has an elongated shape, an oval intercrural foramen, and a reduced footplate, meanwhile in *Propalaehoplophorus* are both the stapes and the intracrural foramen triangular in shape, and an evident footplate. *Panochthus* and "*Sclerocalyptus*" present a not-perforated stapedes, with their crura joined along their entire length. Some similarities between stapedes of *Propalaehoplophorus* and extant armadillos includes a similar overall triangular shape with the narrow oval head forming a long and flat distinguishable neck, and the stapedial crura diverging to delimit a sizeable foramen. This preliminary finding provides a basis for future anatomical and functional studies on auditory abilities in the santacrucian glyptodonts, which will allow to establish patterns of hearing evolution across the Cingulata.