



EXCEPTIONALLY PRESERVED SPECIMEN OF *PANOCHTHUS* SP. (DEPARTMENT OF GENERAL GUIDO, BUENOS AIRES) REVEALS UNKNOWN ANATOMIC FEATURES

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In 2021, fieldworks in the General Guido department (Buenos Aires Province) resulted in the extraction of a nearly complete and exceptionally preserved skeleton of *Panochthus* sp. The specimen is assigned to the genus *Panochthus* by the following diagnostic features: nasal area strongly inclined anteroventrally, palatal and rostral planes forming a 45° angle; external nasal openings anteroventrally oriented; molariforms 2 to 8 trilobulated. This specimen (MCHP-001) comes from Chelforó river (36° 55' 47.8" S; 58° 08' 24.9" W) where are exposed outcrops pertaining to the Guerrero Member of the Luján Formation (Lujanian Stage, Upper Pleistocene). During the preparation of the skull, elements of the hyoid apparatus and cartilages of the pharynx were found in articulation. The aim of this work is to redescribe and reinterpret some anatomical features of *Panochthus*. Both sigmoidhyals and the “V” bone are exhibit similar morphology to those previously published. However, we observe that the sigmoidhyals articulate dorsally with the mastoid process of the skull by a spoon-shaped dorsal end. In lateral view, the sigmoidhyals are almost vertical while in posterior view are notably oblique and medially inclined. Both sigmoidhyals articulate by a bottom-shaped ventral end with the “V” bone. In lateral view, this latter is strongly inclined dorsally (forming approximately 70° with the tooth row). Furthermore, a complete thyroid cartilage was found in articulation with the choana. This element is anteroposteriorly long being notably longer than that the previously reported for *Panochthus*. Laterally, this cartilage shows a subtriangular anterior half. This latter shows a flat and crescent-shaped articular facet for the “V” bone. Moreover, on its anterodorsal corner, this cartilage shows a small and laterally projected process for the articulation with the cornual process of the “V” bone. An incomplete cricoid cartilage is observed. This element is arched and is dorsally placed with respect to the thyroid cartilage. All these observations in the hyoid apparatus show a different morphology than that the previously published. For example, the sigmoidhyals are oblique and medially inclined in posterior view (and not vertically). The almost vertical “V” bone is placed more dorsally, reaching the level of the floor of the choana. Furthermore, the flat articular facet of the thyroid cartilage for the “V” bone shows that this latter was placed below the thyroid cartilage and not anteriorly (as previously thought). Given its exceptional preservation MCHP-001 allows us to reinterpret the position of the hyoid apparatus of the genus *Panochthus*.