

## **New interpretation of the cranial anatomy of *Abelisaurus comahuensis* (Theropoda, Abelisauridae) Bonaparte and Novas 1985**

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The skull of *Abelisaurus* was embedded in plaster, making study more difficult. New observations made on the holotype allow recognizing novel aspects. Characteristically, abelisaurids present unfused premaxillae. In the original reconstruction (based on the left premaxilla), these were modeled as fused and lateralized, when they should be located more anterolaterally. The incomplete maxilla of *Abelisaurus* preserves six dental alveoli. Based in the intra-alveolar distances of other abelisaurids, the estimated total length becomes reduced and the bone is positioned more posteriorly, making the last teeth coincide with the beginning of the orbit, as in other neoceratosaurs. The nasals also join this retraction because they are posteriorly incomplete. The nasals in abelisaurids (as in other theropods) show a prominent ventral keel marking the contact with its pair. In *Abelisaurus* the keel is present only in the anteriormost part, and actually moved to the right, putting in evidence the absence of part of the right nasal. The original reconstruction shows the medial region of the quadrate placed over the basitubera, whereas it should be below it. After verticalization and correction, the skull becomes re-oriented and with a substantial increase of height. This affects the shape of the jugal and its position becomes more similar to that of *Carnotaurus*, at the same time that its incompleteness allows extending the posterior ramus. These modifications result in a new configuration that brings *Abelisaurus* closer to the short and tall skull morphology observed in *Carnotaurus sastrei* Bonaparte et al., 1990 and *Majungatholus atopus* Sues and Taquet, 1979.

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