

## The appendicular skeleton of *Neuquensaurus*, a Late Cretaceous saltosaurine sauropod from Patagonia, Argentina

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*Neuquensaurus*, from the Late Cretaceous of Argentina and one of the first dinosaurs described from Patagonia, is one of the most derived sauropod dinosaurs, and its proportions and size place it among the smallest sauropods ever known. In this context, *Neuquensaurus* is central to understanding late stages of sauropod evolution. This contribution offers a full description of the appendicular skeleton of *Neuquensaurus*. The anatomical analysis reveals that the appendicular skeleton of *Neuquensaurus* exhibits unique characteristics only shared with closely related saltosaurine titanosaurs; for example, the laterally directed preacetabular lobe of the ilium, the prominent fibular lateral tuberosity, and the presence of an intermuscular line on the femoral shaft, which is proposed here as a synapomorphy of Saltosaurinae. *Neuquensaurus* also displays many reversals to primitive character states, such as the presence of a prominent olecranon process of the ulna, a trochanteric shelf, a lesser trochanter and an ischial tuberosity. Additional characters that allow its evaluation in a phylogenetic context are here provided. Among them are the extremely deflected femoral shaft, the elliptical femoral cross-section, and the anterolaterally oriented cnemial crest.

**Key words:** Sauropoda, Saltosaurinae, *Neuquensaurus australis*, *Neuquensaurus robustus*, appendicular anatomy, sauropod evolution, Patagonia, Argentina.

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