



Comments on the taxonomic status of *Neuquensaurus robustus* (Huene) (*Sauropoda*, *Titanosauria*)

A. OTERO¹

Neuquensaurus ('*Titanosaurus*') is one of the best preserved sauropods from the Upper Cretaceous of Patagonia, which currently includes two species: *Neuquensaurus australis* (Lydekker) and *Neuquensaurus robustus* (Huene). '*Titanosaurus*' *robustus* was recognized mainly from a subset of bones previously assigned but not described by Lydekker to '*Titanosaurus*' *australis*. Huene classified the limb bones of '*Titanosaurus*' without comparing the vertebral material of each species and used the name of '*Titanosaurus*' *australis* in an arbitrary way to identify the form possessing slender limb bones and creating for the remainder the species '*T.* *robustus*, without taking into account the fact that the type material of '*T.* *australis* consists of a series of caudal vertebrae. This study agrees with other authors in consider *N. robustus* as nomen dubium till further studies which also include the axial skeleton shed new light on the taxonomic status of the species. The present analysis is focused on the appendicular anatomy of *N. robustus*. Because of its disarticulated condition, the new discoveries on the last years, as well as the similarity with *N. australis*, a re- assessment of all available appendicular material of those species is given here. Several elements originally described as referred to '*T.* *robustus* are here considered as belonging to *N. australis*, such as a sternal plate (MLP-CS 1295), humerus (MLP-CS 1019), and ilium (MLP-Av 2069). Likewise, many elements originally referred to '*T.* *australis* closely resemble the lectotype of '*T.* *robustus*, for example, an ulna (MLP-CS 2004), femur (MCS 9), tibia (MCS 6), and several radii (e.g., MLP-CS 1196). Finally, some elements previously referred to '*T.* *australis* or '*T.* *robustus* seem to pertain to a different species or even genus due to their differences and/or their fragmentary condition. That is the case of some scapulae (e.g., MLP-CS 1296), radii (e.g., MLP-CS 1167), metacarpal II (MLP-CS 1186), metacarpal III (MLP-CS 2003), metacarpal IV (MLP-CS 1187), ilia (e.g., MLP-CS 1056), and pubis (MLP-CS 1263). Such elements are tentatively considered here as cf. *Neuquensaurus*.

MLP-CS: Museo de La Plata, Cinco Saltos Collection, La Plata, Argentina. MLP-Av: Museo de La Plata, Rancho de Ávila Collection, La Plata, Argentina. MCS: Museo Regional Cinco Saltos, Cinco Saltos, Argentina.

¹ Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET). División Paleontología Vertebrados, Museo de La Plata, Pasaje Teruggi s/nº, Paseo del Bosque, (B1900FWA) La Plata, Buenos Aires, Argentina. alexandros.otero@gmail.com