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A new capitosaur from the Middle Triassic of Spain and the relationships within the Capitosauria

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Capitosaurs were the largest and homogeneous group of Triassic temnospondyl amphibians with cosmopolitan distribution. However, their interrelationships are debated. The first capitosaur cranial remains found in the Iberian Peninsula were assigned to *Parotosuchus*; herein, a re–description of this material, together with information on other remains recovered from the same site, enables us to classify them as a new genus: *Calmasuchus acri* gen. et sp. nov. (Amphibia: Temnospondyli) from the early–to–middle Anisian (early Middle Triassic). This capitosaur had a combination of plesiomorphic and non–plesiomorphic characters, such as posterolaterally directed tabular horns, paired anterior palatal vacuities, and unique morphology of the lower jaw. By cladistic analysis, we propose a new phylogeny for the monophyletic capitosaurs. In the analysis, Capitosauria is supported by seven synapomorphies. Wetlugasaurus is the most basal member of the clade. The score of the Russian taxon *Vladlenosaurus alexeyevi* resulted in a clade including *Odenwaldia* and the latter taxa. The Madagascarian *Edingerella* is the sister taxon of *Watsonisuchus*. Finally, *Calmasuchus acri*, the new taxon described here, appears as a more derived form than *Parotosuchus*. The new genus is the sister taxon of the *Cyclotosaurus–Tatrasuchus* and *Eryosuchus–Mastodonsaurus* clades.

Key words: Temnospondyli, Capitosauria, Mastodonsauroidea, phylogeny, computed tomographic scanning, Anisian, Triassic, Spain.

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