

THE RISE OF THE SPINOSAURID DYNASTY IN THE LOWER CRETACEOUS OF THE IBERIAN PENINSULA AND THE DOWNFALL OF CARCHARODONTOSAURIDAE: NEW DATA ON THE MID- TO LARGE-BODIED IBERIAN THEROPOD RECORD

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The theropod fossil record from the Cretaceous of Iberia provides important insights into the composition and evolutionary history of European faunas. Representatives of Allosauroidae, Ceratosauria, Coelurosauria and Megalosauroidae are present. Most of the specimens consist of isolated teeth and fragmentary skeletal remains, which limits their taxonomic assignment, although they are potentially important from both palaeobiogeographic and evolutionary significance. In this work, we revise a distal right femur (MPZ 2014/235) and describe a new proximal right ischium from Ladruñán-3 in the lower Barremian (Mirambel Formation, Teruel, Spain). MPZ 2014/235 was previously attributed to Carcharodontosauridae and later to Megalosauria. However, our reevaluation supports its reassignment to Spinosauridae, specifically to *Camarillasaurus* cf. *cirugedae*. This attribution is based on the following diagnostic features: (1) an anteroposteriorly oriented and rounded medial condyle, (2) a semicircular and strongly anterolaterally oriented lateral condyle projecting posterolaterally as a sharp edge, (3) equally projected distal condyles, and (4) a narrow, proximally extending V-shaped extensor groove, which differ from the condition in *Riojavenatrix*. Additionally, the ischium lacks the anteroposteriorly oriented groove on the acetabular surface present *Vallibonavenatrix*. The identification of *Camarillasaurus* in Ladruñán-3 therefore demonstrates its presence in both the Morella and Galve sub-basins within the Maestrazgo Basin. Additionally, differences observed among *Camarillasaurus*, *Riojavenatrix* and *Vallibonavenatrix* provide further evidence that these are separate genera. The femur from the upper Barremian Morella Formation (MNCN 35074 and 67733) is here assigned to Spinosauridae indet., owing to its anteromedially oriented medial condyle. Furthermore, the renewed revision of the remaining theropod skeletal remains previously assigned to Carcharodontosauridae shows that they lack diagnostic features supporting their referral to this family and are better regarded as Theropoda indet. Current evidence indicates that the Early Cretaceous faunas were dominated by spinosaurids, with other theropods representing accessory components of the ecosystems or being less prone to fossilization.

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