

Poster presentation

## **A spinosaurid cervical vertebra from the Morella Formation (lower Aptian) of Morella, Spain**

J.M. GASULLA<sup>1</sup>, F. ORTEGA<sup>2</sup>, J.L. SANZ<sup>1</sup>, F. ESCASO<sup>1,3</sup> & A. PÉREZ GARCÍA<sup>1,4</sup>

<sup>1</sup> Unidad de Paleontología. Departamento de Biología. Universidad Autónoma de Madrid, 28049 Madrid, Spain. E-mail: jm.gasulla@gmail.com

<sup>2</sup> Grupo de Biología. Facultad de Ciencias. Universidad Nacional de Educación a Distancia, 28040 Madrid, Spain.

<sup>3</sup> Museo de las Ciencias de Castilla-La Mancha. 16001 Cuenca, Spain.

<sup>4</sup> Departamento de Paleontología. Facultad de Ciencias Geológicas. Universidad Complutense de Madrid, 28040 Madrid, Spain.

The Arcillas de Morella Formation (lower Aptian, Northwestern of the Iberian Peninsula) has yielded a rich vertebrate fossil record. Dinosaurs are one of the best-represented groups, in particular remains of the ornithopod *Iguanodon* and sauropod titanosauriforms, probably closely related to *Brachiosaurus*. In addition, ornithopods, such as hypsilophodontids and a probable iguanodontid close to *Mantellisaurus*; a thyreophoran, such as *Polacanthus*; and different representatives of theropods, such as spinosaurids, allosauroids and dromaeosaurids, are represented.

A cervical vertebra from the Mas de la Parreta quarry (Morella) belonging to a large theropod, is assigned to a Spinosauridae Baryonychinae. The vertebra is similar to the eighth cervical one of the Lower Cretaceous spinosaurid *Baryonyx walkeri*. As in *Baryonyx*, the Morella cervical vertebra presents the diapophyses in the anterior half of the neural arch, just above the parapophyses and the pleurocoels, large zygapophyses and epipophyses, low and laterally compressed neurapophyses slightly backwards directed, and lacks a lamina connecting diapophyses and zygapophyses. Nevertheless, the Morella specimen just differs from the *Baryonyx* holotype in the development of the epipophyses, more forwards projected in *Baryonyx*, and more backwards directed in the Morella specimen.

The presence in the Morella Formation of a new close relative to other Baryonychinae, such as the European *Baryonyx* or the African *Suchomimus*, has been previously recognized, mainly, due to the presence of similar teeth. However, these teeth show differences with those of both genera.