

Largest carnivorous dinosaur tooth in Spain described

June 22 2009



Researchers from the Teruel-Dinópolis Joint Palaeontology Foundation have compared an Allosauroidea tooth found in deposits in Riodeva, Teruel, with other similar samples. The palaeontologists have concluded that this is the largest tooth of a carnivorous dinosaur to have been found to date in Spain.

The features and size of the 9.83cm [tooth](#) provide key information needed to identify its former owner. The researchers are in no doubt - it was a large, predatory, carnivorous dinosaur (theropod) belonging to the Allosauroidea clade (one of the branches of the phylogenetic tree), a

group that contains large carnivorous [dinosaurs](#) measuring between six and 15 meters.

"Given the great variations between the teeth of different kinds of allosauroids, it would be prudent for us to assign this fossil to an indeterminate Allosauroidea", Luis Alcalá, one of the researchers involved in the study to be published in the upcoming issue of *Estudios Geológicos* and managing director of the Teruel-Dinópolis Joint Palaeontology Foundation, tells SINC.

The tooth, found by local residents in Riodeva, Teruel, in the Villar del Arzobispo Formation, has been compared with other samples from the Allosauroidea group from the Iberian Peninsula - in particular with a large tooth from Portugal (measuring 12.7cm) and another belonging to an Allosauroidea indet in Spain, until now described as the largest in [Spain](#) at 8.27cm.

Working towards a complete faunal record of Riodeva

The palaeontologists say that "the presence of a large Allosauroidea is a great addition to the faunal record of the dinosaurs described in the Villar del Arzobispo Formation in Riodeva".

Plant-eating dinosaur groups (phytophages) discovered in the deposit to date have been identified as sauropods, stegosaurids and basal ornithopods (from tooth remains and a complete rear leg). "Now the carnivorous dinosaurs are also represented, at least by two medium-sized theropods and a large predator belonging to the Allosauroidea clade", adds Alcalá.

Carnivorous dinosaurs grew new teeth over their lifetimes, which

increase the likelihood of finding them. In this case, the condition of the crown of the tooth found (without any reabsorption surfaces) indicates that it was not a discarded tooth. The palaeontologists hope to discover the remains of this large predator, which could have attacked *Turiasaurus riodevensis*, the 'European giant'.

More information: R. Royo-Torres, A. Cobos, L. Alcalá. "Diente de un gran dinosaurio terópodo (Allosauroidea) de la Formación Villar del Arzobispo (Titónico-Berriasiense) de Riodeva (España)" *Estudios Geológicos* 65(1) enero-junio 2009.

Source: FECYT - Spanish Foundation for Science and Technology

Citation: Largest carnivorous dinosaur tooth in Spain described (2009, June 22) retrieved 25 April 2024 from <https://phys.org/news/2009-06-largest-carnivorous-dinosaur-tooth-spain.html>

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