

Four dinosaur egg species identified in Lleida

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This is an artist's impression of the egg laying of an Ampelosaurus. Credit: J.A. Penas - SINC.

A study headed by the Miquel Crusafont Catalan Palaeontology Institute has for the first time documented detailed records of dinosaur egg fossils in the Coll de Nargó archaeological site in Lleida, Spain. Up until now, only one type of dinosaur egg had been documented in the region.

The archaeological site in Coll de Nargó containing [dinosaur eggs](#) lies some 8 kilometres to the west of the town that bears the same name in the province of Lleida. This region is home to different types of [geological formations](#), including the Areniscas de Arén Formation and the Tremp Formation, which have provided a rich and varied yield of [dinosaur fossils](#) through the entire Pyrenees region.

"Eggshells, eggs and nests were found in abundance and they all belong to [dinosaurs](#), sauropods in particular. Up until now, only one type of dinosaur egg had been documented in the region: *Megaloolithus siruguei*. After analysing more than 25 stratus throughout the Tremp Formation, a minimum of four different additional types were identified: *Cairanoolithus roussetensis*, *Megaloolithus aureliensis*, *Megaloolithus siruguei* and *Megaloolithus baghensis*", as explained to SINC by Albert García Sellés from the Miquel Crusafont Catalan [Palaeontology](#) Institute and lead author of the study.

One of the main problems faced by palaeontologists when studying [fossil](#) remains is determining the age of the sediments that contain them. There are fossils known as "guide fossils" whose characteristics allow for the age of rocks to be deduced. However, these fossils are frequent in [marine sediments](#) but more scarce and difficult to find in land sediments.

"It has come to light that the different types of eggs (oospecies) are located at very specific time intervals. This allows us to create biochronological scales with a precise dating capacity. In short, thanks to the collection of oospecies found in Coll de Nargó we have been able to determine the age of the site at between 71 and 67 million years," ensures the expert.

The paleontological sites in the south of Europe containing dinosaur remains have a high scientific value since they allow us to understand

and thus reconstruct the ecosystems at the end of the Mesozoic Era.

The latest scientific investigations show that the dinosaur fauna of the European Continent living for a short time before the great extinction some 66 million years ago can be found exactly on the southern side of the Pyrenees.

A connection between French and Spanish dinosaurs

The discovery of *Cairanoolithus* fossils in this area is an important finding. Given that this type of eggs is only known in the south of France, they are the first of their kind found in the Iberian Peninsula.

According to García Sellés, this discovery constitutes a new proof of the connection between dinosaur fauna in France and in the Iberian Peninsula some 70 million years ago.

Furthermore, finding dinosaur eggs and nests in more than 25 stratigraphic levels provides clear evidence that these sauropods used the Coll de Nargó region as a nesting area for millions of years.

"We had never found so many nests in the one area before. In addition, the presence of various oospecies at the same level suggests that different types of dinosaurs shared the same nesting area," concludes the scientist.

More information: Albert G. Sellés, Ana María Bravo, Xavier Delclòs, Ferran Colombo, Xavier Martí c, Jaume Ortega-Blanco, Carme Parellada c, Àngel Galobart. "Dinosaur eggs in the Upper Cretaceous of the Coll de Nargó area, Lleida Province, south-central Pyrenees, Spain: Oodiversity, biostratigraphy and their implications", *Cretaceous Research* 40: 10 -20, 2013.

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