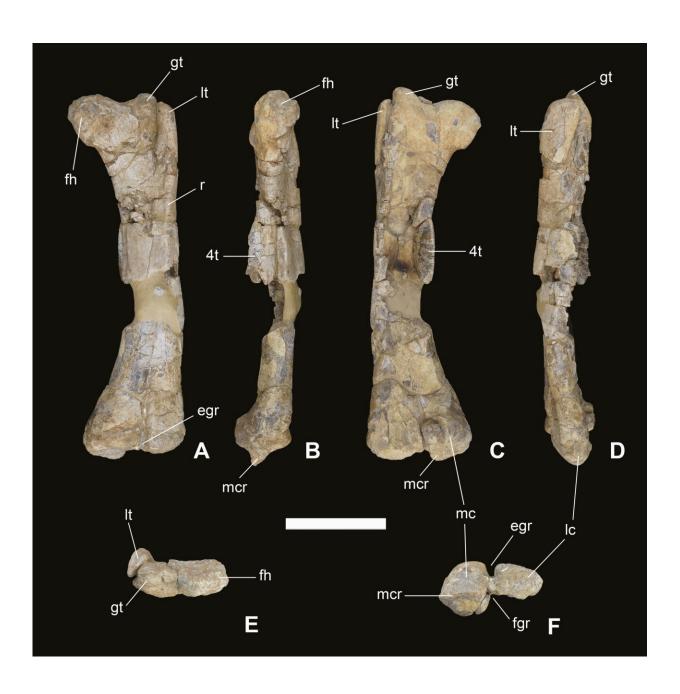


Discovery of new ornithopod solves mystery of unidentified large dinosaur tracks

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Femur [thigh bone] of Oblitosaurus bunnueli [scale bar = 20 cm]. Credit: Sánchez-Fenollosa et al, 2023

Researchers at the Fundación Conjunto Paleontológico de Teruel-Dinópolis/ Museo Aragonés de Paleontología, Spain, have released the description of a new upper Jurassic dinosaur based on fossil remains found in Spain.

In their paper, "The largest ornithopod (Dinosauria: Ornithischia) from the Upper Jurassic of Europe sheds light on the evolutionary history of basal ankylopollexians," published in *Zoological Journal of the Linnean Society*, the researchers detail the identification of a giant ornithopod Ankylopollexia they named Oblitosaurus bunnueli.

Ankylopollexia is a diverse group of ornithopod dinosaurs from the Late Jurassic to the Late Cretaceous (161.5 million to 66 million years ago) found in North America, Europe, Africa, and Asia. The relationships between these diverse finds and the shared origins of the species are poorly understood.

The new ornithopod genus and species, named Oblitosaurus bunnueli, has been described based on fossil remains from Spain's Upper Jurassic (161.5 million to 145 million years ago). The age of the find makes it a likely early form of Ankylopollexia.

Based on several comparable criteria, Oblitosaurus bunnueli likely measured around 6–7 m in length, making it the largest ornithopod described in the Upper Jurassic of Europe and one of the largest worldwide.

The size estimates may solve a mystery around footprints found In the



same South Iberian basin of a large ornithopod with tracks up to 30 cm in size. Ornithopod tracks between 25 and 33 cm have been uncovered at other Upper Jurassic locations in Spain and Portugal but would require a larger ornithopod than previously described in the regions. Estimated footprints produced by Oblitosaurus bunnueli are between 29 and 31 cm long, making it an excellent candidate to solve the mystery of several sites.

Extremely large tracks assigned to ornithopods have been found in the Upper Jurassic of Portugal at around 70 cm and in Yemen at over 50 cm, suggesting some enormous ornithopods have yet to be discovered.

The geological setting of the fossil discovery is in the Villar del Arzobispo Formation, which is part of the Upper Jurassic of the South-Iberian Basin. Large herbivorous and <u>carnivorous dinosaurs</u>, including giant sauropods, stegosaurus, and theropods, dominated the region's terrestrial ecosystems during the Late Jurassic. The Barrihonda-El Humero <u>fossil</u> site within the Villar del Arzobispo Formation, where the current discovery was made, also yielded remains of sauropods, stegosaurs, theropods, fishes, and turtles.

The Oblitosaurus bunnueli fossils include a tooth, a digit, and an almost complete left hindlimb. The tooth and digit were collected in 2005, while the semi-articulated hindlimb was found 12 m away and excavated in 2009. These fossils are considered to belong to the same individual because of the relative proximity of the remains at the site, and the size and features of the pieces are consistent. The studied fossils currently reside in the Museo Aragonés de Paleontología in Teruel, Spain.

Fun fact

The new dinosaur genus, Oblitosaurus bunnueli, was named after the famous Spanish film director Luis Buñuel, known for his surreal and



groundbreaking films. The name reflects the uniqueness and importance of this discovery to the province of Teruel, where the filmmaker was born and where the fossils were found and currently reside.

Oblitosaurus means "forgotten lizard," an apt name for any new dinosaur discovery and an homage to one of Buñuel's best-known films, "Los Olvidados," Spanish for "The Forgotten Ones." American film connoisseurs may be more familiar with the English title "The Young and the Damned," which would also make for an excellent dinosaur name, though maybe for one that lived closer to the K-T extinction event.

More information: Sergio Sánchez-Fenollosa et al, The largest ornithopod (Dinosauria: Ornithischia) from the Upper Jurassic of Europe sheds light on the evolutionary history of basal ankylopollexians, *Zoological Journal of the Linnean Society* (2023). DOI: 10.1093/zoolinnean/zlad076

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