

New species of 'sail-backed' dinosaur found in Spain

December 16 2015



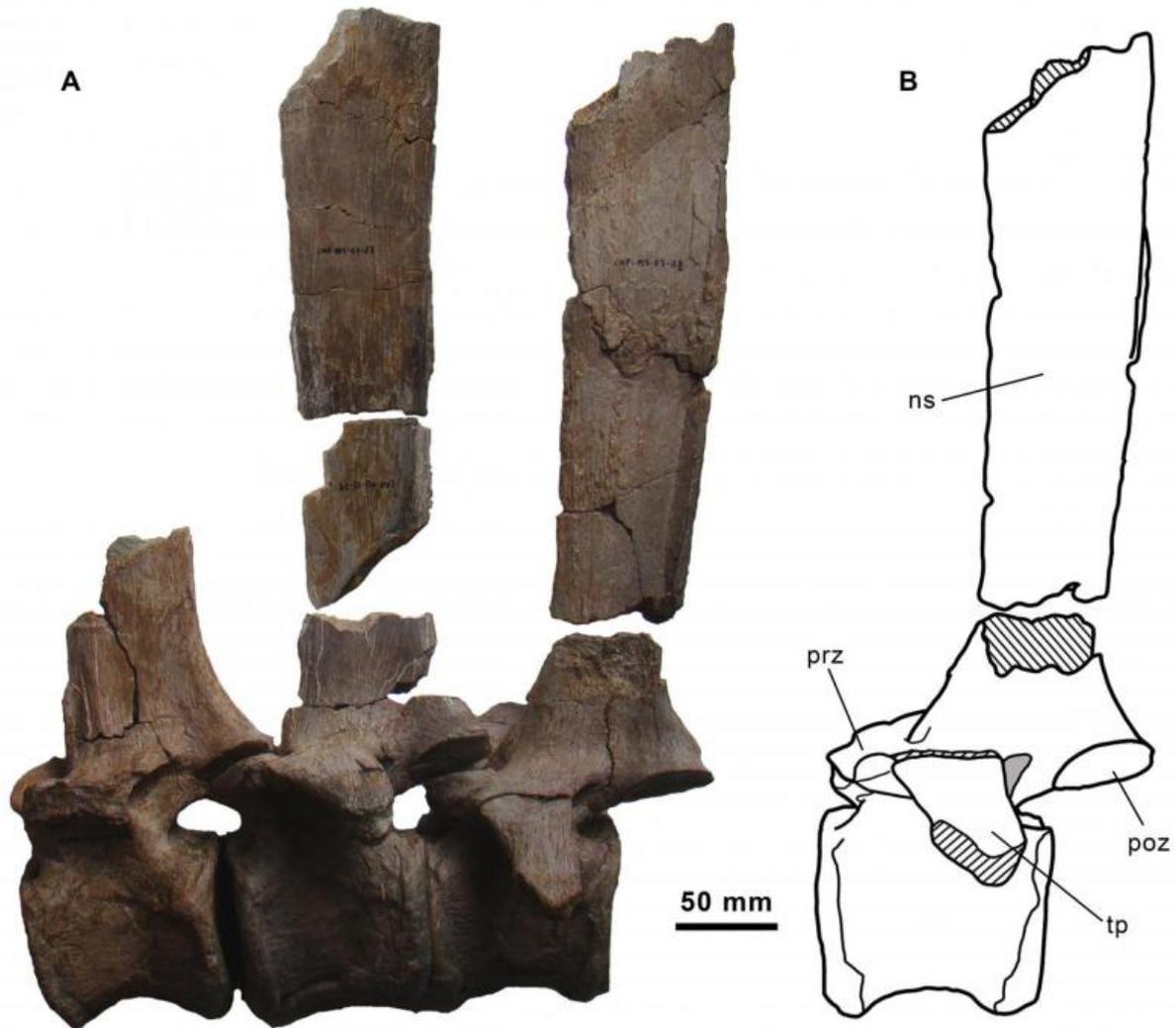
Picture of a life reconstruction of *Morelladon beltrani*. Credit: Carlos de Miguel Chaves

Scientists describe a 'sail-backed' dinosaur species named *Morelladon beltrani*, which inhabited the Iberian landmass ~125 million years ago, according to a study published Dec. 16, 2015 in the open-access journal *PLOS ONE* by José Miguel Gasulla from Grupo Biología Evolutiva (UNED-UAM) and colleagues.

The specimen the authors of this study describe is a partial skeleton mainly composed of dorsal and sacral vertebrae and pelvic bones. *Morelladon* is a medium-sized styracosternan ornithopod of around 6 meters long and 2.5 meters high, similar in body length and proportions to its relative *Mantellisaurus atherfieldensis*. The most conspicuous feature of this new, relatively gracile ornithopod is the presence of tall neural spines on dorsal vertebrae, which the authors suggest was possibly a 'sail' used for thermoregulation, or as a storage place for fat to be used during periods of low food supply.

The discovery of *Morelladon beltrani* in the same area and time period with its relatives *Iguanodon bernissartensis* and *Mantellisaurus atherfieldensis* may indicate a particularly diverse medium-large bodied styracosternan assemblage in the eastern Iberian landmass during the late Barremian, ~125 million years ago.

Co-author Dr. Escaso added, "We knew the dinosaur fauna from Morella was similar to those of other contemporary European sites. However, this discovery shows an interesting rise of the iguanodontoid diversity in southern Europe ~125 million years ago."



Photograph of dorsal vertebrae series of the holotype specimen of *Morelladon beltrani* (CMP-MS-03). CMP-MS-03-06, -07 (including CMP-MS-03-17 and -29) and -05 (including CMP-MS-03-08) in left lateral (A) view. Interpretive drawing of CMP-MS-03-05 (including CMP-MS-03-08 neural spine) in left lateral (B) view. Abbreviations: ns, neural spine; poz, postzygapophysis; prz, prezygapophysis; rec, vertical recess; tp, transverse process. Credit: Gasulla et al.

More information: José Miguel Gasulla et al. A New Sail-Backed

Styracosternan (Dinosauria: Ornithopoda) from the Early Cretaceous of Morella, Spain, *PLOS ONE* (2015). [DOI: 10.1371/journal.pone.0144167](https://doi.org/10.1371/journal.pone.0144167)

Provided by Public Library of Science

Citation: New species of 'sail-backed' dinosaur found in Spain (2015, December 16) retrieved 21 September 2024 from <https://phys.org/news/2015-12-species-sail-backed-dinosaur-spain.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.