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Oldest fossils discovered in Cordillera Betica mountain range

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A team of Spanish researchers has discovered fossils of Ordovician conodonts dating to between 446 and 444 million years ago for the first time in the western Mediterranean.

The discovery of these very primitive marine vertebrates has helped scientists to reconstruct the palaeogeography of the Cordillera Betica mountain range.

Their study shows that the mountain system in the south of the Iberian Peninsula was located alongside the Alps at that time.

In 2006, a group of Andalusian geologists found the oldest fossils in the Cordillera Betica, dating from the late Ordovician period between 446 and 444 million years ago, in the MalÂ guide Complex in Ardales (Malaga). This was also the first solid evidence of Ordovician rocks in the Betica range.

The researchers analysed the characteristics of the conodont remains they found, the presence of certain species, and the absence of others, and compared these with others of a similar age found in the macizo iberico (essentially the western half of the Iberian Peninsula) and other ranges in the area.

The results of the study show that, during the late Ordovician period, the MalÂ guide Complex was not to be found with the rest of the Iberian Peninsula along the edge of the palaeo-continent of Gondwana, "but was rather at a much lower latitude much closer to the Alps, with its Ordovician conodont fauna showing much closer similarities to the fauna of this area," said Rosario RodrÂ¡guez-CaÂ¤ero, lead author of the study at the Department of Stratigraphy and Palaeontology of the University of Granada.

The conodonts were small, eel-shaped animals without any vertebral column, which measured a few tenths of a millimetre in length, and inhabited the seas during the Palaeozoic era and became extinct at the end of the Triassic (around 205 million years ago).

The findings have been published in the latest issue of the journal Terra Nova. (ANI)