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UPDATE ON THE CENOMANIAN VERTEBRATES FROM ALGORA (GUADALAJARA, SPAIN): NEW DATA ON THE FAUNAL TRANSITION BETWEEN THE EARLY AND THE LATE CRETACEOUS OF EUROPE

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The largest concentration of vertebrate macroremains for the Cenomanian of south-western Europe has been recognized at the palaeontological area of Algora (Guadalajara Province, central Spain). The study of the taxa identified there provided new information about the palaeobiogeography and temporal distributions of some lineages, and increased knowledge about the poorly-known transition between the Lower and the Upper Cretaceous faunas in Europe. The presence of eight taxa was confirmed there: the lepisosteoid fish Obaichthys africanus; the helochelydrid turtle aff. Plastremys lata; the bothremydid turtle Algorachelus peregrina; an indeterminate elasmosaurid plesiosaur; a non-eusuchian neosuchian and a eusuchian crocodyliform; an indeterminate lithostrotian titanosaur; and an indeterminate theropod probably belonging to Abelisauridae. Recent fieldwork campaigns, performed in 2019 and 2021, provided more than 1,200 new vertebrate remains, including those of clades poorly represented so far, as well as others hitherto unknown at this site. Therefore, the faunal list can be remarkably increased. In this sense, several taxa of Osteichthyes have been found, and chondrichthyan remains are also recognized there for the first time. New remains of crocodyliforms, theropods and sauropods allow to analyze, in more detail, the systematic attribution of the representatives of these lineages present in Algora. Not only new relevant specimens of helochelydrids and bothremydids stand out among the numerous finds of turtles (which allow a better understanding of the anatomy of the represented species), but especially the discovery of the partial skeleton of a relatively large cryptodiran sea turtle (including, among other elements, the carapace, with more than 1 meter in length, and the skull). In addition, other lineages hitherto unrecognized at this fossiliferous locality, such as a squamate with aquatic affinities, are identified. The main novelties in knowledge about the Cenomanian vertebrate fauna of Algora are presented here, and the palaeobiogeographical implications of several of the new finds are discussed.

Keywords: Iberian record, Vertebrate palaeontology, Reptiles, Faunal transition, Upper Cretaceous.

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