

## A HIGH-DIVERSITY ASSEMBLAGE OF HERBIVOROUS DINOSAURS FROM A BARREMIAN–APTIAN PALEOUPLAND LOCALITY OF NORTHWESTERN GERMANY

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Upland environments are severely underrepresented in the fossil record, which causes substantial gaps in our knowledge of their paleodiversity. Barremian–Aptian upland paleokarst fissure and cave deposits exposed at Balve-Beckum in northwestern Germany yield a large amount of vertebrate remains. Disarticulated and fragmentary bones and teeth represent a diverse vertebrate fauna that includes selachians, osteichthyans, lissamphibians, mammals, squamates, turtles, crocodyliforms, and pterosaurs, as well as ornithischian, theropod, and sauropodomorph dinosaurs. Sedimentological and taphonomical information indicate a complex, probably multiphase history of enrichment, sorting, and deposition of the material within a cave system that was formed in Paleozoic carbonates. Abundant ornithomorphs and rare sauropods are represented by larger disarticulated bones and bone fragments, as well as by several isolated teeth. The current sample includes at least two morphotypes of iguanodontian teeth corresponding to different positions within the tooth row or, potentially, several taxa. Aside from rare fragments of larger individuals, sauropod remains include small tooth crowns, probably from hatchling-sized individuals, representing two morphotypes that indicate two different taxa. There are also small, isolated tooth crowns displaying ornithischian features. A minimum of five morphotypes are recognized, probably representing at least three different taxa. The morphotypes differ from other Early Cretaceous ornithischians known from well-sampled localities such as the Wessex and Weald basins. This indicates that a high diversity of herbivorous dinosaurs was present at Balve, which adds to the previously known faunal community at the site. Current research aims to elucidate the relationships, paleoecology, and taphonomy of this fauna.

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