A POSSIBLE ANHANGUERAN PTEROSAUR MANDIBLE FROM THE LOWER CRETACEOUS OF GERMANY

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Key words: Pterosauria, Anhangueria, Cretaceous, Valanginian Presentation type: poster

Cretaceous pterosaur fossils are rare in Germany. The specimens documented to date are limited to only a few fragmentary body fossils and footprint traces from different Lower Cretaceous strata. Here we add to this sparse, but palaeobiogeographically significant record with the description of an incomplete mandible from marine sediments of the lower Valanginian Stadthagen Formation of Sachsenhagen in northern Germany. The remains are represented by the posterior section of a gracile symphyseal rostrum with a delicate midline ridge along its ventral edge. A pronounced lateral longitudinal groove also extends below the alveolar rim. Broken tooth crowns are preserved in the mesiodistally elongate alveoli, which are widely spaced (increasingly so posteriorly) and labially inclined without raised rims. Although precise generic affinities are uncertain, the shape and arrangement of the alveoli are reminiscent of Camposipterus nasutus Seeley 1869, from the Albian of England (which was defined on the basis of an incomplete cranial rostrum), as well as mandibles of the putative anhangueran taxon Cearadactylus atrox Leonardi & Borgomanero 1985, together with the unequivocal anhanguerids Anhanguera piscator Kellner & Tomida 2000, Tropeognathus mesembrinus Wellnhofer 1987, and Ludodactylus sibbicki Frey et al. 2003, (all of which additionally share the presence of a symphyseal ridge). We therefore conclude that the Stadthagen Formation pterosaur potentially constitutes one of the stratigraphically earliest occurrences of Anhangueria, and is at present the only known exemplar of this recovered from Germany.



17th Conference of the EAVP - 2019 - Brussels

July 2 • 3 • 4 • 5 • 6 - Royal Belgian Institute of Natural Sciences

Program and abstracts XVII Conference of the EAVP – Brussels, Belgium 2 - 6 July 2019

