ACTA PALAEONTOLOGICA POLONICA

Earliest occurrence of glyptosaurid lizards from Europe

Georgios L. Georgalis and Bastien Mennecart
Acta Palaeontologica Polonica 71 (3), 2026: 509-518 doi:10.4202/app.01331.2026

Glyptosauridae represents a bizarre group of lizards that are heavily armored, covered across their body with distinctive osteoderms. Glyptosaurids are iconic members of Eocene herpetofaunas from the Northern Hemisphere, including Europe, where they eventually became extinct in the latter continent at the "Grande Coupure" extinction event at the Eocene/Oligocene boundary. As their oldest European fossils have so far been documented in the earliest Eocene, it has been commonly accepted that glyptosaurids dispersed to that continent from North America (where they are already known from Late Cretaceous and Paleocene localities), somewhen after the Paleocene–Eocene Thermal Maximum (PETM) at around 56 Ma, following a similar dispersal pattern of several other terrestrial vertebrates. We here describe an isolated osteoderm from the upper Paleocene (MP 6) of Cernay in the Paris Basin, France, which can be identified with certainty as a glyptosaurid. A detailed overview of all glyptosaurid occurrences from Europe is also provided. Even if scarce and limited, the new material from Cernay provides definite evidence that glyptosaurids arrived in Europe earlier than previously thought, apparently being one of the so called "precursor" dispersers that managed to arrive in Europe before the PETM.

Key words: Squamata, Glyptosauridae, biogeography, Paleocene, Paris Basin.

Georgios L. Georgalis [georgalis@isez.pan.krakow.pl; ORCID: https://orcid.org/0000-0001-7759-6146], Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, ul. Sławkowska 17, 31-016 Kraków, Poland. Bastien Mennecart [bastien.mennecart@orleans-metropole.fr ; ORCID: https://orcid.org/0000-0002-9669-2907], Muséum d'Orléans pour la Biodiversité et l'environnement, 6 route Marcel Proust, 45000 Orléans, France and Institut Polytechnique UniLaSalle Beauvais, Département Géosciences, Unité Bassins- Réservoirs-Ressources (B2R (GeNumEr) - U2R 7511), UniLaSalle-Université de Picardie Jules Verne, 19 rue Pierre Waguet - boîte postale 30313, F-60026 Beauvais cedex, France.

This is an open-access article distributed under the terms of the Creative Commons Attribution License (for details please see creativecommons.org), which permits unrestricted use,

distribution, and reproduction in any medium, provided the original author and source are credited.

Full text (4,018.3 kB)