

Tetrapod footprints from the Gailtal Alps (Early Permian, Carinthia, Austria)

LINDENBAUER J.¹, VOIGT S.², KAIN P.³ & KRAWANJA-ORTNER G.⁴

¹Department of Palaeontology, University of Vienna, Austria; E-mail: ju-li@gmx.at

²Umweltmuseum GEOSKOP, Burg Lichtenberg (Pfalz), Germany; E-mail: csebastian.voigt@gmail.com

³Institute of Geology and Palaeontology, Westfälische Wilhelms University of Münster, Germany; E-mail: piakain@gmx.de

⁴Geopark Karnische Alpen (Dellach im Gailtal), Austria; E-mail: gerlinde.ortner@geopark-karnische-alpen.at

In early summer 2017, a first systematic excavation on Paleozoic tetrapod footprints in Austria was organized by the Geopark Carnic Alps in cooperation with the Umweltmuseum GEOSKOP/Burg Lichtenberg (Pfalz), Germany. The oldest tetrapod footprints of Austria come from Permian red-beds of the Laas Formation in the Gailtal Alps north of Kötschach-Mauthen, Carinthia, and have long been known by a single slab with tracks of cf. *Ichniotherium* Pohlig, 1892 (NIEDERMAYR & SCHERIAU-NIEDERMAYR, 1980). A couple of years ago, systematic ichnofossil exploration in the study area resulted in the discovery of a more productive site close to the cf. *Ichniotherium* spot (VOIGT & MARCHETTI, 2014). Excavated in 2017, this new site yielded several hundred isolated tracks, imprint couples and short trackways of five different tetrapod track morphotypes: *Amphisauropus* Haubold, 1970, *Batrachichnus* Woodworth, 1900, *Dromopus* Marsh, 1894, *Tambachichnium* Müller, 1954 and *Varanopus* Moodie, 1929. The tetrapod footprints are associated with fossil desiccation cracks, ripple marks, raindrop impressions, microbially induced sedimentary structures, root traces, various arthropod traces and conchostracans as the only recorded body-fossil remains. According to these finds, the tetrapod footprints were formed in a vegetated floodplain environment that has once provided favourable living conditions for amphibians (*Batrachichnus*), reptiliomorph amphibians (*Amphisauropus*, cf. *Ichniotherium*) as well as reptiles (*Dromopus*, *Tambachichnium*, *Varanopus*). The tetrapod footprint assemblage is in accordance with the *Dromopus* biochron of VOIGT & LUCAS (2018) and strongly suggests an early Permian age for the Laas Formation.

References

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