

# On the occurrence of *Ichniotherium* from the Lodève Basin (Southern France): reappraisal of '*Cyclopus aequalis*' HEYLER & LESSERTISSEUR 1963

EUDALD MUJAL<sup>1,2</sup>, LORENZO MARCHETTI<sup>3\*</sup>

*1 Staatliches Museum für Naturkunde Stuttgart, Rosenstein 1, 70191 Stuttgart, Germany*

*2 Institut Català de Paleontologia M. Crusafont, ICTA-ICP building, 08193 Cerdanyola del Vallès, Spain*

*3 Urweltmuseum Geoskop, Burgstraße 19, 66871 Thallichtenberg, Germany*

\*presenting author, lorenzo.marchetti85@gmail.com

## Abstract:

The early Permian continental succession from the Lodève Basin (Southern France) yields a very rich tetrapod ichnological record. However, the ichnotaxonomy of some morphotypes is still unclear. This is the case of *Cyclopus aequalis* HEYLER & LESSERTISSEUR (1963), defined on the basis of ~30 large footprints, currently preserved on a plaster cast of the original surface (MNHN-LOD 83), coming from the Autunian Lunas locality (Fig. 1). We re-describe these tracks by using up-to-date data and techniques (e.g. photogrammetry). Manus tracks (120-130 mm long, 150-160 mm wide) are semiplantigrade to plantigrade, whereas pes tracks (150-170 mm long, up to ~160 mm wide) are plantigrade. Both manus and pes tracks are pentadactyl and ectaxonic (digit IV impression is the longest). Digit impressions are relatively wide and short, slightly bent inwards and deeper in their rounded tips. In manus tracks, digit III impression is the deepest. In pes tracks, impressions of digit I and II are the deepest. In pes tracks, impression of digit V is about as long as III. Two broad trackways are arranged in alternated manus-pes sets (stride: 500 to 550 mm; pace: 400 to 460 mm), with pes tracks behind and in line with manus tracks. Manus tracks are rotated inwards, whereas pes tracks are parallel to the midline. Although this material is not well-preserved (preservation grade 2.0 or lower), the new analysis permits a confident assignment to *Ichniotherium* (the first not dubious from Lodève localities) confirming the hypotheses of HAUBOLD (1971) and GAND (1988). These footprints suggest the presence of large diadectomorph reptiliomorphs in Southern France, and increase the ichnofaunal diversity of Central Pangaea.

**Keywords:** ichnotaxonomy, *Ichniotherium*, diadectomorph footprints, Early Permian, Lodève

## References

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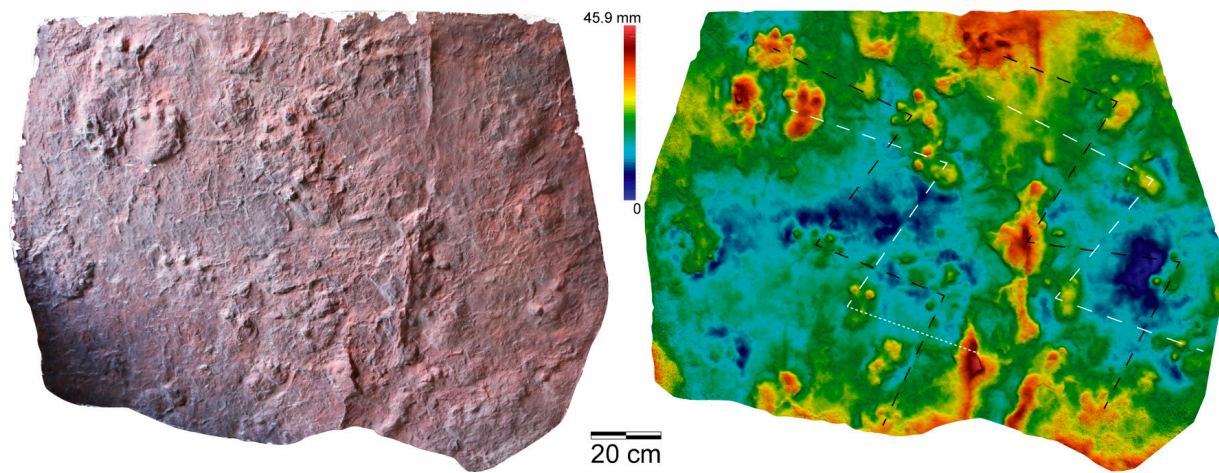


Fig. 1. Photo of the plaster cast surface and false colour map from 3D photogrammetric model of MNHN-LOD 83. Dashed lines indicate the manus and pes paces of trackways (in black and white, respectively).