

Daniela SCHWARZ-WINGS, Oliver WINGS & Franziska SATTLER (Editors)

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Oral presentation

Narrow- and wide-gauge sauropod trackways with similar track morphology and trackway configuration from the Late Jurassic of NW Switzerland: *Brontopodus* and/or *Parabrontopodus*?

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Sauropod trackways from the Late Jurassic of NW Switzerland vary between narrow-gauge and very wide-gauge when the pes trackway ratio of Romano et al. (2007) and the ratio introduced by Marty (2008) between the width of the pes angulation pattern and the corresponding pes length (i.e., [WAP/PL]-ratio) are applied. So far, studied trackways include several narrow-gauge and one very wide-gauge trackways from a single tracklevel and medium-gauge to very wide-gauge trackways from another slightly older tracklevel. Marty et al. (2003) assigned the narrow-gauge type to the ichnogenus *Parabrontopodus* based on typical trackway characteristics (i.e., pronounced narrow-gauge, strong heteropody, outwardly rotated manus), later on Marty (2008) tentatively assigned the medium-gauge to very wide-gauge trackways to the ichnogenus *Brontopodus* because of their clearly wider gauge. However, the pes and manus tracks of all studied trackways, even though most of them are not very well preserved, have a very similar morphology: pes tracks longer than wide, oval in shape, and occasionally exhibiting digit impressions; manus tracks (if undeformed by the subsequent pes) wider than long, semicircular or slightly horseshoe-shaped, and without evidence for a claw impression on digit I. Apart from the marked difference in gauge, they further exhibit a similar general trackway configuration: strong heteropody, pes and manus rotated outwards, manus showing a higher outward rotation than pes, and centres of manus tracks being placed farther away from the trackway midline than those of the pes tracks.

Therefore, the assignation of the studied trackways to the two distinct sauropod trackway types narrow-gauge (e.g., *Parabrontopodus*, *Breviparopus*) and wide-gauge (e.g., *Brontopodus*), based on differences in gauge alone, is problematic. We assume that the gauge of the studied trackways is not only related to the variable posture of different taxa (basal and more derived sauropods), but it may also have been influenced by other parameters such as substrate consistency, behaviour, speed or ontogenic stage. We plan to analyze all (currently 177) sauropod trackways including well-preserved tracks with anatomical details (i.e., digit and claw impressions) of NW Switzerland in a consistent way, to make preservational and sedimentological analyses, and to compare them with other known sauropod ichnotaxa, in order to clarify their ichnotaxonomical assignation.

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