

# The Vienna specimen of *Plateosaurus* – new implications for skeletal morphology and fossil behaviour

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The Triassic "prosauropod" *Plateosaurus* Meyer, 1837 is one of the most abundant dinosaurs in central European localities, especially in Germany, Switzerland, and France. The large number of these findings is of high importance because it corresponds to a nearly occurrence of dinosaurs in the European area. In 2019 two partial skeletons excavated in Frick (Switzerland) were given on permanent loan to the Natural History Museum of Vienna. Through 3D scanning, printings of missing bones, and combining remains from both individuals, a complete specimen was casted, the so-called Vienna specimen of *Plateosaurus*. A detailed analysis of skeletal morphology was conducted on the available bones, especially the pelvis and tail. This firstly opens the possibility to distinguish between species and, secondly, creates the opportunity to achieve a better life reconstruction of *Plateosaurus*. Based on morphological, taxonomical and paleoethological approaches, we propose that there was at least two different *Plateosaurus* species in Frick, and that tail lashing could lead to lethal wounds. These results bring novel insights into this evolutionary important Late Triassic prosauropod species, laying further groundwork for multidisciplinary research.