A NEW LATE TOARCIAN (EARLY JURASSIC) ICHTHYOSAUR FROM SCHANDELAH (LOWER SAXONY) IN 3D-PRESERVATION

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Ichthyosaurs are some of the most iconic extinct marine vertebrates, representing an important faunal element in marine ecosystems from the Early Triassic to the beginning of the Late Cretaceous. Early Jurassic ichthyosaurs are generally well known thanks to a series of Lagerstätten deposits in Europe, notably the early Toarcian Posidonienschiefer. However, the diversity and structuration of ichthyosaur assemblages during the late Toarcian is poorly known. Herein, we present a new 3D-preserved ichthyosaur skull from the late Toarcian of the Posidonienschiefer Formation at the Geopunkt Jurameer Schandelah, Lower Saxony, Germany. The locality is situated near Braunschweig and appears characteristic for 3D-preservation in contrast to the classical 2D-preservation of Swabian ichthyosaurs. The specimen is referable to a new species within the genus *Wahlisaurus* and is notably characterised by a small adult size and a distinct overbite. This specimen shows a series of leptonectid traits, such as small and slender conical teeth, which lack enamel ornamentation, a slender snout, a quadratojugal placed posterolaterally, a small supratemporal fenestra, and a large orbit. A high-resolution CT-scan from the University Hospital Münster uncovered additional skull elements hidden by sediment. This new species represents one of only a few small-bodied post-Triassic ichthyosaurs. *Wahlisaurus* sp. nov. is together with other specimens from Schandelah and the adjacent excavation at Hondelage, one of the northernmost ichthyosaurs from Germany. In terms of taphonomy, most of the disarticulation within the dorsolaterally exposed skull can be attributed to diagenetic compression. However, the dislocation of both premaxillae might have been caused by an anterior crash into the substrate, entombing the skull while leaving the postcranium exposed, explaining the lack of the latter.