

## **Trace fossils and bioturbation in the lower part of the Šárka Formation at Praha – Červený vrch Hill (Ordovician, Barrandian area, Czech Republic)**

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**Abstract.** Sediments of the Šárka Formation are exposed at the Červený vrch Hill in Prague. The lower part of the outcrop shows biogenic structures belonging almost exclusively to the ichnogenus *Pilichnus*, with the Ichnofabric Index (i.i.) of 1–2. In the upper part, this index reaches the value of 3–5 in thin intervals; however, the “background” is poorly reworked by infauna (i.i. = 1–2). Most of the distinctive traces (*Planolites*, *Palaeophycus*, *Nereites*) come from an interval rich in body fossils of graptolites and phyllocarids. One horizon, containing siliceous nodules, showed relatively frequent, well-preserved ichnofabric features in the nodules or on their surfaces. The ichnogenera *Chondrites*, *Pilichnus*, and *Skolithos* were recognized here. A taphonomic “filter” apparently precluded preservation of shallow-tier trace fossils in the strongly bioturbated intervals, therefore, the recognized traces cannot be considered to represent the whole spectrum of benthic activity on/in the sediment. The overall character of the ichnoassemblage indicates ecologic stress, probably a low oxygen level, and only short-time fluctuations in the oxygen content towards the more oxygenated bottom waters and sediment.

**Key words:** Ordovician, Šárka Formation, ichnofossils, Barrandian, *Pilichnus*, ichnofabrics