

## STRATIGRAPHY AND DEPOSITIONAL SETTINGS OF THE LATE FAMENNIAN IN SOUTHERN BELGIUM – A SNAPSHOT OF THE PALEOENVIRONMENTS FOR LATE DEVONIAN TETRAPODS AND ARTHROPODS

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The Belgian Famennian recently received much attention after the discoveries of *Ichthyostega*-like tetrapod remains and outstandingly preserved continental arthropods. The Strud locality has yielded a diverse flora and fauna including seed-plants, tetrapods, various placoderm, actinopterygian, acanthodian and sarcopterygian fishes, crustaceans (decapods, conchostracans, notostracans and anostracans) and a putative complete insect. Most of the fossils are currently under examination but the assemblage is one of the oldest continental, probably fresh-water ecosystems recording such a vertebrate and invertebrate diversity. The study of the paleoenvironment of the Strud Lagerstätte is thus primordial because it took place during the earliest phase of tetrapod evolution (i.e. after their emergence and before their terrestrialisation). It raises the question of the environmental and ecological conditions for Devonian aquatic settings and of selection pressures occurring at the onset of terrestrialisation. This study characterized the fluvial facies of the late Famennian of Strud and surrounding area. The exceptional preservation of arthropods and plants in the main fossiliferous layers is explained by quick burial in fine-grained sediment of the calm and confined floodplain environment. Moreover, the correlation of the investigated sections allowed a review of the age of the fossiliferous horizon, which is now confirmed as Late Famennian.

