

Abstract:

In addition to the previously known eurypterid taxa from Willwerath, remains of *Parahughmilleria hefteri*, *Erieopterus* sp., and *Jaekelopterus rhenaniae* are described and figured. Body parts of small pterygotids are interpreted as representing juveniles of *J. rhenaniae*. To further substantiate this interpretation an analysis of telson ontogeny in the Silurian *Acutiramus macrophthalmus* of New York State, another well-known pterygotid, is included. As a result, it is suggested that *Pterygotus juvenis* is a juvenile and thus a junior synonym of *A. macrophthalmus*. The genital appendages of *J. rhenaniae* show no segmentation and consequently the family Jaekelopteridae is rejected. The palaeoenvironment of the Willwerath eurypterid association, dominated by *Adelophthalmus* and *Rhenopterus*, is interpreted as a shallow brackish to freshwater/terrestrial setting in a deltaic transitional facies. In contrast, *Parahughmilleria*-dominated eurypterid associations from the Rhenish Slate Mountains seem to be confined to Lagerstätten where a marine influence is more obvious than at Willwerath.