

Changes in benthic ostracod assemblages across the Devonian/Carboniferous boundary in the Holy Cross Mountains, Poland

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The Kowala section situated in the southern part of the Holy Cross Mountains represents continuous sedimentation in almost the same facies across the Devonian-Carboniferous (D-C) transition. The D-C boundary has been identified about two meters above the top of the cephalopod nodular limestone with *Wocklumeria*. In the transitional deposits of the latest Famennian (*Prothognathodus kockeli* Zone) several faunally distinct units that correspond to relative sea level changes in the area have been identified. Ostracods are abundant in the Kowala sequence. Their assemblages contain well known index species and new ones of the Thuringian and Entomozocean ecotypes. A total of 15 probably planktonic entomozoaceans, and 64 benthic species have been identified. *Healdia shangquii* sp. n. and *Mauryella polonica* sp. n. are proposed. A major change in the ostracod fauna takes place above the limestone with *Wocklumeria* within the transitional interval represented by clays and claystones with tuffites in its middle part. Thuringian and Entomozocean ecotype ostracods disappear and are replaced by more shallow water 'exotic' assemblage dominated by *Healdia*, *Mauryella* and *Monoceratina* species. In the early Tournaisian rocks Thuringian, Entomozocean and *Bairdia* type ostracods reappear with some of the same species as before, and with new Carboniferous index taxa.

Key words: Ostracoda, palaeoecology, Late Devonian, Early Carboniferous.

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