

Ostracods and fore-reef sedimentology of the Frasnian-Famennian boundary beds in Kielce (Holy Cross Mountains, Poland)

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Four major microfacies have been recognized in the Psie G  rki section and the bioclastic content indicates an open marine environment in the photic zone close to an algal shale. Sedimentological studies point to a regressive episode starting close to the Frasnian-Famennian boundary. The regressive microfacies pattern is revealed by the presence of semi-restricted algal microbreccias that compose all of the lower part of the Famennian. The regression was accompanied by meteoric water invasion as the sea level fell. Seventy-six ostracod species are recorded. The ostracod assemblage, dominated by podocopids, belongs to the Eifelian ecotype and is indicative of a well-oxygenated marine environment below fair-weather wave base in the Frasnian part of the section, and of shallower environments in the base of the Famennian. No ostracod assemblage characteristic of hypoxic or semi-restricted water conditions has been recorded. The rate of extinction of ostracod species (>70%) close to the Frasnian-Famennian boundary is comparable with that known on the same level in several other sections investigated in the world. Five new ostracod species are proposed by J.-G. Casier and F. Lethiers: *Selebratina vellicata*, *Samarella?* *minuta*, *Bairdiocypris ventrorecta*, *Acratia pentagona*, and "*Bairdia*" *psiegorkiensis*.

Key words: Ostracoda, sedimentology, mass extinction, Frasnian, Famennian, Holy Cross Mountains, Poland.

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