

## Crinoid and ostracod succession within the Early-Middle Frasnian interval in the Wietrznia quarry, Holy Cross Mountains, Poland

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Early-Middle Frasnian ostracods and crinoids from Wietrznia in the Northern Kielce subregion of the Holy Cross area were analyzed. Twenty three ostracod species assigned to thirteen named genera, as well as eighteen crinoid species including the representatives of fifteen stem-based taxa were distinguished. For most of the species open nomenclature is applied. The composition of ostracod assemblage changes from moderately diverse in the lower part of the *Palmatolepis transitans* Zone to poorly diverse in its higher part. Lack of ostracods in the uppermost part of the *Pa. transitans* Zone and in the *Palmatolepis punctata* Zone is noted. The crinoid distribution pattern comprises the interval of relatively high diversity, interrupted in the uppermost part of the *Pa. transitans* Zone, and the interval of temporary recovery in the lower *Pa. punctata* Zone. Such distribution patterns point to deterioration of environmental conditions across the Early-Middle Frasnian transition, coinciding with a large-scale C-isotopic perturbation superimposed on intermittent, two-step eustatic sea level rise. On the other hand, impoverished, surviving crinoid faunas and absence of ostracods in the *Pa. punctata* Zone indicate the overall long-term deterioration of life conditions through the major C-isotope anomaly time span. However, this may also result from syndimentary tectonic pulses, causing block movements and large-scale resedimentation phenomena on the northern slope of the Dyminy Reef during the basal Middle Frasnian sea level rise.

**Key words:** Crinoidea, Ostracoda, Frasnian, Holy Cross Mountains, Poland.

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