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Hardgrounds and ecological succession in the light of early diagenesis (Jurassic, Holy Cross Mts., Poland)

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Benthic assemblages associated with Upper Jurassic hardgrounds in the Holy Cross Mts. display false, plausible, broken and real ecological succession. The breaks in the succession appear to be influenced by hydrodynamic activity, changes in salinity, pH, water chemistry, and rates of sedimentation and cementation of the carbonate deposit. The studied hardgrounds were developing in a vast shoal characterized by numerous islands and bars migrating in time and space. Environmental changes were drastic, reducing diversity of life-habitat associations to opportunistic species. Deposits were cemented by both calcite and aragonite which indicates conditions of cementation similar to those of Recent carbonate Sedimentary environments.

Key words: Paleoecology, biosedimentology, ecological succession, carbonate petrology, cementation, Jurassic, central Poland.