

Evolution of the bank to reef complex in the Devonian of the Holy Cross Mountains

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Acta Palaeontologica Polonica 37 (2-4), 1992: 87-182

Givetian and Frasnian stromatoporoid-coral limestone of the Kowala Formation in the southern Holy Cross Mts is subdivided stratigraphically, and correlated with strata elsewhere on the basis of identified sea-level cyclicity, with support from conodonts and other selected benthic fossils. After the Eifelian hypersaline sabkha phase, an extensive two-step regional colonization of the Kielce Region carbonate platform took place during the Eifelian/Givetian passage interval and the Middle Givetian. At least four deepening pulses resulted in intermittent drowning of the vast carbonate platform and sequential replacement of the undifferentiated *Stringocephalus* biostromal bank by the Sitkówka bank complex and, subsequently, by the Dyminy reef complex. The reef developed in the central Dyminy belt as a result of the early Frasnian accelerated sea-level rise after some period of biotic stagnation near the Givetian-Frasnian boundary. Final demise of the reef resulted from combined eustatic and tectonic movements during the late Frasnian major crisis interval.

Key words: Reefs, lithostratigraphy, biostratigraphy, stromatoporoid, corals, cyclicity, benthic assemblages, eustasy, Devonian, Poland.

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