

Emergence and collapse of the Frasnian conodont and ammonoid communities in the Holy Cross Mountains, Poland

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The dominant factor in faunal succession of conodonts in the Frasnian of Poland is the apparent immigration of species originating allopatrically in other regions. Each immigration event usually changes the population variability of a local species (character displacement). Only a few lineages show their phyletic evolution within the studied area. Attempts to distinguish conodont species on the basis of platform element shape failed in some of the latest Frasnian palmatolepidids. Even at the apparatus-based generic level, certain ramiform elements of the apparatus appear much more diagnostic than the platforms. Correlative value of the late Frasnian palmatolepidids of unknown apparatus structure is thus questionable. The evolution of platform elements in *Ancyrodella* offers a more solid basis for age determination although their great population variability makes resolution rather low and requires the population approach. The panderodontids *Belodella(?) tenuiserrata* sp., *B. minutidentata* sp. nov., *B. robustidentata* sp. nov., prioniodontid *Icriodus kielcensis* sp. nov., enigmatic monospecific Playfordiidae fam. nov., prioniodinids *Dyminodina planidentata* gen. et sp. nov., *D. anterodenticulata* sp. nov., *D. kovalensis* sp. nov., *Pluckidina kielcensis* gen. et sp. nov., *P. slupiensis* sp. nov., *P. robustipegmata* sp. nov., and *P. lagoviensis* sp. nov., derived polygnathid *Avignathus bifurcatus* sp. nov., probably secondarily simplified polygnathid *Nicollidina* gen. nov., and palmatolepidids *Kielcelepis* gen. nov., *Lagovilepis* gen. nov. and *Klapperilepis* gen. nov. are proposed.

Key words: Conodonta, Ammonoidea, Devonian, evolution, Holy Cross Mountains, Poland

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