Stratigraphic horizons and facies with oncocoids, microoncocoids and pisoids in the Western Carpathians

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Calcareous oncocoids of marine origin occur in the Wetterstein facies s.l. (from the Anisian to Norian with a maximum in the Ladinian) in the Silica Unit, further in the Rhaetian-Hettangian limestones (mostly oncocoids with Girvanella) especially in the Krížna Nappe and in the Tithonian limestones of the Zdánice Unit (with Girvanella, Marinella lugeoni, Koskinobulina socialis etc.).

The microoncocoid microfacies of the Sinemurian age in the Krížna Nappe (Velká Fatra Mts. and Nizke Tatry Mts.) is noteworthy, as well as a special microoncocoid microfacies with Globochaete and Saccocoma in the Tatra Unit of the High Tatra Mts. and numerous localities in form of blocks and pebbles associated with exotic rocks in the conglomerates of the Pieniny Klippen Belt. These microoncocoids ("pelagic ooids") are associated exclusively with planktonic organisms; they originated under conditions differing from other ooids.

Freshwater oncocoids are characteristic for the Upper Turonian–Lower Coniacian freshwater limestones on the Malé Karpaty Mts. and Stratená Mts. They occur also in the Quaternary limestones and in some recent streams. An intercalation with the freshwater dolomitized pisoids within the Carboniferous dolomites with marine fossils is an interesting phenomenon.

Oncocoids of different mineralogical composition occur sporadically within the condensed facies. In the red, mostly nodular limestones, the chlorite oncocoids with abundant encrusting foraminifers were found in the Toarcian of the Velká Fatra Mts. and in the Oxfordian of the Malá Fatra Mts. Haematite oncocoids are known at the same localities, further in the Middle Liassic limestones of the Silica nappe and in the Middle Jurassic of the Czorsztyn Unit. Mn (and Fe-Mn) oncocoids occurred in the Middle Jurassic of the Choč nappe in the Čachtické Karpaty Mts.

Rare phosphatic oncocoids were found in the Hettangian–Sinemurian sediments of the Velká Fatra Mts. and in the Lower Cretaceous of the Niedzica Unit.