

Ordovician microfauna from the Mishina Gora section, Russia

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Mishina Gora impact structure is situated in NW Russia, east of Lake Peipsi. The 60–70 degrees tilted blocks in an old limestone quarry present a unique opportunity to study Ordovician succession in an area otherwise covered with Devonian sediments. Stratigraphically, the section ranges from the Middle Cambrian Sablinka Formation up to the Middle Ordovician Uhaku (or even Kukruse?) Stage. However, field observations, as well as microfaunal studies have revealed that due to dislocations, part of the strata are “repeated”, i.e. they recur in the section several times. Lithologically, as well as faunistically, the section shows transitional characteristics between the shallow-water North Estonian facies and the deeper Central Baltoscandian facies.

The micropalaeontological samples, treated with sodium hyposulphite, yielded rich fauna, with ostracods as the most numerous and taxonomically diverse fossil group. Although dolomitization has destroyed a large portion of carbonate fauna in the lower part of the section, the calcitic ostracod carapaces in most upper (esp. Darriwian) part of the section show excellent preservation.

Besides rich ostracod fauna, samples from the upper part of the section also have yielded rich fauna of microscopic gastropods, juvenile brachiopods, sponge spicules, bryozoans and echinoid fragments. Less numerous were prasinophyte and graptolite finds. Unique faunal elements are fossilized echinoderm (probably starfish) bivalved pedicellaria, that have been originally described under generic name *Bursulella*.

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