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New finds of fishes in the lower uppermost famennian (upper devonian) of central russia and habitats of the khovanshchinian vertebrate assemblages

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Abstract

© 2018 Authors. New vertebrate finds from the Khovanshchinian Regional Stage (lower uppermost Famennian, Upper Devonian) made an important contribution to our knowledge of the composition and distribution of vertebrate assemblages in Central Russia. The remains of the latest arthrodires found for the first time in the East European Platform are described from the Voskresenskoye quarry (Lipetsk Region, Central Russia). Those occur within the deposits of the same basin, which had also been dwelled by tetrapods. The upper and uppermost Famennian non-groenlandaspidid arthrodires are known from only few localities in North America, Belgium and Poland. The separation of habitats of the tetrapod community and arthrodires in the Khovanshchinian basin may be due to local variations in the salinity level; these placoderms are possibly stenohaline marine dwellers. Environmental conditions of vertebrate communities in the Khovanshchinian Sea of the Moscow syneclise basin ranged from shallow-water brackish environment with still hydrodynamics and fast sedimentation to marine conditions with active hydrodynamics in the near-shore shallow waters. The osteolepiform genus Eusthenodon, recognized now from the Gorbachevo quarry (Tula Region, Central Russia), is characteristic of the Khovanshchinian vertebrate assemblage of Central Russia, but is also a marker genus of palaeotetrapod communities in Laurussia and East Gondwana.

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Keywords

Arthrodira, Bivalves, Central russia, Devonian, Eusthenodon, Khovanshchinian, Ostracods, Palaeoecology, Vertebrate communities

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