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Subfossil cladocera (Branchiopoda, Crustacea) in climatic and palaeoenvironmental investigations in eastern Siberia (Russia)

Frolova L.

Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© SGEM 2016. Cladocera (Crustacea: Branchiopoda) is a key component of aquatic ecosystems. Their community structure reflects combination of physical, chemical and biological characteristics of the system they inhabit. The aim of this research is to study the taxonomic and ecological diversity of cladoceran microfossil assemblages of eastern Siberia to determine their distribution within the region with regard to environmental gradients, as well as to reveal the influence of environmental factors on structuring cladoceran communities with special regard to climate-dependant environmental parameters. We study remains of subfossil Cladocera taken from lakes and ponds located in north-eastern Siberia (Russia). Distributions of the cladoceran taxa, however, revealed substantial shifts in cladoceran communities in relation to temperature along the investigated transect. Overall, the importance of climate dependant physical and chemical factors in structuring cladoceran communities is similar to results obtained from other previously studied regions and suggests that Cladocera may be useful ecological and palaeoenvironmental indicators in the poorly studied regions of Russian Arctic.

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Keywords

Palaeoclimatology, Palaeolimnology, Russian Arctic, Subfossil Cladocera