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ABSTRACT BOOK

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The 3rd International Symposium of Benthological Society of Asia is held in Vladivostok, Russia, from 24 to 27 August 2016, then from 27 to 31 August 2016 is continuing as The First International Youth Freshwater Ecology School. Various aspects of freshwater and marine biodiversity, biology and ecology problems are in the focus of the Symposium papers. Special attention has been paid to conservation of waters in the urban and wildlife areas of Asian region. Water quality and transboundary water ecosystem monitoring and control are considered at the international point of view as well as questions of ecological education and involving of public to water resources protection. The future international cooperation in different branches of benthological fundamental and applied sciences is discussed.

The book will be interesting for specialists in biology, ecology and biogeography, for practical workers, students and public deal with the water ecosystems protection, monitoring and control.

Co-Conveners: Academician of RAS Yu.N. Zhuravlev,
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(O29) SEASONAL DYNAMICS OF PSAMMON IN BOLSHIYE KOTY BAY
(SOUTHERN BAIKAL)

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In Lake Baikal, there is a unique splash zone. The part of it is represented by sandy beaches whose fauna (psammon) is poorly studied. The first studies on Baikal psammon were performed in the 1980s (Arov, 1987). We continued these investigations since 2008. The elevated anthropogenic effect on the coastal zone of the lake and impressive changes in the communities of flora and fauna occurring in recent years (Timoshkin *et al.*, 2016) necessitate to perform investigations of the pre-critical state of the communities, including meiopsammon of the lake. The aim of this work was to study composition and specific characteristics of ecology and dynamics of meiopsammon in Bolshiye Koty Bay (Southern Baikal). The material was sampled with a plastic tube 6 cm in diameter at a distance of 0.5 m from the shoreline from four beaches in the bay in 2008–2013.

We identified the following taxonomic groups inhabiting the sandy beaches: Nematoda, Oligochaeta, Harpacticoida, Cyclopoida, Tardigrada, Turbellaria, Rotifera, Ostracoda, Acariformes, Cladocera, Bathynellidae, and Plecoptera. Some hydrobionts were brought to this area from the littoral zone during storms: benthic Polychaeta, Amphipoda, Bivalvia, Gastropoda, and Hirudinea; larvae of Chironomidae and Trichoptera; planktonic *Epishura* and Cladocera. The most common and abundant were Oligochaeta (42 % general abundance), Tardigrada (15 %), Cyclopoida (14 %), and Nematoda (12 %). Sheveleva *et al.* (2013) analyzed species diversity of some groups. Baikal psammon is specific because of some species are endemic to the splash zone. Grain size of sediments plays a leading role in psammon distribution (Gier, 2009). We regularly recorded the highest abundance of communities on the beach with a median particle diameter (Md) of 1.7 mm. On other beaches, the sediment grain size was either coarse (Md 3.4 and 3.6 mm) or fine (Md 1.2 mm). Nematodes dominated in the biotopes with fine sediment grain size, whereas other beaches were dominated by Oligochaeta and Tardigrada. The majority of organisms concentrated at the layer of 6–9 cm from the bottom surface. Average abundance of psammon was $160 \pm 20 \times 10^3$ specimens/m². Annual maximal abundance of communities was high – approximately 2×10^6 specimens/m². So high values of abundance have not been recorded before in the lakes of Eurasia. Moreover, Tardigrada dominated in the communities. That was unusual. In spring, the community abundance was low – 20×10^3 specimens/m², whereas in one of the summer months it reached its maximum (400×10^6 specimens/m²), and in autumn its abundance decreased again. Abundance was also high in May in the years with early ice breaking. Oligochaeta and Tardigrada formed the peaks of abundance. The percentage of Oligochaeta and nematodes was higher in spring and autumn months. However, by the middle of summer it dropped due to the increase of abundance of other groups. Tardigrada and cyclops dominated in the warmest months – July and August. Thus, taxonomic composition of the community at the group level has not changed in comparison with that studied 30 years ago (Arov, 1987). But we recorded very high values of abundance that had never been recorded before in Baikal and other lakes of the continent. Moreover we first studied the seasonal abundance dynamics of psammon.

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Key words: *Baikal, psammon, seasonal dynamics*