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PRIMORSKY BRANCH OF THE HYDROBIOLOGICAL SOCIETY AT RUSSIAN
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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,
Dr. N.K. Khristoforova (FEFU) & Ph.D. T.S. Vshivkova (IBSS FEB RAS)

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(P33) THE FEATURES OF ZOOBENTHOS OF OXBOW LAKES IN THE
BOLSHOY YUGAN RIVER BASIN (MIDDLE OB REGION, SIBERIA)

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Oxbow lakes are a typical element of floodplains of large and medium-sized rivers in Western Siberia. These waterbodies are formed by meandering rivers and remain connected with them for long periods. Usually an oxbow lake connects with the river through a single channel; during seasonal floods water flows directly from the river into the lake through this channel. The distal, or "blind" end of an oxbow lake quickly becomes silted and overgrown with water plants, and the connecting channel at this end eventually disappears.

In 2012, we studied the zoobenthos of two oxbow lakes belonging to the floodplains of two rivers in the Middle Ob region: the Bolshoy Yugan Lake and its major tributary, the Negus'yakh Lake. In each of the lakes, sampling stations were located near the "blind" end (1), near the channel (3) and between them, in the middle (2). At each station, three samples were collected using a Petersen bottom sampler. We found 17 taxa of invertebrates in the Bolshoy Yugan oxbow lake and 19 taxa in the Negus'yakh oxbow lake. The similarity of taxonomical composition was estimated at 0.61 using the Sørensen index, which is not a high value. The distribution of taxa at the sampling stations in the two lakes is similar. The fewest taxa were registered in the middle stations (№ 2), in the oxbow lake of the Bolshoy Yugan, with 41 % of the total count, and in the oxbow lake of the Negus'yakh – 26 %. The maximal taxonomical richness was registered at both stations № 1, with 82 % and 68 %, respectively. The quantitative distribution of the zoobenthos in the two lakes was irregular and varied considerably between stations of the same lake. The mean number of zoobenthos in the oxbow lake of the Bolshoy Yugan ranged from 3.3 to 12.5 K specimens/m², and mean biomass – from 6.9 to 11.2 g/m². The mean number (0.2–5.6 K specimens/m²) and biomass (0.2–9.9 g/m²) in the Negus'yakh oxbow lake were considerably lower. The structure of the zoobenthos and its distribution between the sampling stations in the two lakes were similar. In Western Siberia, three groups of zoobenthos are the most important: oligochaetes, mollusks and chironomid larvae. In the studied waterbodies, mollusks and oligochaetes showed a low abundance and apparently do not play a significant role. Chironomid larvae (with *Chironomus* and *Camptochironomus* being the dominant genera) and dipteran larvae of the family Chaoboridae (*Chaoborus flavicans* Meigen) accounted for the bulk of abundance and biomass. The maximum number and biomass of zoobenthos in the Bolshoy Yugan oxbow lake was registered at sampling stations 1 and 3. Chironomid larvae formed the bulk of abundance (85–87 % by number and 63–87 % by biomass). The detritophages of genera *Chironomus* and *Camptochironomus* dominated. At the station 2, predatory larvae of *Chaoborus flavicans* dominated (78 % by number and 62 % by biomass). In the zoobenthos of the Negus'yakh oxbow lake, the highest values of abundance and biomass were recorded at the station 1, where chironomid larvae dominated (87 % by number and 94 % by biomass). Species of the genera *Chironomus* and *Camptochironomus* prevailed. At the stations 2 and 3 larvae of *Chaoborus flavicans* dominated (79–90 % by number and 84–94 % by biomass).

Key words: zoobentos, oxbow lakes, Western Siberia, Bolshoy Yugan River, Negus'yakh River