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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.

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(O61) FEEDING OF *MESENCHYTRAEUS BUNGEI* MICHAELSEN –  
DOMINANT ENDEMIC ENCHYTRAEID (OLIGOCHAETA)  
IN LAKE BAIKAL SPLASH ZONE

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Baikal oligochaetes have been studied for about 100 years and the species list consists of over 200 species (Semernoy, 2004). Though one cannot state this difficult and outstanding invertebrate group is thoroughly investigated in terms of their ecology. Baikol oligochaetes' life cycles, features of the trophism and respiration are almost unknown.

The family Enchytraeidae is one of the most insufficiently known families of oligochaetes in Lake Baikal. Up to date, only two species have been described for the whole lake (Semernoy, 2004). It is surprising because enchytraeids are typical of freshwater habitats (Timm, 1996). Recently we have started an investigation of newly determined zone in Lake Baikal – splash zone (Timoshkin *et al.*, 2011). Enchytraeids are common inhabitants of marine and lakes coastal zone where they are recorded in a huge mass (Dózsá-Farcas, 1998; Giere, 2009). Lake Baikal is not an exception: we found out the only one endemic species of Enchytraeidae, *Mesenchytraeus bungei* Michaelsen, 1901, dominates in abundance (92 % of total number) in splash zone Oligochaeta community of Lake Baikal (Zvereva *et al.*, 2012). It swarms in detritus accumulated on the shores. *M. bungei* predominance indicates the species significant role in the lake ecosystem functioning; therefore, we have begun studying of its feeding. Feeding of *M. bungei* was studied by means of its pellets content examination. We collected worms in Bolshie Koty Bay (Southern Baikal) in different seasons of 2010–2012 and 2015. We examined only mature worms of the largest size group (3–4 cm long), 207 *M. bungei* specimens in total. They were kept in Petri dishes with 3 ml of bottled Baikal water in the fridge individually for 24 h. Then pellets from the dishes were used for the preparation of slides. We examined the slides under a microscope and estimated the percentage contribution of each food component in 10–20 microscopic fields per slide. We obtained the results on *M. bungei* feeding in terms of seasonality in different years. Diverse components in different ratio were found during the whole period of investigation, namely green algae (*Ulothrix zonata*, *Tetraspora cylindrica*, Cladophoraceae, *Spirogyra* sp.), higher plants debris (particularly, coniferous needles remains), diatoms (*Didymosphenia*, *Cocconeis*, *Hannaea*, *Cymbella*, *Navicula*, *Fragilaria*, *Synedra*, *Aulacoseira*), and varying animals remains (chitinous exoskeletons of crustaceans, oligochaetes, and insects). Some minor components, such as Cyanophyta, sponge spicules, pollen and colonial green algae, were also found. We subdivided all the content of pellets into plant and animal material, unidentified matter and soil particles and counted their percentage. Plant material appeared to be a dominant component (up to 55 %) in almost all seasons, whereas animal component rarely amounted to more than 30 %. Our analysis showed that *M. bungei* is a detritophage with a preference to phytogenous detritus. We also suggest a preference to filamentous green algae (particularly to *U. zonata*) for this oligochaete especially in early summer. Our research supposed to be logically continued studying the stable isotopes content of *M. bungei* to specify its trophic status. Usually it is difficult to interpret stable isotopes data without information on ecology of feeding. Our results may be regarded as the first data on feeding of Baikol enchytraeids.

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**Key words:** *Oligochaeta*, *Enchytraeidae*, *Mesenchytraeus bungei*, Lake Baikal, feeding, splash zone