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CHROMOSOMAL FEATURES OF THE VOLES OF THE GENUS ALEXANDROMYS (RODENTIA)

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Data on morphology, hybridization (Meyer et al., 1996), chromosome composition (Meyer et al., 1996; Mekada et al., 2001; Borodin et al., 2010), along with genetic analysis of nuclear and mtDNA (Conroy, Cook, 2000; Jaarola et al., 2004; Galewsky et al., 2006; Bannikova et al., 2010) showed independence of the vole from Asian phylogenetic line of Microtus from the rest lines and allowed to raise taxonomic level of East Asian voles *Alexandromys* Ognev, 1914 from subgenus up to genus (Abramson, Lisovsky, 2012). According to the genetic data separation of *Alexandromys* have happened approximately 1.2 Mya (Bannikova et al., 2010) and chromosomal rearrangements played an important role in the speciation (Frisman et al., 2016). The chromosomal rearrangements (Robertsonian, tandem fusions, para– and pericentric inversions, centric reposition and changes of heterochromatin material) have played an important role in speciation of the taxon (Modi, 1987; Mazurok et al., 2001; Lemskaya et al., 2010). In species of Microtus a polymorphism of chromosome numbers is a rare phenomenon, and polymorphism on the tandem fusion is absent completely (Modi, 1987, Zima, 1993, 2000). The East Asian voles of the genus *Alexandromys* is characterized by a high frequency of intra species polymorphism. We divided the species group into four types: (I) The species, which have stable karyotype in diploid number and number of arms of chromosomes: *A. montebelli, A. kikuchii, A. clarkei, A.sachalinensis* (2n = 50 NFa=60), A. gromovi (2n = 44), (II) Species with changeable karyotype in number chromosomes: *A. oeconomus* (2n=30-32) and *A. mongolicus* (2n = 49-50), (III) Species with changeable karyotype in number of chromosome arms: *A. fortis* (2n = 52, NFa=62-64) *A. middendorffii* (2n = 50, NFa = 54-56) and *A. limnophilus* Büchner, 1889 (2n=38,NFa=56-58), (IV) Species with changeable karyotype in number of chromosomes and chromosome arms: *A. mujanensis* (2n = 38, NFa = 46-50), *A. evoronensis* (2n = 38-40 NFa=51-54) and *A. maximowiczii* (2n = 36-44, NFa=50-60).

Recently, the genus *Alexandromys* was isolated from genus *Microtus.* According to the genetic and molecular data separation *Alexandromys* happened between approximately 1.2 Mya (Bannikova et al. 2010).