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# **DIVERSITY OF B CHROMOSOME MORPHOTYPES FOR *APODEMUS PENINSULAE* (RODENTIA) IN GEOGRAPHICAL POPULATIONS OF THE RUSSIAN FAR EAST**

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A species *Apodemus peninsulae* Thomas, 1906 is widely distributed in Russia: from the Siberia to the Pacific coast in the Russian Far East (FE), as well as in northern Mongolia, China, Korea, and Japan (in Hokkaido Island) (Gromov, Erbaeva, 1995). In addition to the main set of chromosomes (A), the karyotype of *A. peninsulae* contains additional chromosomes (B-chromosomes, Bs) that vary in number, size, and morphology. We have previously studied the variability of the number and morphotypes of B-chromosomes in the FE (Kartavtseva, Roslik, 2004; Roslik, Kartavtseva, 2009; 2023). The frequencies of rare B-chromosome morphotypes have previously revealed clinal variability from the east (south and east of Primorsky Krai) to the northwest of the range (in Khabarovsk Krai, the Jewish Autonomous Region, the Amur Region), associated with a gradual loss of rare variants of B-chromosome morphotypes.

New data are presented on the variability of numerical and morphotypic parameters of the *A. peninsulae* B-chromosomes from forest-steppe and forest landscapes of the Zabaikalsky Krai. Two geographic groups have been distinguished that significantly differ from each other in the numerical parameters of B-chromosomes: spectrums of number variations, the average number of Bs per individual index ( $\bar{x}B$ ) and the conditional DNA «mass» index ( $mB$ ) and also frequency of mosaics. Numerical parameters of Bs, as well as a different number and frequencies of morphotypes and mosaics, are maintained relatively low – in the «northwestern» group I, and on the contrary, high – in the «southeastern» group II. The barrier role of the large Shilka and Onon rivers in limiting the distribution of B-chromosome numbers in two geographical groups of samples is discussed. The karyotypes of all individuals contained micro-Bs, often in combination with small and medium (in the absence of large) structures. It is possible that a decrease in the diversity of Bs morphotypes is most typical for animals from forest-steppe landscapes, probably due to the existence of individuals at the edge of the range, in the most pessimal conditions for the species.

It is suggested that the observed geographic differentiation of *A. peninsulae* populations by B-chromosome morphotypes in the Russian Far East may be associated with the adaptation of different populations to different habitat conditions, climate, spectrum of zoonotic infections in host mice, and may be of great importance for the species as a whole.