

## MAMMOTH FAUNA OF BAIKAL SIBERIA: RESULTS OF RECENT ARCHAEOLOGICAL STUDIES

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Vast areas of Northern Eurasia were populated by a great diversity of mammals in the Paleolithic Age. V.I. Gromov (1948) distinguished the Upper Paleolithic faunal complex, the main species of which were *Mammuthus* and *Coelodonta*. The differences in the species composition of fauna in certain areas of North Asia were associated with different climatic conditions.

In the Baikal region, the bone remains of mammoth fauna have been collected at numerous sites since the beginning of the nineteenth century. The species composition of megafauna from some of the archaeological sites was determined by N.D. Ovodov (1975, 1987), A.K. Kasparov (Kasparov 1986; Kirillov and Kasparov 1990), M. Germonpre (Germonpre and Lbova 1996), N.P. Kalmykov (2001), Klement'ev (2007), and Sato (2008). The research results for the megafauna of these archaeological sites were summarized by N.M. Ermolova (1978). Small mammals enriched the taxonomic diversity of mammoth fauna considerably (Khenzykhenova 2008). In two subregions of the Baikal region, periglacial Siberian (Fore-Baikal area) and non-glacial arid Central Asian (Transbaikalian area), the differences were distinguished in the species composition of the mammal association and paleoenvironment.

Thus, in Zabaikalie, the fauna of the Kargin Interstadial (MIS 3): Varvarina Gora, Sukhotino, Tolbaga, Kamenka, Podzvonkaya, Zangisan was represented by *Lepus timidus*, *L. tolai*, *Ochotona daurica*, *Spermophilus undulatus*, *Cricetulus barabensis*, *Marmota sibirica*, *Lasiopodomys brandti*, *Microtus gregalis*, *M. fortis*, *Canis lupus*, *Vulpes vulpes*, *V. corsac*, *Ursus arctos*, *Lynx lynx*, *Panthera leo*, *Crocota crocota spelea*, *Mammuthus primigenius*, *Equus caballus*, *E. hemionus*, *Coelodonta antiquitatis*, *Camelus* sp., *Megaloceros giganteus*, *Capreolus pygargus*, *Cervus elaphus*, *Alces alces*, *Rangifer tarandus*, *Procapra gutturosa*, *Spirocerus kiakhtensis*, *Saiga* cf. *tatarica*, *Capra sibirica*, *Ovis ammon*, *Bison priscus*, and *Poephagus baikalensis*. The fauna of the Sartanian glacial sites (MIS 2): Kunalei, Studenoe-2, Sannyi Mys, Cheremushki, Ust'-Kyakhta-17, Melnichnoe-2 included the following species: *O. daurica*, *M. sibirica*, *S. undulatus*, *Myopus schisticolor*, *Alticola* sp., *L. brandti*, *M. gregalis*, *M. fortis*, *Ellobius* cf. *tancrei*, *M. primigenius*, *C. antiquitatis*, *E. caballus*, *B. priscus*, *R. tarandus*, *C. elaphus*, *S. kiakhtensis*, *Saiga* sp. A rich species composition indicated the prevalence of dry steppes during the Sartanian glacial period and a high landscape pattern structure with domination of the steppes in the intermountain areas and forest-steppe territories on the mountain slopes and along the river valleys during the Kargin interglacial period.

In Predbaikalie, the fauna of the Sartanian sites (MIS 2)—Shishkino, Makarovo, Igetei geoarchaeological complex, Bol'shoi Yakor', Mal'ta, Buret', Krasnyi Yar, Lisikha, Fedyaevo, Vercholenskaya Gora and others—were represented by *L. timidus*, *O. pusilla*, *O. hyperborea*, *S. undulatus*, *S. cf. parryi*, *Marmota* sp., *Clethrionomys rutilus*, *Dicrostonyx guilielmi*, *Lemmus sibiricus*, *M. schisticolor*, *Lagurus lagurus*, *M. gregalis*, *M. cf. hyperboreus*, *M. cf. middendorffii*, *M. primigenius*, *C. antiquitatis*, *E. caballus*, *B. priscus*, *Ovis nivicola*, *M. giganteus*, *R. tarandus*, *C. elaphus*, *A. alces*, *U. arctos*, *C. lupus*, *Cuon* cf. *alpinus*, *Panthera leo*, *V. vulpes*, *Alopex lagopus*, *Gulo gulo*.

Modern joint archaeological studies by a Japanese-Russian team helped determine the first representative mammal fauna of the Kargin age (MIS 3) in Predbaikalie, at the Bol'shoi Naryn site in the southern part of the Bratsk reservoir, and at the Gerasimov site in Irkutsk. This fauna included the following mammals: *Sorex* sp., *Chiroptera* gen. indet., *Lepus* sp., *O. hyperborea*, *O. cf. pusilla*, *Ochotona* sp., *Eutamias sibiricus*, *Marmota* sp., *Spermophilus undulatus* Pall., *Cricetulus barabensis* Pall., *C. rutilus* Pall., *C. rufocanus*, *L. amurensis*, *M. schisticolor*, *D. cf. guilielmi*, *Dicrostonyx* sp., *Alticola* sp., *L. lagurus*, *M. gregalis*, *M. cf. middendorffii*, *M. ex gr. middendorffii-hyperboreus*, *M. cf. hyperboreus*, *M. oeconomus*, *Microtus* sp., *Alopex lagopus* L., *Martes zibellina* L., *Mammuthus* sp., *Equus* sp., *Cervus* sp., *Rangifer tarandus* L., *Bos* sp., and *Bison priscus*.

Thus, the species composition of the Predbaikalie mammal fauna indicated the existence of tundra-steppe landscapes in the first two-thirds of the Sartanian glacial period and tundra-forest-steppes in the final stage of the Sartanian glacial and during the Kargin interstadial period.

We think that further joint studies must answer the question as to why the share of the tundra species was considerable during the Kargin glacial period and what the degree of difference was between the natural environments of the Kargin interstadial and Sartanian glacial periods in Predbaikalie.