

THE HISTORY OF THE STUDY OF THE DISTRIBUTION AND THE CURRENT STATE OF THE POPULATIONS OF GROUND SQUIRRELS OF THE SAMARA REGION

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Abstract. *Background.* In literary sources, you can find some references to three species of ground squirrels (*Spermophilus*) that lived on the territory of the Samara Region. The borders of the region underwent the strongest historical changes during the XIX and XX centuries. At the same time, it is reliably possible to speak only about the constant presence of only two species of ground squirrels – russet (*S. major*) and little ground squirrel (*S. pygmaeus*). The penetration of a third species into the modern territory of the region – the speckled ground squirrel (*S. suslicus*) from the neighboring Ulyanovsk region was constantly predicted, but not recorded. The aim of the work was to analyze all historical data on the finds of ground squirrels in the Samara Region, to study the current state of the populations of ground squirrels in the modern territory of the Samara region with the specification of the species composition of the fauna of ground squirrels in the region, as well as to study the nature of the relationship of species of ground squirrels in secondary contact zones. *Materials and methods.* The material for the work was data from field studies of ground squirrels populations in the period from 2016 to 2021, conducted on the territory of the Samara region and adjacent regions, as well as literary data on the distribution of these rodent species in the XIX and XX centuries in the study region. In addition, the work used genetic data obtained during the analysis of biomaterial (biopsy) collected by non-invasive methods during field studies in some populations of ground squirrels, as well as the results of bioacoustic analysis. *Results.* The russet and little ground squirrels in the Samara region are species located on the border of their ranges and reducing their numbers (conservation status 2). The modern distribution of species is fragmented. The colonies of the russet ground squirrel ($n = 36$) are confined to various marginal and anthropogenic transformed landscapes. There are few known modern habitats of the little ground squirrel in the region ($n = 13$), which is due to the severe degradation of the typical arid steppe areas. In 2012 a hybrid female was found in the narrow overlap zone of the distribution areas of russet and little ground squirrels. The speckled ground squirrel is endangered on the border of its range (conservation status 1). Until the early 2000s, reliable facts of its habitat in the region were not noted. In 2021, a small colony of speckled ground squirrel was discovered in the vicinity of Syzran. Genetic data indicate the migration path of the formation of this speckled ground squirrel colony. *Conclusion.* The conducted studies of the current state of populations of three species of ground squirrels (*S. major*, *S. pygmaeus*, *S. suslicus*) on the territory of the Samara Region indicate: 1) most of their colonies have low numbers and stable isolation, 2) the distribution areas of species are highly fragmented and form narrow overlapping zones, 3) hybrid individuals (*S. major* × *S. pygmaeus*) can potentially be fixed in them and have already been discovered as a result of sporadic hybridization.

Keywords: ground squirrels, *Spermophilus*, Samara region, current distribution, state of populations

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