

**THE SCYTHIANS AND SARMATIANS IN THE STEPPES OF SOUTH RUSSIA:
CHANGE OF EPOCHS – REPLACEMENT OF GENE POOLS**

Rychkov Sergey¹, Morozova Irina¹, Batiyeva Elena², Kullanda Sergey³, Kovalevskaya Vera⁴,
Afanasyeva Alexandra⁵, Zhukova Olga¹

¹*Vavilov Institute of General Genetics, Russian Academy of Sciences, Moscow, Russia*

²*Institute of Arid Zones, Southern Scientific Center, Russian Academy of Sciences, Rostov-on-Don, Russia*

³*Institute of Oriental Studies, Russian Academy of Sciences, Moscow, Russia*

⁴*Institute of Archaeology, Russian Academy of Sciences, Moscow, Russia*

⁵*Centre for Egyptological Studies, Russian Academy of Sciences, Moscow, Russia*

The Russian steppes, due to their geographic location, have always served as a meeting place of cultures and peoples. It seems likely that contacts of Iranian-speaking nomads, i.e. Scythians and their successors Sarmatians, with the sedentary population in the beginning of the Early Iron Age influenced not only cultural traditions but also the genetic diversity of both parties. Comparative analysis of data on the nomads' genetic diversity implies that in spite of certain linguistic affinity, they are by no means similar genetically. The gene pool of the Scythians, i.e., Scythian nomads of the Volga-Don interfluvium of the 6th – 3rd centuries BC) contains two distinct components, East Eurasian and West Eurasian, the latter amounting to 70 percent. As to Sarmatians, i.e. the nomads roaming the left bank of the Don in the Middle-Sarmatian time, their gene pool is 94 percent West Eurasian. Comparative analysis of the gene pool components showed that mtDNA lineages belonging to the West Eurasian component common to these groups were nevertheless different by origin, and their affinity seems to be rooted in the early stage of the West Eurasian gene pool formation. Thus, the main waves of Iranian-speaking nomads introduced very different gene pools into the Southern Russian steppes. The genetic diversity of the early wave, the Scythians, is associated with Central Asia and Southern Siberia; while the later wave, the Sarmatians, carried the gene pool of Middle Eastern origin. Interestingly, the genetic conclusions are in accord with linguistic data implying that contrary to the predominant view, Scythian and Sarmatian languages belonged to different East-Iranian subgroups. It is worth noting that genetic traces of the two nomadic groups differ considerably. The Scythian gene diversity cannot be revealed either in ancient sedentary or in modern population of the Azov steppes. Meanwhile Sarmatian genetic influence can still be traced both in the ancient sedentary and modern population of the Russian steppes and the neighboring regions.

Key words: *Scythians, Sarmatians, gene pool*

Contact information: Rychkov Sergey, e-mail: sergey.yu.rychkov@gmail.com.