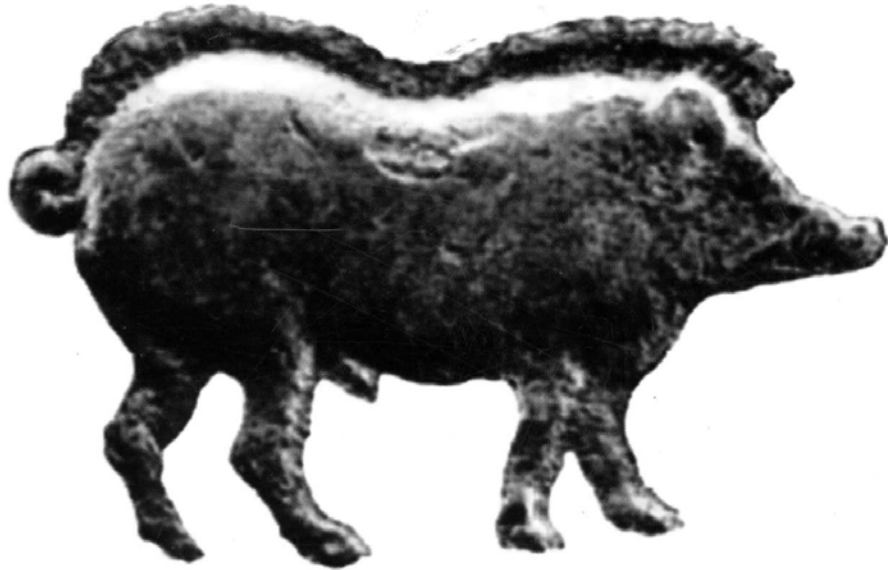


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Ancient Etruscan coin (Populonia, 4th Century b.C.; Archaeological Museum, Florence)

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MITOCHONDRIAL PHYLOGEOGRAPHY OF THE STRIPED FIELD
MOUSE (*APODEMUS AGRARIUS*) THROUGHOUT
THE PALAEARCTIC REGION

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The phylogeography of the striped field mouse, *Apodemus agrarius* (N=164) has been studied throughout its distribution area from China and the Russian Far East in the East, to Western Europe in the West). The mitochondrial cytochrome b was sequenced for these animals and the obtained dataset was analysed using different phylogenetic reconstruction as well as other methods adapted to phylogeography.

We evidenced that animals from China are separated from the remaining populations since at least one million years. This can be attributed to the island character of this region caused by strong biogeographic barriers (Himalaya, Tibetan Plateau, Gobi desert.) preventing gene flow between Chinese field mice populations and those of the Palaearctic regions. The Russian Far Eastern populations appear strongly associated with populations from Central Russia as well as Western Europe. Moreover, the Far Eastern striped field mice are also characterised by a high level of genetic diversity as compared to the other ones. This result strongly suggests that the Russian Far East was the population of origin for the striped field mice and that it is from there that it colonised the entire Palaearctic region. In contrast, the extremely low levels of genetic diversity characterising contemporary European populations suggest that they derived from a very recent colonisation of Europe, probably during the Early Holocene.