

Migration Route of Korean Wild Mouse

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It has been well established that wild mice from worldwide habitats show an extraordinary extension of genetic polymorphisms known in laboratory strains. They are actually quite useful not only for surveying valuable phenotypes in biomedical research, but for mapping new genes in mating experiments using an increasing number of marker loci. Wild mice were classified four commensal species, *M. m. domesticus*, *M. m. musculus*, *M. m. castaneus*, and *M. m. bactrianus*, plus three aboriginal species, *M. spicilegus*, *M. macedonicus*, and *M. spretus* subspecies using biochemical and molecular genetical markers. The native range of *M. m. domesticus* is Western Europe, North Africa and Middle East Asia and likely extends into Iran. *M. m. musculus*, known as the Eastern European house mouse, has a native range compassing Eastern Europe and all of Northern Asia. *M. m. castaneus* inhabit the south of the Yangtze river on the Chinese mainland, Taiwan, Philippines, Malaysia, Indonesia, Sri Lanka and India. Less genetic information is available for *M. m. bactrianus*, which is reported from the Western Indian subcontinent, but it appears likely to be a distinct toxin.

In the Korean peninsula, there is no detailed knowledge concerning about mouse migration route during prehistoric period. To understand this, wild mice that were caught from ten localities in Korea were analyzed using morphological, biochemical and molecular genetical methods. Our results suggest that the migration of wild mice in the Korea peninsula has two alternative possibilities. The first possibility is that *M. m. musculus* from Europe migrated to China and later, *M. m. castaneus* migrated from Eastern Siberia. The second possibility is that *M. m. musculus* from northern China came to the Korean peninsula and *M. m. castaneus* migrated from Northern Japan to Korea through the Japanese invasion.