

The genus *Rousettus* has a distributional pattern unique among fruitbats comprising both Asia and Africa and reaching northern distributional limits of the family in Persia, Arabia and the Mediterranean basin. This could be ascribed to the ability of echolocation, consequent cave dwelling, and presumably other site-specific adaptations, which enabled dispersal independent of forest block and surviving in Mediterranean type of climate. Using a fast-evolving mitochondrial marker, we aimed to assess genetic variability, its geographic distribution and demography of northern populations of the Egyptian fruitbat (*Rousettus aegyptiacus*). Mitochondrial network indicates deep genetic divergence between disjunct Mediterranean and eastern African parts of the range. Basal position of Sinai and Jordanian haplotypes within northern clade indicate an important role of these regions in colonization of eastern Mediterranean. Generally, the northern haplogroup is moderately diversified with partial geographic localization of particular haplotypes. Significant isolation by distance pattern suggests relatively pronounced site fidelity of particular colonies, at least in terms of maternal gene flow. Landscape genetics analyses indicate discontinuities in distribution of mitochondrial genetic variability, in some cases correlating with geographic barriers, e.g. in case of Cyprus, which could be explained by female philopatry. Local peak of haplotype diversity in Lebanon indicates a possible reservoir role of this territory. Demographic analyses revealed two-phase population history, a relatively long period of constant population size, presumably connected with relatively stable climate conditions of the Mediterranean basin and its exclusion from Pleistocene climate oscillations, and a recent growth, probably related to spread of agricultural plants by humans.