Phylogeography of the Black Kite Based on Mitochondrial Cytochrome B Gene Polymorphism

ФИЛОГЕОГРАФИЯ ЧЁРНОГО КОРШУНА НА ОСНОВЕ ПОЛИМОРФИЗМА МИТОХОНДРИАЛЬНОГО ГЕНА ЦИТОХРОМА Б

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The Black Kite (Milvus migrans) is common on the Eurasian continent, in Africa and Australia. This raptor’s successful adaptation to the anthropogenic landscape is intriguing, and the Black Kite’s abundance had recently been increasing. There are several subspecies of the Black Kite, but information about the phylogeny and structure of the species population remains extremely scarce. Attempts to clarify the phylogenetic relationships between subspecies based on DNA sequences have so far been confined to a very small sample of individuals, a majority of which were obtained in Europe.

We collected tissue samples of about 550 Black Kite individuals of four subspecies from different locations in Eurasia (including the countries of Europe, Russia, Kazakhstan, Mongolia, Pakistan, and India), as well as from Australia. Using the data on the mitochondrial cytochrome b gene (CytB) polymorphism, we showed that the geographical distribution of haplotypes corresponds to the distribution of three subspecies of Black Kite in Eurasia (M. m. migrans, M. m. lineatus, M. m. govinda) and is in good agreement with phenotypic analysis of Eurasian Black Kites. Thus, it can be stated that CytB polymorphism allows to clearly separate these subspecies.

Analysis of the CytB haplotypes network showed that the Black Kite population in Northern Eurasia was divided into eastern and western groups during the Pleistocene.
potentially and the widespread of remnant forests resulted in the formation of an intergrading zone in Western Siberia (from the Middle Volga to Altai). It also turned out that the South Asian subspecies *M. m. govinda* and the Australian *M. m. affinis* belong to the same branch of the phylogenetic tree, although it is now considered that these populations have no contact with each other. Apparently, this branch of the Black Kite has settled in South Asia and Australia in a short period of time at the end of the Pleistocene.

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