

عنوان مقاله:

روابط فیلوژنتیکی گربه وحشی (*Felis lybica/Felis silvestris*) در ایران با استفاده از ژن میتوکندریایی NADH5 و امکان سنجی شناسایی گربه وحشی آسیایی (*F. lybica ornata*) به وسیله این نشانگر

محل انتشار:

فصلنامه محیط زیست جانوری، دوره 12، شماره 2 (سال: 1399)

تعداد صفحات اصل مقاله: 10

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خلاصه مقاله:

The wildcat is one of the wild felids with the wide distribution and has a potential and distinctive threat from other felids that is introgression with domestic cat. Iran is at the intersection of two species of wildcat i.e. *Felis lybica* and *Felis silvestris*, however there is lack of information regarding taxonomic situation and hybridization of wildcat in Iran. In present study we sequenced 814 bp fragment of the mitochondrial NADH5 gene of 38 sampled wildcats from Iran to assess the genetic diversity and phylogenetic relationships of the species. The phylogenetic analyses represented two distinct subclades in Iran. The sequences of ND5 from Iranian samples in combination with 32 sequences of wildcats from GenBank, did not revealed a distinct subclade and they situated among the sequences of the Asiatic Wildcat and the African Wildcat and domestic cat. Twelve closely related haplotypes were identified for the entire country, with two geographical distinct locations for western and eastern Zagros Mountain Range and overlapping in some areas. The statistical analyses of fixation index (FST) and molecular variance (AMOVA) illustrated significant genetic structure between two subclades ($F_{ST}=0.66$). Nucleotide (G) has located in the position of 13776 on the NADH5 that provides possibility of Asiatic Wildcat (*F. l. ornata*) identification. Accordingly 24 samples out of 38 specimens in this research were recognized as the Asiatic Wildcat in the prior assessment that this finding was in accordance with the phylogenetic Bayesian tree. Meanwhile the Asiatic subclade revealed a higher genetic diversity than the African subclade.

کلمات کلیدی:

ژنوم میتوکندری، ژن NADH5، باز G، گربه وحشی آسیایی، هیبریداسیون

لینک ثابت مقاله در پایگاه سیویلیکا:

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