Viewpoint

Phylogenetic analysis of oryx species using partial sequences of mitochondrial rRNA genes

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ABSTRACT. We conducted a comparative evaluation of 12S rRNA and 16S rRNA genes of the mitochondrial genome for molecular differentiation among three oryx species (Oryx leucoryx, Oryx dammah and Oryx gazella) with respect to two closely related outgroups, addax and roan. Our findings showed the failure of 12S rRNA gene to differentiate between the genus Oryx and addax, whereas a 342-bp partial sequence of 16S rRNA accurately grouped all five taxa studied, suggesting the utility of 16S rRNA segment for molecular phylogeny of oryx at the genus and possibly species levels.

Key words: Mitochondrial DNA; rRNA genes; Phylogeny; Endangered animals; Oryx species