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Abstract: Red deer (Cervus elaphus) from some 50 European populations were screened for electrophoretic polymorphism at 43 enzyme loci and for mitochondrial (mt) DNA variation using a battery of 16 restriction endonucleases. Allozymic differentiation among populations was due to variation in frequencies of some ubiquitous alleles rather than to many rare or private alleles. By contrast, red deer stocks of different geographical areas were frequently monomorphic for different mtDNA haplotypes. MtDNA phylogeographc patterns corresponded well with the hypothesis of different glacial refugia reported in the literature. Possible reasons for a disagreement between red deer systematics based on allozymes and on mtDNA, such as natural and artificial selection acting on allozyme genotypes, are discussed.
MITOCHONDRIAL DNA-RFLP's VERSUS ALLOZYMES IN RESOLVING GENETIC DIFFERENTIATION WITHIN AND AMONG EUROPEAN RED DEER (CEVRUS ELAPHUS) POPULATIONS

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