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First molecular characterization of the genus *Anatololacerta* and validation of morphological subspecies with mitochondrial markers

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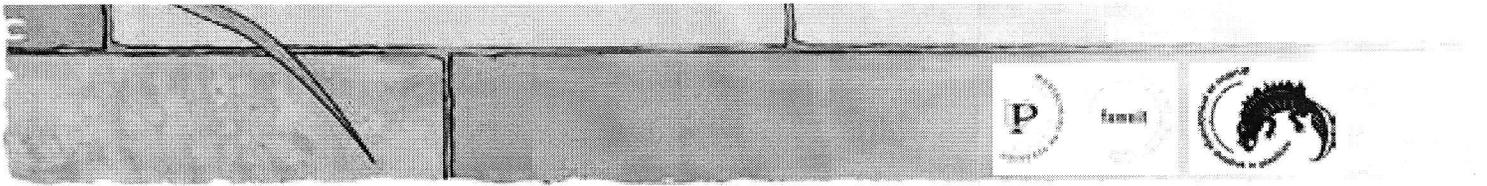
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Anatololacerta is a genus recently erected for a small group of lizards endemic to Western Anatolia (Turkey) and some neighboring Greek islands. Three species are generally recognised: *A. danfordi* (Günther, 1876), *A. anatolica* (Werner, 1900), and *A. oertzeni* (Werner, 1904). Other subspecific taxa described are: *pelasgiana* (Mertens, 1959), *pentanisiensis* (Wettstein, 1964), *quandtaylori* (Börner, 1974), as well as *aegaea*, *budaki*, *finikensis*, *ibrahimi*, described on morphological bases by Eiselt & Schmidtler (1986). In a chemosystematic study based on albumins, Mayer & Lutz (1989) stated that "The biochemical differences between *L. danfordi*, *L. oertzeni* and *L. anatolica* are too small to confirm their taxonomic revalorisation". Following these authors, Sindaco & Jeremčenko (2008) considered all the taxa as belonging to a single species, *A. danfordi*. Anyway, the taxonomic value of the described taxa has not yet been addressed with molecular techniques. We performed a molecular phylogenetic analysis using two mitochondrial markers (12S rRNA, cytochrome b) on 32 museum specimens, representative of all described taxa except *A. o. oertzeni*, *A. o. pentanisiensis* and *A. anatolica aegaea*. We inferred Maximum Likelihood and Bayesian phylogenetic trees using the sister-taxon *Parvilacerta*



as an outgroup. We also obtained haplotype network reconstruction based on parsimony algorithm to elucidate phylogeographic relationships within distinct clades. Results showed that at least *A. danfordi* and *A. anatolica* appear well differentiated at mitochondrial markers, whereas a higher genetic variation characterized *A. oertzeni*. Interestingly, genetic variation did not match the subspecific classification of specimens based on morphology. Further studies with nuclear markers are highly desirable to better resolve the phylogeny and the systematics of the genus.

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