Investigation of the evolutionary history of the wall lizard Podarcis erhardii (Sauria, Lacertidae) in Balkan Peninsula

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One of the most important groups within the family of Lacertidae is the genus Podarcis that has a broad distribution across Mediterranean and has been proven to be an ideal model for biodiversity studies, as they have undergone a remarkable radiation, exhibiting high levels of differentiation. The genus includes 26 species, having been proven to be an ideal model for biodiversity studies, as they have under-

P. erhardii, a species widely distributed throughout the Balkans, ranging from the southernmost reaches of the Dinaric Alps to the southern end of the Aegean archipelago, aiming to infer intra- and inter-specific phylogenetic relationships, and evaluate the validity of its current taxonomy based on multiloci genetic data. The analyses have showed that P. erhardii is monophyletic, showing a sister group relationship with the P. cretensis subgroup (P. cretensis, P. levendis, and P. peloponnesiacus, and P. thais). Within P. erhardii, two major clades were identified. The first contains individuals from Cyclades, south-east continental Greece, the Peloponnesse, and south Evoikos Bay. The second includes individuals from continental Greece, other Balkans (Albania, Serbia, North Macedonia, Bulgaria), and Sporades (north Aegean). The divergence of P. erhardii from P. cretensis subgroup has occurred at the end of Miocene, whereas the intraspecific diversification at early Pliocene with the split of the Cyclades clade from the continental Greece, Sporades and other Balkans. The species delimitation analyses indicated the presence of at least 4-5 distinct identities within P. erhardii, highlighting the need of reevaluation of P. erhardii taxonomy.