Incipient speciation in Iberian and north African wall lizards (*Podarcis*): a multilocus approach

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The systematics of Iberian and North African wall lizards (*Podarcis*) has been a long-standing matter of debate due to complex variation in morphological patterns. These lizards have been recently suggested to be a species complex by mtDNA phylogenetic analyses. In this study, we increased mtDNA sequencing up to 2425bp in order to obtain more accurate estimates of phylogenetic relationships and compared this to nuclear variation, analysed by protein electrophoresis (10 polymorphic loci) and sequencing of two introns. Despite the broad agreement of allozyme data with mtDNA in defining evolutionary units, variation in nuclear introns is characterised by incomplete lineage sorting of ancestral polymorphism, probably coupled with present gene flow, suggesting that the various forms of *Podarcis* are only incipient species and reproductive isolation may have not been completely achieved. In order to test this hypothesis we selected as case-study a contact zone between two parapatric forms to evaluate the magnitude of gene flow. The study of mtDNA and a battery of 15 nuclear loci, analysed through recent model-based individual clustering methods, revealed that although there are unequivocal evidences of hybridization, this is a clearly bimodal hybrid zone, suggesting the existence of barriers against gene flow and an incipient stage of reproductive isolation.

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