Concordance of morphological variation and chromosomal races in Liolaemus monticola (Tropiduridae) separated by riverine barriers in the Andes

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Intra? and interpopulation morphological variation in 14 meristic characters was assessed in twelve previously karyotyped population samples of Liolaemus monticola monticola, representing two chromosomal races: the Southern race (2 n = 34) and the Northern race (2 n = 38 to 40), plus a zone of secondary contact where both races and hybrids between them occur. The phenetic analyses were performed to investigate the effect of chromosomal changes and riverine barriers to gene flow on the differentiation of these lizard populations. The morphological similarities of populations determined by multivariate analysis coincides exactly with the separation into chromosomal races, and thus confirms the riverine barriers. The first principal component clearly separates the two chromosome races, based on at least 7 characters, with the zone of secondary contact in an intermediate position. Within races, there was not a close correspondence between phenetic similarity and geographic location. There