

# Systematics and evolutionary relationships of the mountain lizard *Liolaemus monticola* (Liolaemini): How morphological and molecular evidence contributes to reveal hidden species diversity

Torres-Pérez, Fernando

Méndez, Marco A.

Benavides, Edgar

Moreno, Rodrigo A.

Lamborot, Madeleine

Palma, R. Eduardo

Ortiz, Juan Carlos

The delimitation of species is a major issue in systematic biology and has been a re-emerging discipline in the last decade. A number of studies have shown that the use of multiple data sets is critical for the identification of cryptic species, particularly in groups with complex evolutionary histories. *Liolaemus monticola* is a montane lizard species distributed in central Chile (32°-42°S), with four described subspecies in a latitudinal gradient from north to south: *L. m. monticola*, *L. m. chillanensis*, *L. monticola* ssp. and *L. m. villaricensis*. In order to test the systematic status and phylogenetic relationships of the taxa included in the *L. monticola* group, we analysed morphological (morphometric and meristic) and molecular (allozyme and mitochondrial DNA) data sets. The results of the morphological analyses showed that meristic variables correctly assigned individuals with higher accuracy than did morphometric characters. The results of the analyses of allozyme data revealed eigh