



Debating Liolaemidae diversity and classification, and a bit more: A response to Lobo *et al.*

DANIEL PINCHEIRA-DONOSO

Centre for Ecology and Conservation, College of Life & Environmental Sciences, University of Exeter, Streatham Campus, Exeter, Devon, UK. E-mail: D.PincheiraDonoso@exeter.ac.uk

Abstract

The Liolaemidae lizard evolutionary radiation has resulted from active spatial expansions into an extensive territorial area accompanied by active events of cladogenesis that have produced high levels of taxonomic and ecological diversity, especially within the *Liolaemus* genus. As a result, these lizards have been for decades the subject of intense taxonomic and systematic debates. Here, I provide an analysis of a recent paper where discussions on Liolaemidae diversity and classification involved biased and arbitrary interpretations and observations of two previously published monographs.

Key words: Liolaemidae, *Liolaemus*, *Phymaturus*, lizards

Introduction

Lizards of the Liolaemidae family have undergone a remarkable evolutionary radiation that has resulted in continuous debate primarily about the taxonomic richness and phylogenetic relationships of two of the three known liolaemid genera, *Liolaemus* and *Phymaturus* (the third being the monotypic *Ctenoblepharys*). In general, such discussions have only been aimed at advancing the study of these lizards, and as would be expected, authors that have made the most significant contributions (e.g. Laurent, 1983; Laurent, 1985; Etheridge, 1995) have concentrated on unsolved problems or on the development of novel perspectives. A recent discussion by Lobo *et al.* (2010) has not followed any of these latter aims, as it has mostly concentrated on presenting viewpoints extensively known by current liolaemid scholars, and has failed to create a legitimate environment of discussion as it is defeated by an often aggressive and offensive tone, and many biased and uninformed conclusions. This discussion focused exclusively on two liolaemid monographs published by myself and co-authors (Pincheira-Donoso & Núñez, 2005; Pincheira-Donoso *et al.*, 2008c).

Several general patterns can be extracted from Lobo *et al.*, although I will only summarize the most important ones. Firstly, the primary aim of Lobo *et al.*'s work is the discussion of the classification presented in our first work (Pincheira-Donoso & Núñez, 2005), which, by the way, is the result of my undergraduate work, and not my graduate thesis as suggested by these authors. Secondly, most of the aggressive commentaries appear to result from myself or co-authors simply having opinions and views about liolaemid problems that essentially differ from Lobo's (i.e. the senior author) previous work. Third, and more serious, there is a dangerously clear attempt of these authors to put several of our conclusions and views completely out of context, sometimes involving severe manipulations and omissions of information. This latter discussion is presented in a separated section. Below I discuss more specifically each of these points, while I have decided to leave out of this response other criticisms, such as their critiques that the limbs of lizards in our pictures are out of focus, critiques to our use of the term 'ovoviviparity' as they regard this term as 'rejected' (although it is extensively employed today in studies published in prominent international journals), or that when we present a picture of an Argentinean specimen of *L. fitzingerii* to mention the existence of this species in Chile, they criticize that the correct picture would be one of a Chilean animal (and not the Argentinean), and when we presented a picture of a Chilean specimen of the Chilean population known as *L. rothi* (later described as a new species), they criticize us because they think we should have provided a