



## Systematics of the *Podarcis hispanicus*-complex (Sauria, Lacertidae) II: the valid name of the north-eastern Spanish form

JULIEN P. RENOULT<sup>1</sup>, PHILIPPE GENIEZ<sup>2</sup>, PAUL BACQUET<sup>1</sup>, CLAUDE P. GUILLAUME<sup>2</sup>,  
& PIERRE-ANDRE CROCHET<sup>1,3</sup>

<sup>1</sup>CNRS-UMR 5175, Centre d'Ecologie Fonctionnelle et Evolutive, 1919 route de Mende, 34293 Montpellier cedex 5, France

<sup>2</sup>EPHE-UMR 5175, Centre d'Ecologie Fonctionnelle et Evolutive, 1919 route de Mende, 34293 Montpellier cedex 5, France

<sup>3</sup>E-mail: pierre-andre.crochet@cefe.cnrs.fr

### Abstract

Recent genetic works have suggested that the Iberian wall lizard *Podarcis hispanicus* (Steindachner, 1870) sensu lato is in fact a species complex. Several forms have already been elevated to species rank, including the north-eastern Spanish form alternatively named *Podarcis atratus* (Boscá, 1916) or *P. liolepis* (Boulenger, 1905) in different works. However, a recent study has demonstrated that the province of Valencia, where most individuals of the type series of *Lacerta muralis* var. *liolepis* Boulenger, 1905 originate from, is inhabited by populations that are conspecific with the north-eastern Spanish form. Consequently the nomen *liolepis* has precedence over *atratus* to designate the north-eastern species of the *P. hispanicus* complex which should thus bear the name *Podarcis liolepis*.

**Key words:** nomenclature, Iberian Wall Lizard, *Podarcis liolepis*, Spain, Reptilia

### Introduction

Recent genetic and morphological data indicate that *Podarcis hispanicus* (Steindachner, 1870) as traditionally understood (see for example Pérez Mellado 1986, Pérez Mellado and Gallindo Villardon 1986, Pleguezuelos *et al.* 2003) is actually composed of several genetically distinct lineages, most of which deserve a specific rank (Oliverio *et al.* 2000; Sá-Sousa 2000; Harris and Sá-Sousa 2001, 2002; Harris *et al.* 2002a, 2002b; Busack *et al.* 2005; Pinho *et al.* 2006; Pinho *et al.* 2007, Carretero 2008, Pinho *et al.* 2008, Renoult *et al.* 2009). Few formal systematic changes have been proposed to date, however.

The insular populations from the Columbretes islands have been the first to be formally raised to species rank under the binomen *Podarcis atratus* (Boscá, 1916) (as *Podarcis atrata*, but see Böhme and Köhler 2005 for the gender of *Podarcis*) on the basis of their large amount of genetic divergence (mitochondrial DNA sequences) compared to specimens from the mainland (Castilla *et al.* 1998a, b). Later, the North African and South Iberian taxon *vaucheri* (Boulenger, 1905) has been raised to species rank by Oliverio *et al.* (2000) and Busack *et al.* (2005). In the same publication, Busack *et al.* (2005) proposed to treat the north-eastern Spanish form (= "*P. hispanica* morphotype 3" in Pinho *et al.* 2006, TYP3 hereafter) as a distinct species under the nomen *Podarcis atratus*, arguing that the Columbretes populations are conspecific with the mainland specimens of TYP3.

TYP3 corresponds to an evolutionary unit that has been genetically characterised based on specimens from Barcelona (Harris and Sá-Sousa 2002; Pinho *et al.* 2003), Burgos and Medinaceli (Castilla y León) (Pinho *et al.* 2006), Girona, Tarragona and the central southern Pyrenees (Harris and Sá-Sousa 2002), Andorra (Harris *et al.* 2002a) and southern France (unpublished data), and corresponds to the mitochondrial lineage named "*Podarcis hispanica* type 3" in Pinho *et al.* (2006) (called "Type 3" hereafter) and "Liolepis" in Renoult *et al.* (2009). Further south, in the town of Valencia and surroundings, *Podarcis* populations are characterised by a different mitochondrial lineage, named "*Podarcis hispanica* sensu stricto" in Pinho *et al.*