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On the Iberian endemic subgenus *Lathromene* Koch (Coleoptera: Staphylinidae: Paederinae): description of the first hypogean *Domene* Fauvel, 1872 from Portugal

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Abstract

Domene (Lathromene) lusitanica n. sp. from Sicó karstic massif in Portugal is described and compared with other species of the subgenus, representing the first hypogean rove beetle from mainland Portugal. A comparison between *Domene lusitanica* n. sp. and the other species of the Iberian endemic subgenus *Lathromene* is made using diagnostic characters. An identification key for the males of *Lathromene* species is presented, and biogeographical and ecological comments are also included. The species of *Domene* known from the Iberian Peninsula are listed and their distributions are mapped.

Key words: Rove-beetle, new species, troglobiont, subterranean, cave, karst, Iberian Peninsula

Introduction

The western part of the Mediterranean region including the Iberian Peninsula, Morocco and Macaronesia (Canary Islands and Madeira) is a subterranean biodiversity hotspot, which harbours 76% of the world's hypogean staphylinids, excluding the subfamily Pselaphinae (Hlavac *et al.* 2006). Recently, the subterranean spaces of karstic areas are providing abundant new species of Coleoptera (Reboleira *et al.* 2009; Reboleira *et al.* 2010), in the Estremenho and Montejunto karstic massifs. Hypogean species of Staphylinidae are currently unknown in mainland Portugal and only trogloxene or troglophile rove-beetles have been previously recorded, usually associated with bat guano (Jeannel 1941; Coiffait 1963; Reboleira *et al.* 2009).

The genus *Domene* Fauvel, 1872 comprises nearly 50 species in the Palaearctic region (Assing 2007; Feldman & Hernando 2005; Hernando 2007; Smetana 2004). Although not all authors agree with the proposed infrageneric taxonomy (Assing 2007), the genus is divided into six subgenera: *Domene* s. str. with 18 species distributed from Greece to the Iberian Peninsula; *Macromene* Coiffait, 1982 with 10 species from Oriental Asia; the monospecific subgenus *Neodomene* Blackwelderm, 1939 known from India; *Lathromene* Koch, 1938 with 9 species from the western portion of the Iberian Peninsula; *Spelaeomene* Español, 1977 comprising 4 hypogean species from Morocco; and *Canariomene* Oromí & Hernández 1986 with 5 species from the Canary Islands.

The Iberian species of *Domene* are included in two subgenera: *Domene* s. str. and *Lathromene*, which are easily recognized by the general shape of the aedeagus, particularly by the development of the ventral blade (Coiffait 1982). These species are either endogean or closely associated with subterranean environments (Coiffait 1954; Coiffait 1982; Feldmann 2000; Feldmann & Hernando 2005; Hernando & Baena 2006; Outerelo 1985; Outerelo et al. 2000; Salgado & Outerelo 2000; Wunderle 1992) (Table 1), the latter are mostly restricted in distribution and inhabit caves or superficial underground compartments (MSS as described by Juberthie *et al.* 1980).

Exploration of the karstic regions of Portugal has resulted in the discovery of a new species of *Domene*. This species is included in the subgenus *Lahtromene*, recognized by a combination of characters given in Coiffait

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