

# A new species of the genus *Palaospeum* Boeters, 1999 (Gastropoda: Moitessieriidae) from Spain

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A new species of the genus *Palaospeum*, collected in Castelló province (Spain), is here described, increasing to 7 the number of the known species of this genus

*Key words:* Gastropoda; Moitessieriidae; *Palaospeum*; new species.

## Una espècie nova del gènere *Palaospeum* Boeters, 1999 (Gastropoda: Moitessieriidae) d'Espanya.

Es descriu una espècie nova del gènere *Palaospeum* recollida a la província de Castelló (Espanya), elevant a 7 el número de les espècies conegudes d'aquest gènere.

*Mots clau:* Gastropoda; Moitessieriidae; *Palaospeum*; espècie nova.

## Introduction

The family Moitessieriidae includes species of small size and stygobiotic habitat. In Spain, this family is represented by five genera: *Moitessieria*, *Baldufa*, *Spiralix*, *Sardopaladilhia* and *Palaospeum*. (Boeters, 2003; Rolán & Martínez Ortí, 2003; Alba et al., 2010, 2011; Corbella et al 2014; Quiñonero-Salgado et al., 2017).

The genus *Palaospeum* was created by Boeters (1999), and *Paladilhia bessonni* Bernasconi, 1999 was designated the type species of the genus (see Bernasconi, 1999, Boeters, 1999). At present, the genus is distributed in France and Spain (Bernasconi, 1999; Boeters, 1999; Boeters & Bertrand, 2001; Boeters 2003; Girardi, 2009). Only one species and one subspecies are known in Spain: *Palaospeum hispanicum hispanicum* Boeters, 2003 in Aragón Community, and *Palaospeum hispanicum ondaense* Boeters, 2003 in the Valencian Community.

In this paper a new species of this genus, collected in Castelló province (Valencian Community), is described.

## Material and methods

The studied specimens were collected in sediments from the Fuente del Hambre, in the town of Segorbe,

Castelló province (E Spain). They were collected by the first of the authors in the years 2008-2009. Sediment was sorted in the field by employing manual sieves of 2 mm, 1 mm and 0.5 mm. Shells were subsequently, separated under a stereo-microscope for their determination. They were cleaned with water with the help of a small brush.

## Abbreviations

- MNCN: Museo Nacional de Ciencias Naturales, Madrid.
- SEM: Scanning Electron Microscopy.
- CSQS: Collection Sergio Quiñonero-Salgado.
- s: shell.

## Results

### Systematics

Family: Moitessieriidae Bourguignat, 1863

Genus *Palaospeum* Boeters, 1999

Type species: *Paladilhia bessonni* Bernasconi, 1999

***Palaospeum lopezsoriano* sp. nov.**

Figures 1 & 2

**Type material:** Holotype in MNCN number 15.05/200007H; 2 s 15.05.200007; 7 s CSQS.

**Type locality:** Fuente del Hambre, Segorbe

[30SYK11], 306 m, Castelló province, Valencian Community.

**Etymology:** The specific name is after Dr. Joaquín López Soriano, biologist and President of the Catalan Association of Malacology.

**Description:** Shell small (< 3 mm), conical, somewhat elevated, translucent, a little shiny in freshly collected shells. Protoconch smooth with a badly defined end in the teleoconch, and a diameter of about 350 µm. Teleoconch with about 4 whorls, whose diameter increases with growth, rather convex and with a well defined suture between them. The last whorl represents about 65% of the total height of the shell. Ovoid aperture with an oblique axis, peristome simple, somewhat everted and with a minimum contact with the previous whorl; columella a little inclined and very slightly curved. There is no observable microsculpture, neither in the protoconch nor in the teleoconch, except for very tiny and almost orthocline growth lines

**Dimensions:** the holotype measures 2.7 mm in height x 1.45 mm in diameter. (See Table 1 or further measurements).

**Habitat:** Stygobiotic.

**Distribution:** Only known from the type locality.

**Remarks:** With the new species here described, the number of known taxa in the genus is raised to seven, three of them from Spain.

*Palaospeum lopezsoriano* spec. nov. may be differentiated from the type species of the genus (*P.*

*bessoni*) because the new species is wider and shorter in a similar number of whorls, the suture is less inclined, and the umbilicus is wider. Under high magnification, no microsculpture can be seen, while *P. bessoni* shows a microsculpture of a rough surface with depressions in the protoconch, and in the teleoconch it presents a very fine spiral sculpture of numerous irregular and variable dense fillets.

*Palaospeum hispanicum hispanicum* Boeters, 2003 and *P. hispanicum odaense* Boeters, 2003 are instead very narrow and elongated, having more whorls for the same height.

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N=10	Min	Mx	AV	SD	Coef. var.
L	2.07	2.67	2.30	0.171	0.074
D	1.13	1.50	1.31	0.112	0.085
Ha	0.77	1.08	0.93	0.106	0.115
Wa	0.54	0.85	0.70	0.079	0.112

**TABLE 1.** Morphometry of the shell of *Palaospeum lopezsoriano* sp. nov. Min: minimum. Mx: maximum. AV: average. SD: standard deviation. Coef. var.: variance coefficient. L: length. D: diameter. Ha: aperture height. Wa: aperture width.

**TAULA 1.** Morfometria de la conquilla de *Palaospeum lopezsoriano* sp. nov. Min: mínim. Mx: màxim. AV: mitjana. SD: desviació estàndard. Coef. var.: coeficient de variació. L: longitud. D: diàmetre. Ha: altura obertura. Wa: amplada obertura.

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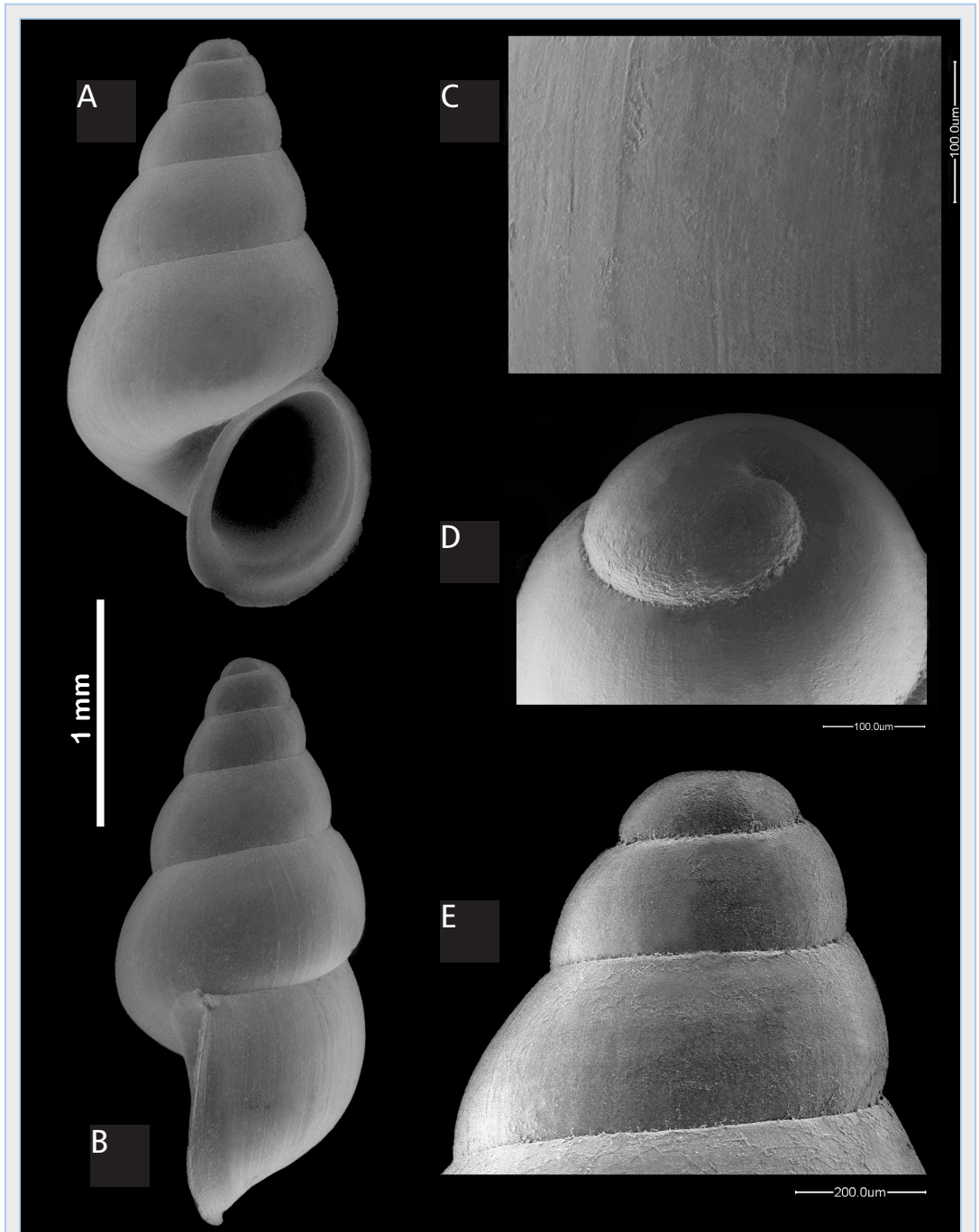


FIGURE 1. A-B: holotype, 2.7 mm (MZB); C: teleoconch detail; D: protoconch detail; E: detail of the first whorls.

FIGURA 1. A-B: holotip, 2.7 mm (MZB); C: detall teleoconquilla; D: detall de la protoconquilla; E: detall de les primeres voltes.



FIGURE 2. *Palaospeum lopezsoriano* sp. nov. from Fuente del Hambre (type locality). Scale 1 mm.

FIGURA 2. *Palaospeum lopezsoriano* sp. nov. procedents de la font del Hambre (localitat tipus). Escala 1 mm.