

Revision of the genus *Spaniophaeus* REITTER, 1875 (Coleoptera: Cryptophagidae)

J.C. OTERO & J.A. DIAZ PAZOS

Abstract

The three species of *Spaniophaeus* REITTER known from the Palaearctic region are revised. Based on the examination of type specimens, the authors redescribe 3 species: *Spaniophaeus lapidarius* (FAIRMAIRE), *S. laticollis* (MILLER) and *S. caucasicus* REITTER. The species are defined according to their external features and the shape of their aedeagus. A key to the species is presented.

Key words: Coleoptera, Cryptophagidae, *Spaniophaeus*, taxonomy, Palaearctic

Introduction

The Palaearctic genus *Spaniophaeus* REITTER currently contains three species which occur only in Europe. These 3 species are redescribed in this paper: *S. lapidarius* (FAIRMAIRE), (type species by monotypy), *S. laticollis* (MILLER) and *S. caucasicus* REITTER. The articles by MILLER (1858) and REITTER (1875, 1891) include descriptions and keys to the three taxa. However, the criteria for separation were based on insufficient data related to aspects of their external morphology. This circumstance would appear to justify the updating of this genus. Therefore, using the study of the type species as a basis, we have been able to redescribe these taxa.

Abbreviations: (MHNP) Muséum national d'Histoire naturelle, Paris; (MNCN) Museo Nacional de Ciencias Naturales, Madrid; (MTO) Museo de Torino; (MZRCCL) Museo Zoologia, Roma, Coll. Luigioni; (NMW) Naturhistorisches Museum, Wien; (L) length; (WL) width/length ratio

Spaniophaeus lapidarius (FAIRMAIRE, 1861)

Cryptophagus lapidarius FAIRMAIRE, 1861. Ann.Soc.ent.Fr., (4) I: 648

Cryptophagus amplicollis Ch. BRISOUT, 1866. Ann.Soc.ent.Fr., (4) VI: 369

Length: 2.2 - 2.5 mm. Body oval, slightly convex. Coloration ferruginous red, head and pronotum a little darker. Pubescence very long and dense ($L = 75 \mu$), yellow in colour.

Head: eyes small (Fig. 4) ($L = 0.120$ mm) with ocular facets measuring 16μ in diameter, larger in size than the punctures on the head ($\phi = 12 - 16 \mu$) (Fig. 5). Antennae (Fig. 3) not reaching the rear edge of the pronotum. Short 1st antennomere slightly wider than the following ones; the 2nd measures the same in width as in length and is $2/5$ shorter than the next one; the 3rd and 5th are same, being $1/7$ longer than the 6th.

Pronotum transverse (Figs. 1, 2) ($WL = 1.7$); $5/8$ wider at the base than at the apex; anterior edge low-cut. Anterior callosities $1/7$ the length of the side. Side edges slightly rounded and finely rimmed; rear edge slightly ridged, with a marked depression at the front. Pronotal puncturation (Fig. 6) ($\phi = 16 \mu$) not as strongly imprinted as on the head and more dispersed, the punctures separated by a distance 1.5 times the size of their diameter.

Elytra 2.5 times longer than the pronotum, oval-shaped and 1.2 times wider at the basal third than in the apical area. A very fine sutural stria, darker at the base. Elytral puncturation very

fine, scattered (Fig. 7), the punctures are separated by a distance 3 times the size of their diameter ($\phi = 8 \mu$). Wings developed.

Aedeagus (Figs. 8, 9).

The material we examined is from the central area of the Iberian Peninsula and is deposited in the MNCN.

Distribution: Central Spain and southern France (REITTER 1891).

Spaniophaeus laticollis (MILLER, 1858)

Cryptophagus laticollis MILLER, 1858. Wr. Ent. Monatschr.: 99

Length: 2.5 mm. Body oval, slightly convex; coloration ferruginous red. Pubescence short and dense ($L = 40$ to 50μ).

Head: small eyes (Fig. 13) ($L = 0.125$ mm) with ocular facets measuring 20μ in diameter, larger than the punctures on the head ($\phi = 16 \mu$) (Fig. 14). The antennae (Fig. 12) do not reach the base of the pronotum. The 3rd antennomere is $2/3$ longer than the 2nd; the 4th and 5th are the same size.

Pronotum transverse (Figs. 10, 11) ($WL = 1.8$); as wide at the base as at apex, sides uniformly curved; rear edge ridged, a marked transverse depression at the front. Anterior callosities $1/7$ the length of the side. Pronotal puncturation finer (Fig. 15) ($\phi = 8 \mu$) than on the head.

Elytra twice as long as the pronotum. Elytral puncturation (Fig. 16) as fine as on the pronotum. Wings developed.

Aedeagus (Figs. 17, 18).

Material examined: the collection of the NMW contains five specimens under name of *S. laticollis*. One of these belongs to the type series and is labelled as follows: "2/11 1855 Dr. Heller....". This specimen, a female, is herewith designated as lectotype. The other specimens in the same collection there are 1 ♂ and 1 ♀, Krim X.1882, leg. Reitter and 2 ♂♂, without locality, leg. Retowski.

Distribution: Rumania (MILLER 1858), Crimea, Caucasus (REITTER 1891).

Spaniophaeus caucasicus REITTER, 1888

Spaniophaeus caucasicus REITTER, 1888. Ent. Zeitt., VII: 105

Length: 2.1 - 2.3 mm. Body oval, slightly convex. Coloration ferruginous red. Pubescence long ($L = 35 \mu$), some forms exhibit fine, limp hairs interspersed between longer stiff hairs.

Head: eyes small, but prominent (Fig. 22) ($L = 0.125$ mm), with ocular facets ($\phi = 24 \mu$) larger than the punctures ($\phi = 16 \mu$) on the head (Fig. 23). Antennae short (Fig. 21), not reaching the rear edge of the pronotum. The 2nd and 3rd antennomere are the same size.

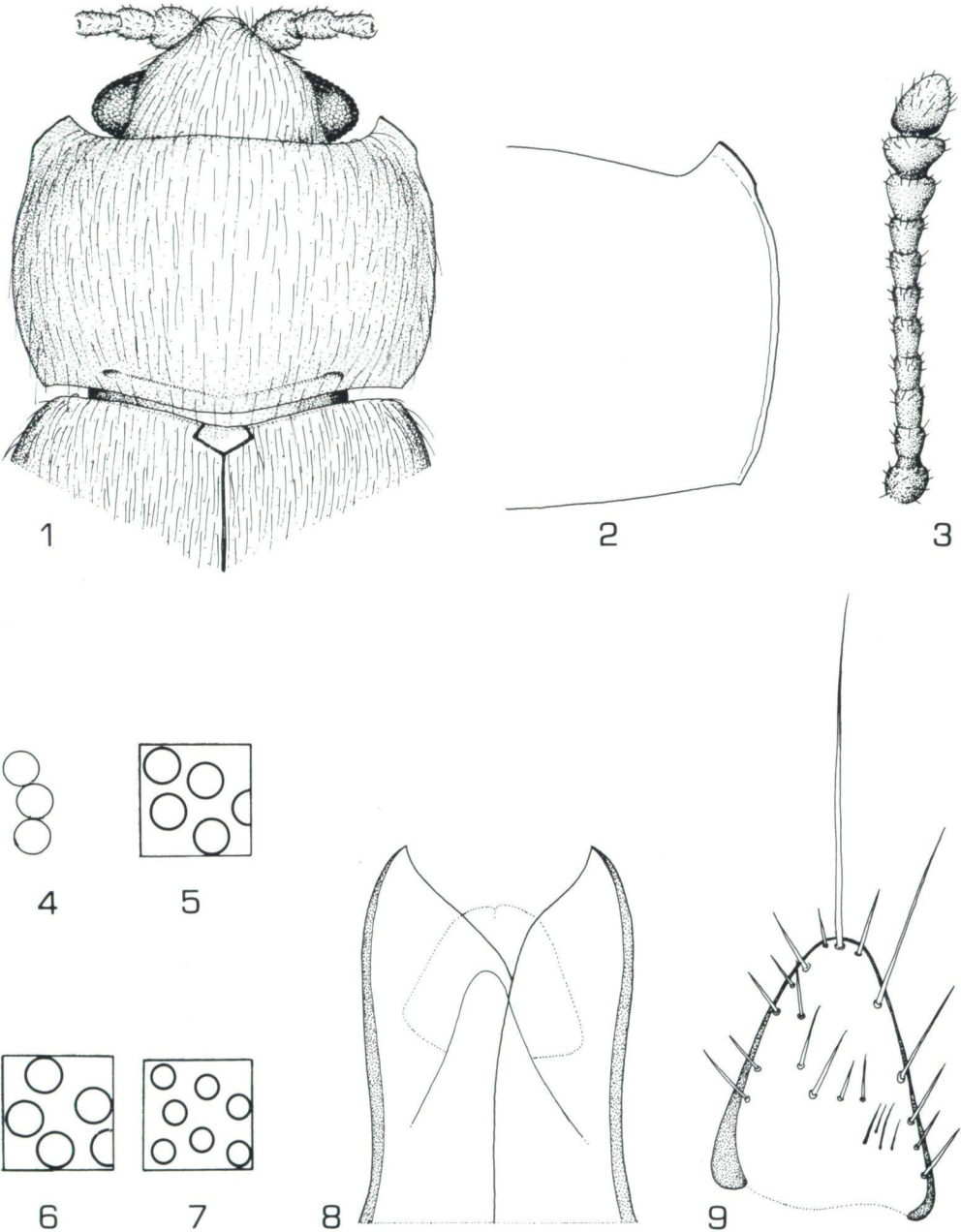
Pronotum transverse (Figs. 19, 20) ($WL = 1.7$) $5/6$ wider at the base than at the apex. Anterior edge low-cut. Side edges concave in the anterior zone and convex at the basal area; they are slightly crenulated and provided with long setae. Small anterior callosities ($1/10$ the length of the side). Rear edge ridged; at the front a marked transverse depression. Pronotal puncturation (Fig. 24) ($\phi = 8 \mu$).

Elytra: 2.5 times longer than the pronotum. Oval, wider in the basal third. Elytral puncturation (Fig. 25) finer, more scattered ($\phi = 2 \mu$) than on the head. Metathoracic wings absent.

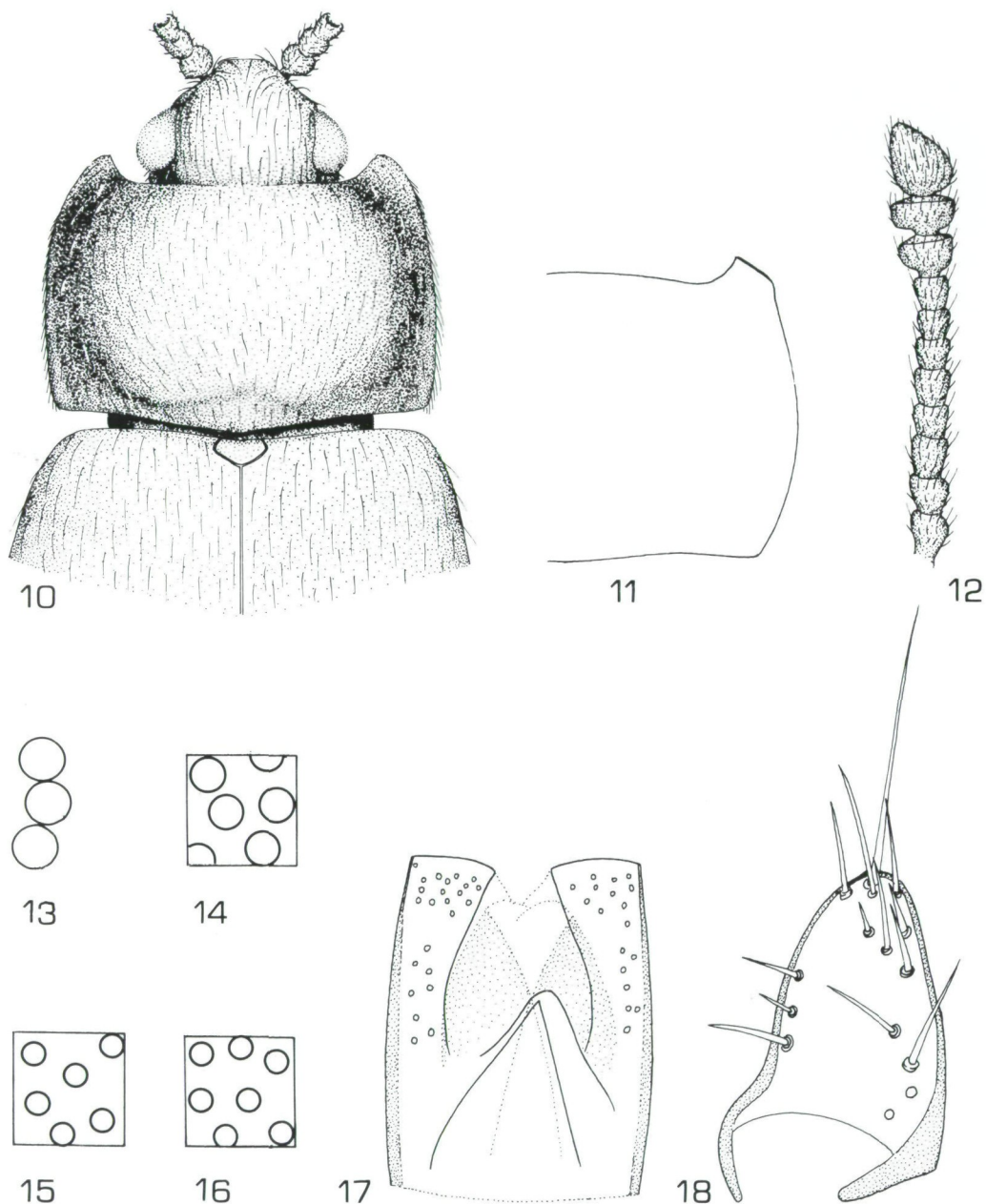
Aedeagus (Fig. 26, 27).

Material examined: 4 syntypes (leg. Leder) (MHNP) "Helenendorf, Elisabethpol" [= Kirovabad, Azerbaidzhan], Caucasus; 9 ex. Elisabethpol [= Kirovabad, Azerbaidzhan], Caucasus (7 in MTO, 2 in MZRCL).

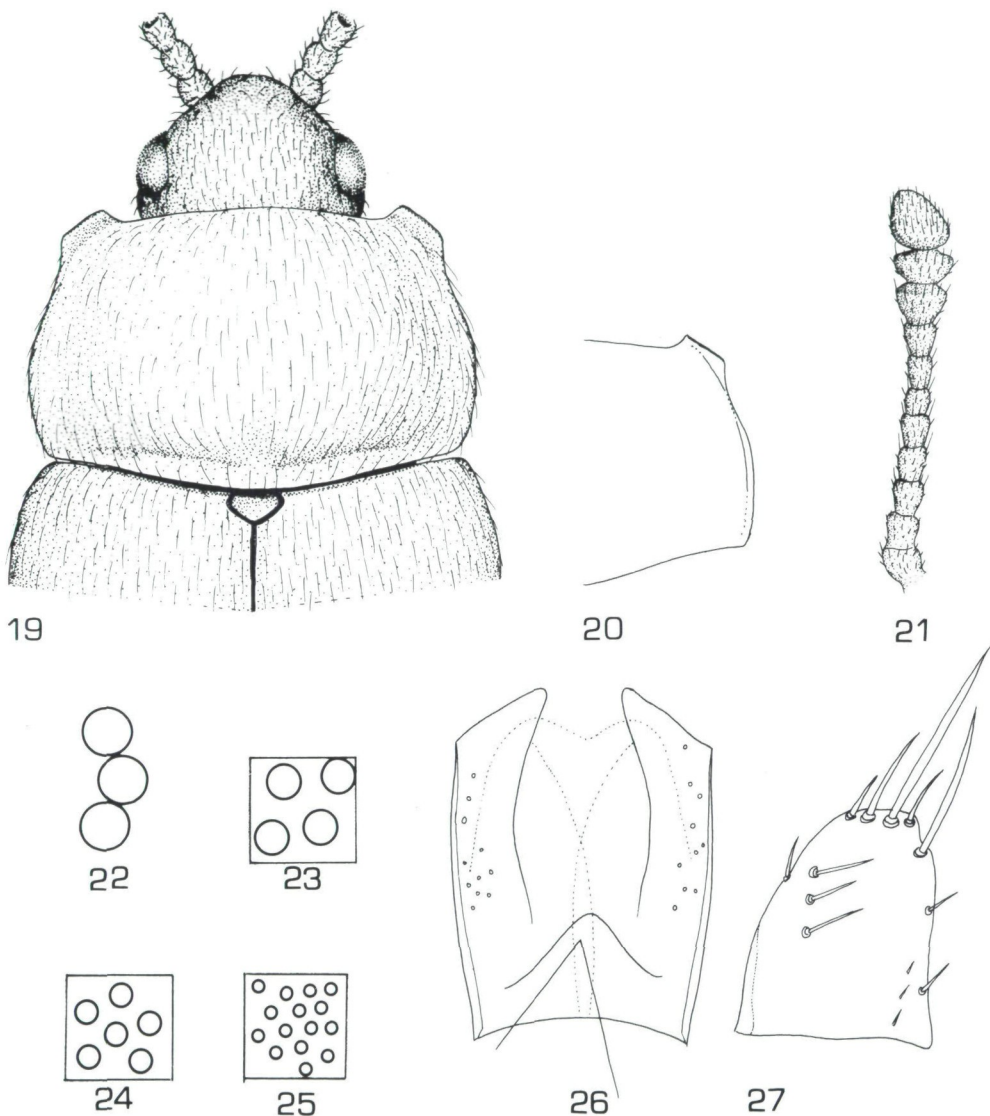
Distribution: So far known only from the Caucasus.



Figs. 1 - 9: *Spaniophaeus lapidarius*, 1) general view, 2) pronotum, 3) antenna, 4) ocular facets, 5 - 7) punctuation of head, pronotum and elytra, 8 - 9) dorsal view of aedeagus and paramere.



Figs. 10 - 18: *Spaniophaeus laticollis*, 10) general view, 11) pronotum, 12) antenna, 13) ocular facets, 14 - 16) punctuation of head, pronotum and elytra, 17 - 18) dorsal view of aedeagus and paramere.



Figs. 19 - 27: *Spaniophaeus caucasicus*, 19) general view, 20) pronotum, 21) antenna, 22) ocular facets, 23 - 25) punctuation of head, pronotum and elytra, 26 - 27) dorsal view of aedeagus and paramere.

Key to the species of the genus *Spaniophaeus*

- 1 Sides of the pronotum uniformly curved (Figs. 1, 2, 10, 11). Metathoracic wings developed 2
- Sides of the pronotum concave at the anterior half and convex at the rear (Figs. 19, 20); slightly crenulated, with long setae. Metathoracic wings absent. Aedeagus (Figs. 26, 27). Length: 2.1 - 2.3 mm *caucasicus*
- 2 Pubescence long, dense ($L = 75 \mu$). Pronotum (Figs. 1, 2) $\frac{5}{8}$ wider at base than at apex. Aedeagus (Figs. 8, 9). Length: 2.2 - 2.4 mm *lapidarius*

- Pubescence short, limp ($L = 40 - 50 \mu$). Pronotum (Figs. 10, 11) as wide at base as at apex.
Aedeagus (Figs. 17, 18). Length: 2.5 mm..... *laticollis*

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Zusammenfassung

Die Gattung *Spaniophaeus* REITTER wird revidiert. Basierend auf der Untersuchung von Typenmaterial redescribieren die Autoren 3 Arten: *Spaniophaeus lapidarius* (FAIRMAIRE), *S. laticollis* (MILLER) und *S. caucasicus* REITTER. Die Arten sind anhand äußerer Merkmale und anhand der Genitalmorphologie zu unterscheiden. Ein Bestimmungsschlüssel ist inkludiert.

Resumen

Los autores revisan las tres especies paleárticas de *Spaniophaeus* REITTER. El examen de las especies tipo, nos ha permitido redescribir 3 taxa: *Spaniophaeus lapidarius* (FAIRMAIRE), *S. laticollis* (MILLER) y *S. caucasicus* REITTER. Las especies se definen por su morfología externa y el edeago. Se presenta una clave de las especies paleárticas.

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J.C. OTERO & J.A. DIAZ PAZOS

Departamento de Biología Animal, Facultad de Biología, E - 15706 Santiago de Compostela, Spain

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Autor(en)/Author(s): Otero Jose Carlos, Diaz Pazos J.A.

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