



Revision of the *Lachnaia tristigma* (Lacordaire, 1848) species-group (Coleoptera: Chrysomelidae) and description of a new species

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Abstract

The group of species of *Lachnaia tristigma* (Lacordaire, 1848) is revised. Previously known taxa and diagnostic characters are reassessed, yielding clear limits for species based on male and female genitalia and not on variable and overlapping external characters. A diagnosis along with figures of the median lobe of aedeagus, endophallus and spermatheca are presented for the previously known species, *L. pseudobarathraea* Daniel & Daniel, 1898 and *L. tristigma*, as well as the newly described *L. gallaeca* **n. sp.**

Key words: Chrysomelidae, *Lachnaia*, new species, Iberian peninsula, identification key

Introduction

The genus *Lachnaia* Dejean, 1836 is consisted of two species from the Afrotropical region (Medveded, 1993), and 20 species from the western Palaearctic region (Warchalowski, 2003) which are mostly distributed in the western Mediterranean region. The genus is well characterized by the following combination of characters: pronotum covered with conspicuous setae (excepting *L. puncticollis* Chevrolat), posterior angles of pronotum not elevated and anterior coxae contiguous. The Iberian species were revised by Codina Padilla (1958) and more recently by Petitpierre (2000). Eight Iberian species are currently recognized, including two close taxa, *Lachnaia tristigma* (Lacordaire) and *L. pseudobarathraea* Daniel & Daniel, which we consider here to compose the *L. tristigma* species-group. This group can be distinguished from all other species of *Lachnaia* by the following combination of characters: antennae toothed from the fourth joint to the apex; pronotum covered with sparse leaning setae; first tarsomere of anterior legs similar or slightly longer than second tarsomere; anterior margin of elytra keeled; anterior black dot of elytra located over the humeral callus.

Among the beetles collected during the samplings carried out for the study of the Chrysomelidae from Galicia (NW Spain) (Baselga & Novoa, 2006) were some specimens attributed to *L. tristigma* but with several differences in male and female genitalia, similar in magnitude to those between *L. tristigma* and *L. pseudobarathraea*. However, the lack of external diagnostic characters and the doubts expressed by several authors (Warchalowski, 2003) about the status of the two species already described prevented the description of a new taxon without a comprehensive study of the variability of the species group throughout the Iberian peninsula. For this reason, a detailed revision of the collection of the Museo Nacional de Ciencias Naturales (Madrid, Spain) was accomplished, testing if the observed differences in genital characters are consistent and robust for delimiting taxa or, on the contrary, if these differences are continuous morphological clines or intraspecific variation without geographic pattern. Our search has yielded three discrete taxonomic entities clearly delimited by male and female genital characters, which are consistent between each other and stable within their

geographical ranges. Therefore, the aim of this paper is to define adequately the two previously known species as well as to describe a new taxon from the northwest of the Iberian peninsula.

Material and methods

This study is mainly based on the collection of the Museo Nacional de Ciencias Naturales, Madrid, Spain (MNCN), where all the specimens cited in this paper are deposited, unless otherwise indicated (Baselga personal collection, BASC). The material examined is detailed for each species, providing, where available, locality (beginning with toponyms referring to wider areas, followed by mores restricted terms), UTM coordinates [in brackets], date of collection, number of males and females, and collector (in parentheses).

Species are arranged alphabetically. A detailed description is provided for the new species, but only diagnoses are provided for previously known taxa. Male and female genitalia were dissected and thereafter mounted together with specimens using dimethyl hydantoin formaldehyde resin (DMHF). Due to the fragility and huge longitude of some spermathecal ducts, the dissection of female genitalia was performed in a two-step process in order to avoid the destruction of the spermathecal structures. After relaxing the specimens using boiling water, abdomens were separated and the complete bulk of internal organs extracted. This mass was cleared with warm 10% KOH. In a second step the spermathecae were separated from the surrounding tissues and again cleared with warm 10% KOH. Drawings were traced using CorelDraw 11 software, from images captured with a Nikon Coolpix 4500 digital camera attached to a Zeiss 475057 stereomicroscope.

Lachnaia gallaeca Baselga & Ruiz-García, new species (Figs. 1–2, 9, 17)

Lachnaia tristigma: Baselga & Novoa, 2006

Type material: HOLOTYPE MALE: SPAIN: Lugo, Sierra de Ancares, Liber [29TPH5648], 23 May 1998 (A. Baselga). Holotype is deposited in the Museo Nacional de Ciencias Naturales, Madrid, Spain (Type Catalogue No. 9918). PARATYPES: SPAIN: Lugo, Sierra de Ancares, Catro Ventos [29TPH6244], 5 July 1998, 1 female (Baselga, MNCN); Lugo, Sierra de Ancares, Liber, same data as holotype, 2 males (Baselga, BASC); Lugo, O Corgo, Manán [29TPH2355], 16 May 1993, 1 female (G. Cerviño, BASC); Ourense, Baltar, San Martiño [29TPG0240], 22 May 1999, 7 males and 3 females (Baselga, BASC); Ourense, Manzaneda, Prada [29TPG4479], 20 June 2003, 1 male and 3 females; Ourense, Os Blancos, Nocado [29TPG0749], 22 May 1999, 3 males and 1 female (Baselga, BASC); Ourense, Piñor [29TNH8006], 12 June 1996, 3 females (Baselga, BASC); Ourense, Vilariño de Conso, Pradoalbar [29TPG4071], 8 July 2003, 2 females (Baselga, BASC); Ourense, Vilariño de Conso, San Cristobo [29TPG5072], 23 May 2003, 3 males and 2 females (Baselga, BASC).

Etymology. The specific epithet is the adjective *gallaecus*, the Latin demonym for the Roman province of Gallaecia, the northwestern region of the Iberian peninsula currently named Galicia.

Description. Length = 6.5–9.0 mm (n = 33). Body strongly convex, about 2.2 times longer than wide. Colour black with blue metallic shimmer, with exception of elytra which are orange with one humeral and two post-median black dots. *Head:* Unicoloured black, including antennae and mouth parts, covered with whitish setae. Clypeus with a subtriangular median notch and covered with a coarse and strongly wrinkled punctuation, as well as frons. Vertex covered with a finer punctuation and not wrinkled. Antennae dentate from fourth joint to the apex. First antennomere cylindrical, as long as second and third together. Fourth to tenth antennomeres subtriangular and very slightly wider than long. Eleventh antennomere ovoid, 1.3 times longer than wide. *Pronotum:* 1.7 times wider than long, slightly emarginated in the anterior side. Lateral sides broadly

margined, basal side narrowly margined. Surface covered with large punctures bearing whitish hairs, the space between punctures shiny with some micro-punctures. *Elytra*: strongly convex, 2.3 times longer than wide, widest behind middle. Lateral sides constricted behind humeral callus, which is well developed. Lateral margins narrowly explanate, apex rounded. Surface glabrous, punctation completely disordered. Punctures large, effacing to the apex. Space between punctures dull and covered with micro-punctures. *Median lobe of aedeagus*: strongly deflexed in lateral view (Figs. 1a, 2a), enlarged apically in dorsal view (Figs. 1b, 2b). Apex bearing a dorsal operculum comprised by two lateral arms and a central large mushroom-shaped piece, which is not wider than the lateral arms. Below the mushroom-shaped piece appear two elongate pieces protruding from the sclerotized structure of the endophallus (Fig. 9). Endophallus with two lateral arms enlarged apically, one unpaired central sclerite located, approximately as broad as long and wider apically than basally, located in front of two ear-shaped pieces. *Spermatheca*: receptacle and hooked pump not delimited, duct extraordinarily long and thin, forming no small loops (Fig. 17).

Diagnosis. Length = 6.5–9.0 mm. Among the species belonging to the *L. tristigma* species group, the new taxon can be separated by the large size of the median lobe of aedeagus (3.5–4.0 mm, n = 9) (Figs. 1a, 2a), which has a mushroom-shaped piece in the operculum, large but not wider than the lateral arms (Fig. 1b, 2b); the shape of the sclerites of the endophallus (Fig. 9), with two lateral pieces enlarged apically and the unpaired central sclerite approximately as long as broad and wider apically than basally; spermathecal duct extraordinarily long and not curled in small loops (Fig. 17).

Distribution. The new species is known from the Galician provinces of Lugo and Ourense (northwest Spain). Its presence in the neighbour provinces of Pontevedra and León, as well as in North Portugal, is quite probable due to the position of some currently known localities near the boundaries of these regions.

Ecology. No determinant information is available regarding the host-plant of the new species. Several specimens were captured on flowers of *Halimium alyssoides* (Lam.) C. Koch. [Cistaceae] or spikes of Poaceae, always near oak forests.

Lachnaia pseudobarathraea Daniel & Daniel, 1898 (Figs. 3–6, 10–12, 18–21)

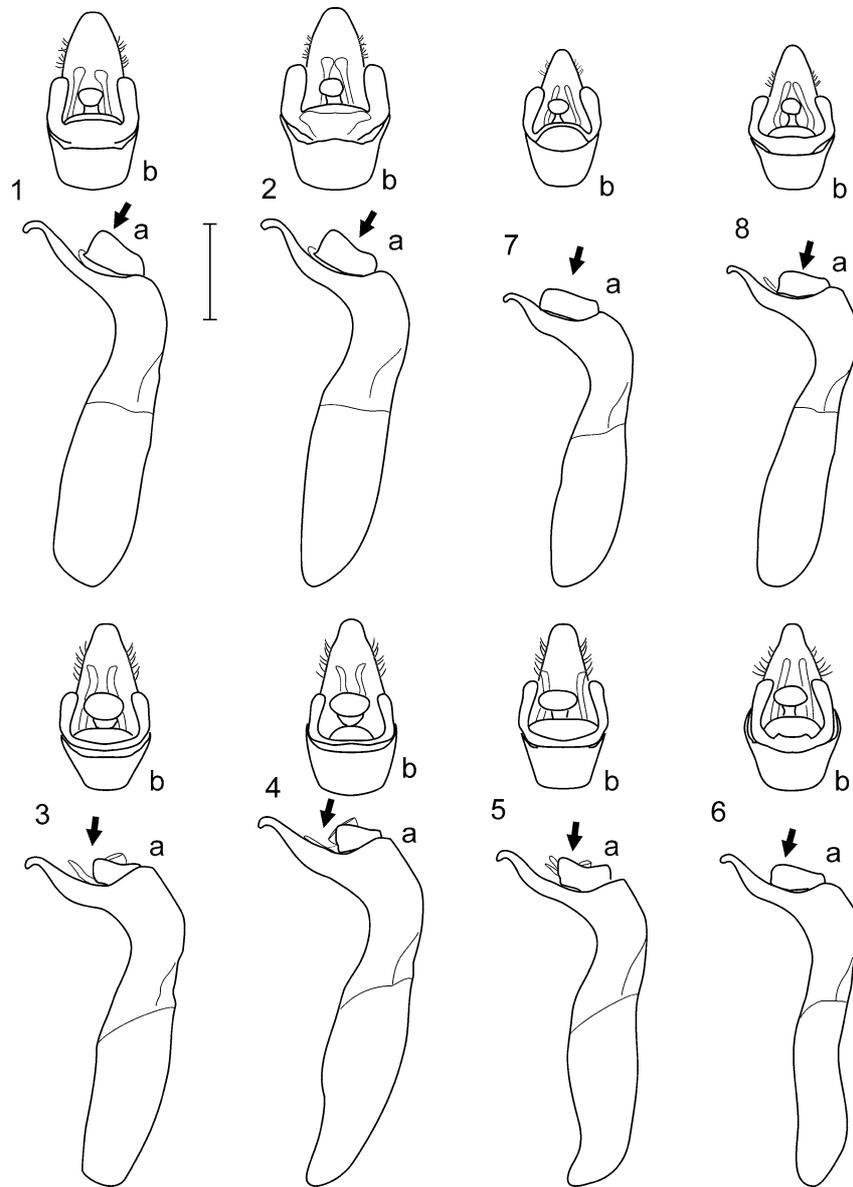
Lachnaea pseudobarathraea Daniel & Daniel, 1898: 80

Lachnaea insidiosa Cobos, 1954: 144

Lachnaia tristigma: Cobos, 1954; Codina Padilla, 1958 (pars); Petitpierre, 2000 (pars); Warchalowski, 2003 (pars).

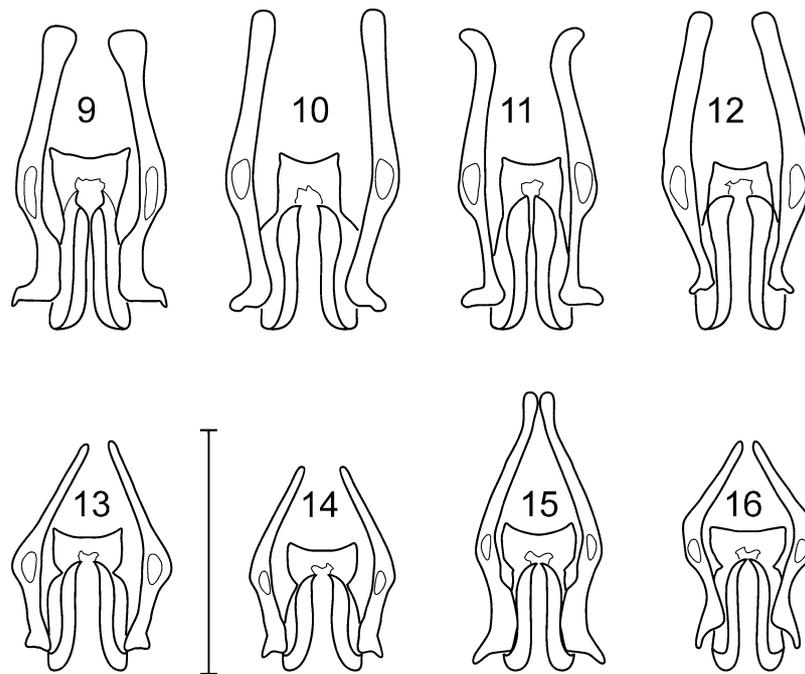
Material examined: SPAIN: Albacete, Yeste [30SWH5946], 1 male (J. Ardois); Alicante, Calpe [31SBC4281], 29 March 1988, 1 female (Baselga, BASC); Alicante, Orihuela [30SXH8017], 2 males and 1 female (Lauffer); Alicante, 1 female; Almería, Huercal-Overa [30SWG9338], 4 males and 1 female (Lauffer); Almería, Huercal-Overa [30SWG9339], 3 males; Almería, Tíjola [30SWG4933], 1900, 4 males and 3 females (Escalera); Almería, Tíjola [30SWG4934], 1 male; Almería, 1 April 1901, 1 male (Lauffer); Córdoba, Iznájar [30SUG8424], April 1909, 8 males and 6 females (Exp. MNCN); Córdoba, Lucena [30SUG6841], April 1909, 4 males and 1 female (Exp. MNCN); Granada, Güéjar [30SVG6311], 2 males and 1 female; Granada, [Sierra de] La Sagra [30SWH30], 1900, 4 males and 4 females (Escalera); Granada, [Sierra de] La Sagra [30SWH30], 4 males and 3 females (J. Ardois); Granada, [Sierra de] La Sagra [30SWH30], 2 males; Granada, Motril [30SVF5366], March 1909, 3 males and 1 female (Exp. MNCN); Granada, Puebla de Don Fadrique [30SWH4901], 1 male; Granada, Puebla de Don Fadrique [30SWH4901], 1900, 2 males and 4 females (Escalera); Granada, Puerto de la Ragua [30SVG90], 1 female; Granada, Sierra Nevada [30SVG60], 17 July 1995, 1 female; Granada, Sierra Nevada [30SVG60], July 1903, 1 male (Escalera); Granada, Sierra Nevada [30SVG60], 1 male (Pérez Arcas); Granada, Sierra Nevada [30SVG60], 1 female (Chicote); Granada, Sierra Nevada, El Albergue [30SVG60], 17 July 1972, 1 male and 3 females (A. Machado); Granada, Sierra Nevada, Río Monadril [30SVG60], 17 July 1972, 3 males and 2 females (A. Machado); Jaén, Sierra de Cazorla,

Linarejos [30SWH00], 26 April 1992, 1 female (C.G. Soler); Jaén, Sierra de Cazorla, Mesa del Poyo del Manquillo [30SWG1193], June 1962, 2 females (Cobos); Málaga, 1 male (A. Sáenz); Murcia, Cartagena [30SXG7863], May 1905, 1 male (Lauffer); Murcia, Lorca [30SXG1470], 1 female (Pérez Arcas); Murcia, 1 female (Pérez Arcas).



FIGURES 1–8. Median lobe of aedeagi of *Lachnaia* spp.: (a) lateral view, (b) dorsal view, from the angle pointed by arrows. (1) *L. gallaeca* from Manzaneda, paratype. (2) *L. gallaeca* from Sierra de Ancares, paratype. (3) *L. pseudobarathraea* from Sierra Nevada. (4) *L. pseudobarathraea* from Tíjola. (5) *L. pseudobarathraea* from La Sagra. (6) *L. pseudobarathraea* from Iznájar. (7) *L. tristigma* from Villanúa-Castiello. (8) *L. tristigma* from Jerez. Scale bar: 1 mm.

Diagnosis. Length = 6.5–9.5 mm (n = 94). Among the taxa belonging to the *L. tristigma* species group, *L. pseudobarathraea* can be separated by the large size of the median lobe of aedeagus (3.3–4.0 mm, n = 24) (Figs. 3a, 4a, 5a, 6a), which has a mushroom-shaped piece in the operculum much wider than the lateral arms (Figs. 3b, 4b, 5b, 6b); the shape of the sclerites of the endophallus (Figs. 10–12), with two lateral pieces long but not enlarged apically and the unpaired central sclerite approximately near as long as broad and near as wide apically as basally; and spermathecal duct extraordinarily long and generally not curled in small loops (Figs. 18, 19, 21, but see Fig. 20).



FIGURES 9–16. Endophalli of *Lachnaia* spp. (9) *L. gallaeca* from Baltar, paratype. (10) *L. pseudobarathraea* from Sierra Nevada. (11) *L. pseudobarathraea* from La Sagra. (12) *L. pseudobarathraea* from Iznájar. (13) *L. tristigma* from Ayamonte. (14) *L. tristigma* from Quero. (15) *L. tristigma* from Teruel. (16) *L. tristigma* from Valladolid. Scale bar: 1 mm.

Distribution. *Lachnaia pseudobarathraea* is distributed in southern Spain, from the Betic mountain ranges to the south and ranging from eastern Malaga to south Alicante.

Remarks. Specimens from the cited distribution range but not from the type locality (Sierra Nevada) were identified as *L. tristigma* by previous authors based on the small elytral dots. We studied the Codina Padilla collection (now deposited in MNCN) and confirmed that specimens (two females) he recorded from Jaén (Sierra de Cazorla) and attributed to *L. tristigma* (Codina Padilla, 1958) are in fact *L. pseudobarathraea*, based on their spermathecae. This seems also the case of specimens from Almería attributed to *L. tristigma* by Cobos (1954), based on the median lobe of aedeagus figured by the cited author, and Petitpierre (2000).

Lachnaia tristigma (Lacordaire, 1848) (Figs. 7-8, 13-16, 22-23)

Clythra (*Lachnaea*) *tristigma* Lacordaire, 1848: 183.

Material examined: PORTUGAL: Algarve, Lagos [29SNB20], May 1909, 4 males and 3 females (exp. MNCN); Algarve, Monchique, Alferce [29SNB32], May 1909, 1 male and 2 females (exp. MNCN); SPAIN: Albacete, Molinicos [30SWH6658], 1 male; Alicante, Alcoy [30SYH19], April 1936, 1 male (Verdú); Andalucía, 1 male (Pérez Arcas); Ávila, Madrigal [30TUL3250], 1 male (J. Ardois); Ávila, Valle de Iruelas [30TUK67], May 1920, 1 male (C. Bolívar); Ávila, 1 male and 1 female (J. Sanz); Cáceres, Guadalupe [30STJ9969], 27 May 1927, 12 males; Cáceres, Las Hurdes [29TQE38], 2 females (Martínez Sáez); Cáceres, Sierra de Guadalupe [30TJ96], 1 male and 1 female (Lauffer); Cádiz, Jerez [29SQA5563], 2 males and 2 females (E. Pons); Cádiz, Jerez [29SQA5563], 15 May 1929, 1 male; Cádiz, Puerto de Santa María [29SQA4754], 1 male (Dusmet); Cádiz, Puerto de Santa María, La Piedad [29SQA4754], 9 May 1937, 1 male and 1 female (Junco); Cádiz, 1 male and 1 female (Martínez Sáez); Cádiz, 1917, 2 males (Smith); Cádiz, 1 male (Pérez Arcas); Ciudad Real, Almodóvar del Campo [30SUH9785], 1 male and 1 female (Pérez Arcas); Ciudad Real, Sierra Morena, Fuencaliente [30SUH8651], 2 males (J. Cabre); Cuenca, Cañizares

[30TWK6885], 5 females (Selgas); Cuenca, Ciudad Encantada [30TWK85], 1 male (C. Bolívar); Cuenca, 1 male and 1 female (Martínez Sáez); Cuenca, 2 females (Jiménez Cano); Cuenca, July 1906, 2 males and 2 females (Arias); Guadalajara, Azañón [30TWL3804], 10 May 1929, 1 male; Guadalajara, Madrigal [30TUL3250], 3 males (J. Ardois); Huelva, La Palma [del Condado] [29SQB13], 1 male (Martínez Sáez); Huelva, La Palma [del Condado] [29SQB14], 1 female (Martínez Sáez); Huelva, Puebla de Guzmán [29SPB5464], May 1909, 1 male (exp. MNCN); Huelva, Tharsis [29SPB6663], May 1909, 1 female (exp MNCN); Huesca, Embún [30TXN82], May 1952, 2 females (L. Báguena); Huesca, Jaca, Peña Oroel [30TYN01], May 1952, 1 female (L. Báguena); Huesca, Villanúa-Castiello [30TYN02], May 1952, 3 males (L. Báguena); Jaén, Linares [30SVH4416], 1 male and 1 female; Madrid, Cercedilla [30TVL1010], 1 male (MNCN); Madrid, Escorial [30TVL0307], 1 male and 1 female (Lauffer); Madrid, Horcajuelo [30TVL5445], May 1933, 1 male (C. Bolívar); Madrid, Humanes [30TVK2956], 1 female (Lauffer); Madrid, Loeches [30TVK6570], 5 females (G. Mercet); Madrid, Montarco [30TVK5466], 3 males (C. Bolívar); Madrid, Montarco [30TVK5466], April 1896, 1 male (Lauffer); Madrid, Montarco [30TVK5466], 2 males (Arias); Madrid, Montarco [30TVK5466], 1 male and 1 female (G. Ceballos); Madrid, Móstoles [30TVK2664], 3 males (J. Ardois); Madrid, Navacerrada [30TVL1409], 1 male (Uhagón); Madrid, Paracuellos de Jarama [30TVK5584], 1 male (J. Dusmet); Madrid, Paracuellos de Jarama [30TVK5584], 21 May 1899, 2 females (Lauffer); Madrid, Rivas [30TVK5673], 2 females (C. Bolívar); Madrid, Rivas [30TVK5673], 3 males (G. Carrasco); Madrid, Rivas [30TVK5673], 1 female (Dusmet); Madrid, Villaverde [30TVK4066], 2 females (Arias); Madrid, 1 male and females (J. Ardois); Málaga, Antequera [30SUF6297], 15 May 1931, 1 female (J. Hernández); Málaga, Ronda [30STF9967], 1929, 1 female (J. Hernández); Salamanca, Masueco [29TQF0463], 19 June 2001, 1 female (Baselga, BASC); Salamanca, Trabanca [29TQF1973], 20 June 2001, 1 female (Baselga, BASC); Segovia, Cañada del Cubillo [30TVL25], July 1906, 3 males and 2 females (Arias); Sevilla, Alrededores de Osuna [30SUG20], 4 males; Sevilla, 1 female; Sevilla, 1 male (Pérez Arcas); Soria, Urbión [30TWM15], June 1925, 1 female; Soria, 1 male (Lauffer); Teruel, May 1932, 1 male (B. Muñoz); Teruel, June 1928, 1 male (B. Muñoz); Teruel, 1 male and 1 female (J. Sanz); Toledo, Alberche [30TUK85], May 1908, 11 males and 8 females (Arias); Toledo, Alberche [30TUK86], 2 males (Mercet); Toledo, Quero [30SVJ7873], 2 males (M. Escalera); Zamora, Fermoselle, Fornillos [29TQF2383], 18 May 1998, 1 male and 2 females (Baselga, BASC); Zamora, Fermoselle, Fornillos [29TQF2384], 20 May 1998, 1 male and 1 female (Baselga, BASC); Zamora, Fermoselle, Fornillos [29TQF2385], 26 April 1999, 1 female (Baselga, BASC); Zamora, Fermoselle, Pinilla [29TQF1984], 29 March 2000, 1 male (Baselga, BASC); Zamora, Villadepera [29TQG3905], 18 June 2001, 1 female (Baselga, BASC); Zaragoza, Tiermas [30TXN52], 4 females (A. Sanz).

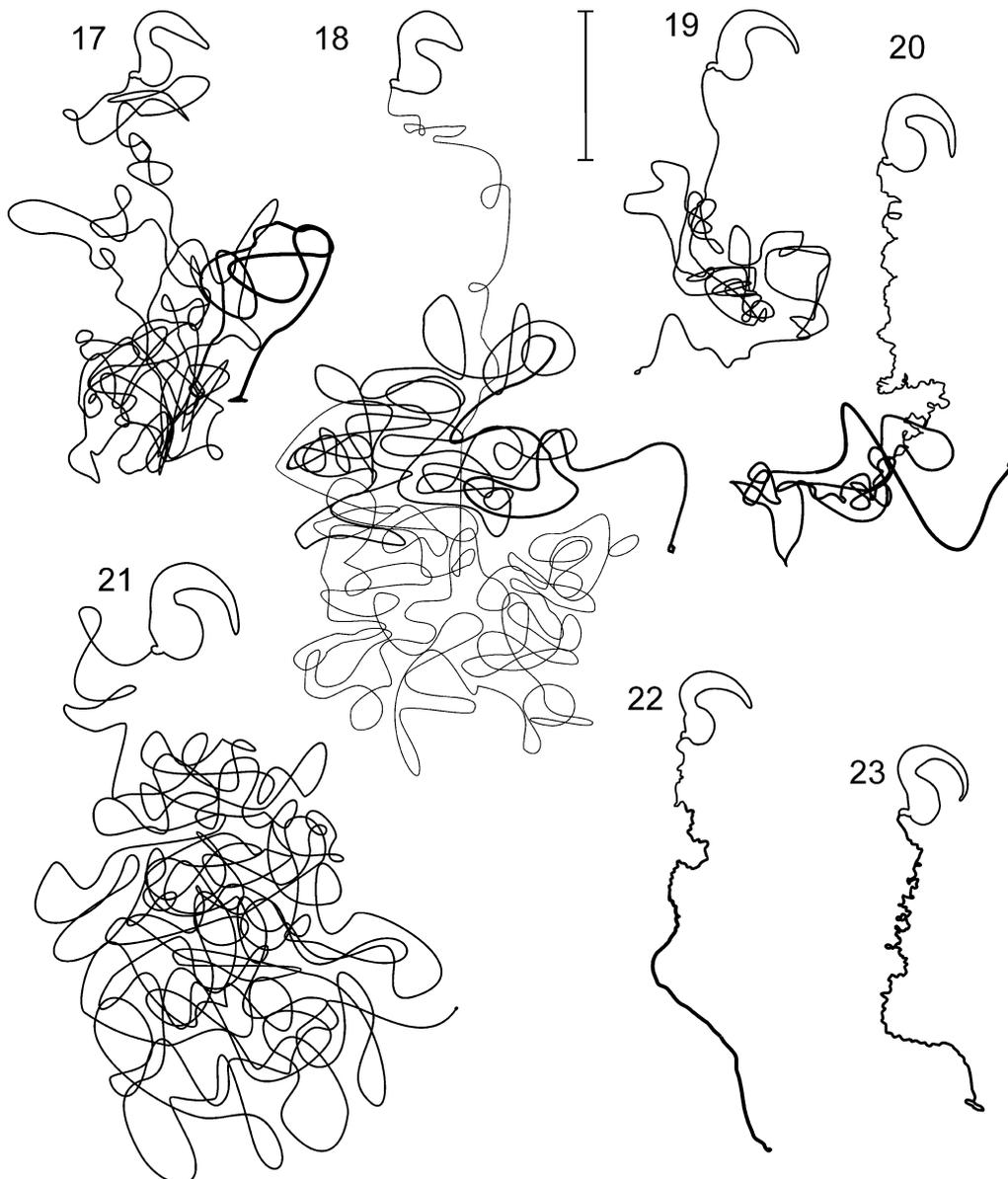
Diagnosis. Length = 6.5–8.5 mm (n = 170). Among the taxa belonging to the *L. tristigma* species group, *L. tristigma* can be separated by the small size of the median lobe of aedeagus (2.9–3.4 mm, n = 32) (Figs. 7a, 8a), which has a small mushroom-shaped piece in the operculum (Figs. 7b, 8b); the shape of the sclerites of the endophallus (Figs. 13–16), with two lateral pieces short, not enlarged apically and markedly bent medially (thus converging apically), and the unpaired central sclerite clearly broader than long and wider apically than basally; and spermathecal duct comparatively short and curled in numerous small loops (Figs. 22–23).

Distribution. *Lachnaia tristigma* is widely distributed in the Iberian peninsula, excluding only the areas occupied by *L. gallaeca* and *L. pseudobarathraea*, and southern France, whereas records from Italy and northern Africa are doubtful (Regalin, 2004). In the latter region, this species was not recorded from Morocco by Codina Padilla (1958) and we also failed to find any Moroccan specimen in MNCN collection.

Discussion

The revision of the group of species of *L. tristigma* based on the material deposited in the MNCN, involved the study of a high number of specimens, a complete geographic coverage and the detailed search for new

diagnostic characters (namely male and female genitalia). Three taxa were detected in the Iberian peninsula, despite no external diagnostic characters were found. In fact, external characters provided by Codina Padilla (1958) or Petitpierre (2000) for the separation of *L. tristigma* and *L. pseudobarathraea* seem to be variable and overlapping between both taxa, and thus useless as diagnostic characters (i.e. shape and size of elytral dots, shape of tarsomeres, shape of elytra). For this reason, the use of such external characters for the delimitation of *L. pseudobarathraea* produced the erroneous assignation of specimens from localities south to the Betic mountain ranges to *L. tristigma* based on their small elytral dots and despite these specimens have both male and female genitalia very similar to the typical *L. pseudobarathraea* and clearly different to other Iberian populations, as we show in this paper.



FIGURES 17–23. Spermathecae of *Lachnaia* spp. (17) *L. gallaeca* from Manzaneda, paratype. (18) *L. pseudobarathraea* from Sierra Nevada. (19) *L. pseudobarathraea* from Iznájar. (20) *L. pseudobarathraea* from La Sagra. (21) *L. pseudobarathraea* from Tíjola. (22) *L. tristigma* from Jaca. (23) *L. tristigma* from Jerez. Scale bar: 1 mm.

The use of genetal characters for the delimitation of taxa yields three discrete geographical groups occupying the northwestern part, the southeastern region and the rest of the Iberian peninsula, respectively. The two latter were the already described species, *L. pseudobarathraea* and *L. tristigma*, although, regarding previous

authors (Cobos, 1954; Codina Padilla, 1958; Petitpierre, 2000; Warchalowski, 2003), these names are here combined with different series of specimens, as mentioned before. The first group is the newly described *L. gallaeca* n. sp., which can be separated from the other two taxa by the combination of characters aforementioned in the Diagnosis section. Interestingly, *L. gallaeca* n. sp. seems closer to *L. pseudobarathraea* based in the large size of the median lobe of aedeagus and the sclerotized pieces of the endophallus and especially by the extraordinarily long spermathecal ductus.

Considering the close relationship among the three taxa, we assessed their taxonomic status carefully. Due to the consistency between diagnostic characters in different localities (i. e. male and female genitalia present the same geographic variation patterns), the stability of these characters within the defined geographic groups and the allopatric distributions of the three taxa, the simple intraspecific variation can be discarded. Therefore, once clearly delimited the three taxa, the only available possibilities are the subspecific and specific status. Subspecies are potentially interbreeding populations isolated by geographic barriers, but these three taxa are not currently isolated by such barriers, and, for example, records of *L. pseudobarathraea* and *L. tristigma* are contiguous in provinces as Malaga or Alicante. For this reason the specific status is preserved for the two previously known taxa and also assigned to the new taxon.

Key to the species of the *Lachnaia tristigma* species-group

1. Median lobe of aedeagus shorter, with a small mushroom-shaped piece in the operculum (Figs. 7–8). Sclerites of endophallus (Figs. 13–16), with two lateral pieces short, not enlarged apically and markedly bent medially, and the unpaired central sclerite clearly broader than long. Spermathecal duct short and curled in numerous small loops (Figs. 22–23). Iberian Peninsula and southern France *Lachnaia tristigma* (Lacordaire)
- Median lobe of aedeagus larger (Figs. 1–6). Sclerites of endophallus (Figs. 9–12), with two lateral pieces long, slightly bent medially. Spermathecal duct long (Figs. 17–21) 2
2. Operculum of median lobe of aedeagus with a mushroom-shaped piece wider than the lateral arms (Figs. 3–6). Sclerites of endophallus (Figs. 10–12), with two lateral pieces sometimes bent but not enlarged apically, and the unpaired central sclerite as broad apically than basally, or broader basally. South-eastern Spain, from Malaga to Alicante *Lachnaia pseudobarathraea* Daniel & Daniel
- Operculum of median lobe of aedeagus with a mushroom-shaped piece as wide as lateral arms (Figs. 1–2). Sclerites of endophallus (Fig. 9), with two lateral pieces enlarged apically, and the unpaired central sclerite broader apically than basally. North-western Spain: Galicia *Lachnaia gallaeca* n. sp.

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