REVISION OF LACORDAIRIUS CH. BRISOUT, 1866, A SUBGENUS OF TRACHYPHLOEUS GERMAR, 1817 (COLEOPTERA, CURCULIONIDAE)

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ABSTRACT

The present paper is a taxonomic revision and redescription of Lacordairius Ch. Brisout, 1866, a subgenus of Trachyphloeus Germar, 1817. Taxonomic position of the group and synonymy of individual species are discussed, and a key to the species of Lacordairius and illustrations of the species and aedeagi are given. New synonyms are: T. uhagoni Escalera, 1923, T. ontigolensis Escalera, 1923 and T. complutensis Escalera, 1923 (syn. n.) of T. seidlitzii (Ch. Brisout, 1866); T. lucusensis Escalera, 1923 (syn. n.) of T. reichei Seidlitz, 1868; T. herrerai (Escalera, 1924) (syn. n.) of T. pici Formáněk, 1907 and T. algesiranus var. walkerii Escalera, 1923 (syn. n.) of T. algesiranus Escalera, 1923. Lectotype designations are given for T. reichei, T. denticulatus Escalera, 1914, T. ontigolensis, T. complutensis, T. lucusensis, T. algesiranus, T. subsetulosus Escalera, 1923, T. antoinei (Escalera, 1924) and T. herrerai.

Key words: Coleoptera, Curculionidae, Trachyphloeus, Lacordairius, Iberian peninsula, North Africa, Madeira, taxonomic revision.

INTRODUCTION

BRISOUT (1866) used the name Lacordairius for a new genus containing a single new species —Lacordairius seidlitzii. He characterized this genus: «Ce genre présente complétement le faciès des Trachyphloeus, mais il s’en éloigne par la petitess de ses yeux et son funicule de cinq articles seulement.» The size of eyes is not possible to use, for species with 6- or 7-segmented funicle also have the small eyes, for example both species of subgenus Pseudolacordairius Escalera, 1923, and T. cinereus Solari, 1905, T. proximus Solari, 1905, T. pollicatus Formáněk, 1907 and several others. T. seidlitzii is very similar to other
species of *Trachyphloeus* also in all other characters
except the number of funicle segments. 

**Desbrochers** (1895) described next a new genus *Paratraglyphloeus* with a new species *P. variegatus* that is also very similar to *Trachyphloeus*, but «il en diffère essentiellement par le funicle qui n’a que cinq articles». Thus this genus was separated from *Trachyphloeus* according to the same character as *Lacordairius*. 

**Seidlitz** (1868) and **Marseul** (1873) both considered *Lacordairius* a synonym of *Trachyphloeus*. 

**Bedel** (1893) described *T. muralis* as «Trachyphloeus (Lacordairius) muralis». In his revision, **Formánek** (1907) set out *Lacordairius* as a synonym of *Trachyphloeus* again. Only **Escalera** (1923) used *Lacordairius* as a subgenus of *Trachyphloeus* and he classified into this subgenus all species with a 5-segmented funicle. From my study of extensive material of the whole genus it results that these species are different from the other species of *Trachyphloeus* only by a single autapomorphous character, the 5-segmented funicle. That is why I agree with **Escalera** (1923) in the same way as with subgenus *Pseudolacordairius* (Borovec, 1989) and confirm *Lacordairius* as a subgenus of *Trachyphloeus*.

Subgenus *Lacordairius* Ch. Brisout, 1866

Type-species: *Trachyphloeus seidlitzii* (Ch. Brisout, 1866) by monotypy.

Species of this subgenus have a 5-segmented funicle. Through that character they differ strikingly from all other species of Palaearctic *Trachyphloeus* with 6- or 7-segmented funicle. Rostrum wider than long, anteriorly narrowing in the same way as dorsal surface of rostrum. Scrobes in dorsal view visible or invisible. Eyes small, convex or flat (figs. 14-20), in lateral view closer to the lower side of the head. Pronotum wider than long. Elytra oval (figs. 6-13), with one row of raised scales on each interval (in *T. pici* raised scales only on odd intervals). Adherent scales on elytra rare or dense, irregularly angular or star-shaped. Apex of anterior tibia digitate with five spines, outer and inner lobe armed with one spine, middle lobe armed with two spines, the last, fifth spine placed between inner and middle lobes. Indentation between outer and middle lobes long and deep, only in *T. pici* short and shallow (figs. 21-24). Exact shape of apex of anterior tibia varying in individual specimens, because of spines sometimes worn down or even broken off. Spines in males smaller and finer than in females. Tarsi slender and long. Claws fused. Aedeagus soft, feebly sclerotized, relatively small. In the Palaearctic 8 species are known from the Iberian Peninsula, North-west Africa and Madeira (figs. 28, 29).

Biology unknown. *Lacordairius* are inconspicuous animals. They live on earth and their development passes on or in the roots of various plants. In view of the hidden way of life, difficult methods of collecting and also of little interest to collectors, there are only few specimens of single species in collections. Larger quantities of specimens of several species come only from several collections in a limited number of localities. These specimens were diverted into various collections. But the detailed distribution of individual species is not clear from those data. Some species are known only from the type material.

Adult specimens of *Lacordairius* were collected in the months I to V, VII, XI, XII.

It seems that species of *Lacordairius* are not parthenogenetic. *T. seidlitzii*, *T. reichei*, *T. muralis*, *T. algesiranus* and *T. subsetulosus* seem to be bisexual species according to the proportion between males and females in examined material. I do not know males only in *T. pici* and *T. antoinei*, but from the first I have examined only three, from the second species only five specimens. The situation in *T. denticulatus* is vague. Of this species I have examined 111 females but not one male.

**ANALYSIS OF SYNONYMIES**

*Lacordairius seidlitzii* Ch. Brisout, 1866

The species was described from Spain from locality El Escorial. Brisout’s collection is deposited in Museum d’Histoire naturelle in Paris. From there Mile Perrin let me know that «pour ce qui concerne *T. seidlitzii* Ch. Brisout, j’ai regardé tous les cartons de la collection Brisout, sans succès». I have compared this species against identically determined specimens from other collections, for example, those of Stierlin, Formánek, Escalera. According to these specimens and the description, the name *seidlitzii* belongs to a species which is relatively plentiful in Spain and which is clearly different from the other species according to characters which are stated in the key.

*Trachyphloeus reichei* Seidlitz, 1868

**Seidlitz** (1868) stated in the description that this species was described from «Tanger, Barbaria» and «3 Exemplare aus Tanger von Herrn Reiche mitgeheilet». In Seidlitz’s collection (Zoologische Staatsammlung, München) is deposited one specimen which is labelled: 1. Tanger; 2. *Trachyphloeus Reichei*, Type; 3. Reichei n. sp.; 4. Type von *Trachyphloeus Reichei* Seidl. This specimen I here designate as Lectotype of the species *T. reichei* and this is the second species in the subgenus. It is probable that the remaining two specimens of the type series will be found in other collections.
Figs. 1-5.—Apex of aedeagus of: 1) *Trachyphloeus seidlitzii* (Ch. Brisout) (a-Aranjuez, b-Barreiro). 2) *T. reichei* Seidlitz. 3) *T. muralis* Bedel. 4) *T. algesiranus* Escalera. 5) *T. subsetulosus* Escalera. Scale: 0.25 mm.
**Trachyphloeus reicheianus** Marseul, 1873

Marseul (1873) stated Seidlitz’s description of *T. reichei* again and based *Trachyphloeus reicheianus* on the same type specimens as Seidlitz: «Maroc, Tanger, 3 individus.» *T. reicheianus* is therefore only a superfluous replacement name and is a junior objective synonym of *T. reichei* Seidlitz.

**Trachyphloeus muralis** Bedel, 1893

The species was described from an indefinite number of specimens from «Algérie occidentale: Nemours» (now Ghazzaouet). The type material is deposited probably in Bedel’s collection in Muséum d’Histoire naturelle in Paris. In Roubal’s collection (Slovenské národné múzeum, Bratislava) I found two specimens labelled: 1. Nemours (Alg.), Bedel; 2. *Trachyphloeus muralis* Bedel, co-type. From collection of Museo Nacional Ciencias Naturales in Madrid I examined the following two specimens labelled: 1. Nemours (Alg.), Avril; 2. *T. muralis* Bedel. All these four specimens are identical and this is the third species in the subgenus.

**Paratrachyphloeus variegatus** Desbrochers, 1895

This species is according to FORMÁNEK (1907), ESCALERA (1914) and LONA (1937) only a synonym of *T. reichei*. DESBROCHERS (1895) described *P. variegatus* from «Maroc». Unfortunately it was not possible to study type material that is probably deposited in Desbrochers’s collection (Muséum d’Histoire naturelle, Paris). However, I examined one specimen in Heyden’s collection (Institut für Pflanzenschutzforschung, Eberswalde), labelled 1. *Paratrachyphloeus variegatus* Desbr.; 2. Tanger, Desbroch. This specimen belongs to *T. reichei*, and therefore it is possible to confirm the former valid synonymy.

**Trachyphloeus pici** Formánek, 1907

This species was described from a single specimen from Algeria from locality Berg Quarsenis (= Berg Ouarsenis). The holotype is deposited according to description in Pic’s collection (Muséum d’Histoire Naturelle, Paris). I examined one specimen in Hoffmann’s collection from the same museum with labels: 1. Biskra, Algérie; 2. Museum Paris, 1968, col. A. Hoffmann; 3. *Trachyphloeus pici* Formánek, comparé au type. This specimen agrees with Formánek’s description and this is the fourth species in the subgenus.

**Trachyphloeus denticulatus** Escalera, 1914

The species was described from Morocco, locality Mogador (now Essaouira). I examined 89 specimens (all of them females) from Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid) labelled: «Marruecos, Mogador, M. Escalera» or only «Mogador» with various dates from years 1905, 1906. One well-preserved female with labels 1. Mogador, 3.1906 and 2. *T. denticulatus*, Mogador I here designate as lectotype, the others as paralectotypes. This is the fifth species in the subgenus.

**Trachyphloeus uhagoni** Escalera, 1923

ESCALERA (1923) described this species from a single specimen from locality Badajoz (Uhagon). In Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid) there is one well-preserved male labelled: 1. Badajoz; 2. *Uhagoni*, Badajoz that I have labelled as holotype. There is also one more specimen designated by Escalera as *T. uhagoni*, labelled: 1. Castillejos, 20-3-1932. These two specimens belong to *T. seidlitzii*, and *T. uhagoni* is therefore only a subjective synonym of *T. seidlitzii* Brisout.

**Trachyphloeus ontigolensis** Escalera, 1923

In the description ESCALERA (1923) stated: «Loc. Aranjuez (Martinez, Uhagon).» In his collection (Museo Nacional de Ciencias Naturales, Madrid) are 10 specimens of *T. ontigolensis* which I examined. Nine of them are labelled «Aranjuez», the last one is without locality label, only with the designation «ontigolensis». One male with dissected aedeagus (without right middle tarsus and without right hind tibia and tarsus) I here designate as lectotype, remaining eight specimens as paralectotypes. All 10 specimens belong to *T. seidlitzii*. Thus *T. ontigolensis* is merely a subjective synonym of *T. seidlitzii* Brisout.

**Trachyphloeus complutensis** Escalera, 1923

The species was described from Alcalá de Henares. I examined 11 specimens from Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid) with the labels: 1. Alcalá, 15-1-97. One well-preserved male I here designate as lectotype, the other specimens as paralectotypes. The whole series is identical with *T. seidlitzii*. Thus *T. complutensis* is a subjective synonym of *T. seidlitzii* Brisout.

**Trachyphloeus lucusensis** Escalera, 1923

This taxon was based on specimens from Larache, now El Aräich (Escalera). I examined 27 specimens from Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid), 18 of them with labels 1. Larache, M. Escalera. One male I here designate as lectotype, the other 17 specimens as paralectotypes. The remaining 9 specimens determined as *T. lucusensis* come from locality Beni Msuar. All Escalera’s material of 27 specimens belongs to *T. reichei*.
and *T. lucusensis* is a subjective synonym of *T. reichei* Seidlitz.

**Trachyphloeus algesiranus** Escalera, 1923

Escalera (1923) stated in his description «Loc. Algeciras (Escalera), Gibraltar (Champion)». In his collection (Museo Nacional de Ciencias Naturales, Madrid) are six specimens labelled: «Gibraltar» and «Algeciras, Cádiz, VI-1901, Escalera» or only «Algeciras». One very well-preserved specimen from Gibraltar I here designate as lectotype, the others as paralectotypes. This is the sixth, relatively common species in the subgenus.

**Trachyphloeus algesiranus** var. *walkeri* Escalera, 1923

The variety *walkeri* was described by Escalera (1923) from a single specimen from Tetuán. According to communication of Dr. Mingo-Pérez as well as Dr. Alonso-Zarazaga, this specimen is missing from the author’s collection (Museo Nacional de Ciencias Naturales, Madrid). Escalera described this variety in a single sentence: «Cerdillas protorácticas y humerales marcadamente mazudas, obscuras, por lo demás, como en el tipo.» I have seen about 50 specimens of this species; the width and arcuation of raised scales on pronotum and humeri vary markedly, creating a continuous coherent series. Variety *walkeri* has no importance then.

**Trachyphloeus subsetulosus** Escalera, 1923

The species was described from Pozuelo de Calatrava (La Fuente). From Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid) I have examined 21 specimens. Fourteen of these have labels 1. *T. subsetulosus* Dan. Pozuelo de Calatrava and these specimens I here designate as lectotype and paralectotypes. The remaining seven specimens of the same species were placed in Escalera’s undetermined material (6 of them from Pozuelo, one of them is without locality label). The whole of this material is dif-
different from similar *T. muralis* and this is the seventh species in the subgenus.

**Lacordairius antoinei** Escalera, 1924

This taxon was described from Casablanca (Antoine) (also known as Dar-el-Beida in Morocco). In Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid) there are four specimens, labelled: 1. Casablanca, Maroc, Antoine; 2. *Trachyphloeus reichei* Seidlitz, Hustache det. and 1. Casablanca, Maroc, Antoine that I have examined. All this material I here designate as lectotype (specimen determined by Hustache) and paralectotypes. A fifth specimen labelled 1. Casablanca, Maroc, Antoine; 2. Cotype and 3. *Trachyphloeus antoinei* Esc., Antoine det. is placed in Péricart’s collection. Because its labels are identical with labels of types from Escalera’s collection, that specimen also I have designated as paralectotype. This is the eighth species in the subgenus.

**Lacordairius herrerai** Escalera, 1924

Escalera (1924) described this species from Der Rechid en Chauia (Antoine) (= Ber Rechid). I examined two specimens from his collection (Museo Nacional de Ciencias Naturales, Madrid), labelled:

1. Ber Rechid, Maroc, Antoine and 2. *Trachyphl.* sp. 1 and 1. Ber Rechid (Maroc), Antoine. These well-preserved specimens I here designate as lectotype and paralectotype respectively. They are identical with *T. pici* Formánek, therefore *T. herrerai* Escalera is only a subjective synonym of *T. pici* Formánek. Undoubtedly Escalera did not know *T. pici* at all, for he did not mention it either in the description of *T. herrerai* or in the key to the whole subgenus (Escalera, 1923).

**CATALOGUE**

*Trachyphloeus seidlitzii* (Ch. Brisout, 1866) (Lacordairius).

- *uhagoni* Escalera, 1923 (*Trachyphloeus*) syn. n.
- *ontigolensis* Escalera, 1923 (*Trachyphloeus*) syn. n.
- *complutensis* Escalera, 1923 (*Trachyphloeus*) syn. n.
- *T. reichei* Seidlitz, 1868 (*Trachyphloeus*).
- *reicheianus* Marseul, 1873 (*Trachyphloeus*).
- *variegatus* (Desbrochers, 1895) (*Paratrachyphloeus*).
- *lucusensis* Escalera, 1923 (*Trachyphloeus*) syn. n.
- *T. muralis* Bedel, 1893 (*Trachyphloeus*).
- *T. pici* Formánek, 1907 (*Trachyphloeus*).
- *herrerai* (Escalera, 1924) (*Lacordairius*) syn. n.
- *T. denticulatus* Escalera, 1914 (*Trachyphloeus*).
- *T. algesiranus* Escalera, 1923 (*Trachyphloeus*).
- var. *walkeri* Escalera, 1923 (*Trachyphloeus*) syn. n.

*T. subsetulosus* Escalera, 1923 (*Trachyphloeus*).
*T. antoinei* (Escalera, 1924) (*Lacordairius*).

**KEY TO THE SPECIES**

1. Long and slender raised scales only on alternate intervals of elytra. Apex of anterior tibia with weak indentations, spines short and wide (fig. 21). Algeria, Morocco. 2.3 - 2.8 mm. *T. pici* Formánék

--- Short or long raised scales on each interval of elytra, sometimes poorly visible. Apex of anterior tibia strikingly digitate, outer and inner indentations long and deep, spines slender (figs. 22-24) ........ 2

2. Dorso-lateral borders of rostrum before the eyes abruptly enlarged, then convergent anteriorly (fig. 18). Pronotum usually with narrow median longitudinal groove with sharp edges from anterior to posterior border. Second segment of funicle slightly longer than wide, segments three to five strikingly wider than long. Morocco. 2.4 - 3.3 mm ............................... *T. denticulatus* Escalera

--- Dorso-lateral borders of rostrum before the eyes feebly or strongly anteriorly convergent (figs. 14-17, 19, 20). Pronotum without longitudinal median groove, only some specimens of *T. seidlitzii* with a central longitudinal groove, but shallow with indistinct edges. Second segment of funicle slightly or strikingly longer than wide, segments three to four as wide as long, a little wider, or strikingly wider than long .......................... 3

3. Raised scales on head, pronotum and elytra slight, very thin, black, pointed, bristle-shaped, a little longer than diameter of adherent scales ........ 4

--- Raised scales slight or significant, greyish, yellowish or brownish, on elytra terminally enlarged, exceptionally in *T. algesiranus* parallel-sided, at least as long as half the width of interval, only in *T. reicheli* shorter ................................. 5

4. Pronotum with the sides feebly arcuate, with the widest point in the middle, only behind the anterior border in anterior quarter strikingly constricted (fig. 8). Rostrum shorter, at least $1.4 \times$ wider than long (fig. 16). Antennal funicle shorter. Second segment at most $1.6 \times$ longer than wide, fourth wider than long, fifth more than $1.5 \times$ wider than long. Algeria, Morocco. 2.6-3.0 mm .... *T. muralis* Bedel

--- Pronotum with the widest point in the middle or closely before the middle, in the whole anterior half anteriorly tapered, in the basal half feebly tapered posteriorly, sides weakly arcuate (fig. 12). Rostrum longer, at most $1.4 \times$ wider than long (fig. 20). Antennal funicle longer. Second segment $2 \times$ as long as wide, third and fourth as long as wide, fifth less than $1.5 \times$ wider than long. Spain. 2.2-2.8 mm ............................... *T. subsetulosus* Escalera

5. Elytral adherent scales with form like 5- or 6-pointed star, with significant pit in the middle, the distance between them more than the radius of scale (fig. 25). Scrobes in dorsal view almost invisible. Eyes flat (fig. 14). Elytral intervals strongly convex. Raised scales on elytra long, enlarged terminally, few, the distance between them about $3.4 \times$ their length. Portugal, Spain. 2.0 - 2.9 mm ............................... *T. seidlitzii* (Ch. Brisout)

--- Elytral adherent scales irregularly angular, dense, the distance between them much smaller than the radius of scale (figs. 26, 27). Scrobes in dorsal view almost invisible or in part visible. Eyes convex (figs. 15, 19, similar to 17). Elytral intervals flat, feebly convex or only odd intervals strongly convex.
Raised scales on elytra either short or long and dense, the distance between them at most twice their length ................................................................. 6

6. Pronotum very wide, more than 1.5 × wider than long, widest in basal third, behind the anterior border very strongly constricted (fig. 11). Elytral adherent scales with visible translucent ribs and pits (fig. 27). Raised scales on pronotum and elytra narrow and parallelsided. Spain, Morocco, Madeira. 1.9 - 2.8 mm .................. T. algesiranus Escalera — Pronotum wide, less than 1.5 × wider than long, widest across middle (figs. 7, 13). Adherent scales on elytra with one or some pits, sometimes poorly visible (fig. 26). Raised scales on pronotum and elytra enlarged distally ........................................ 7

7. Pronotum anteriorly strongly, posteriorly feebly tapered, base feebly prominent towards scutellum. Pronotum in relation to elytra larger. Elytra shorter and wider (fig. 7). Raised scales on pronotal sides very short, in dorsal view almost invisible. Second segment of funicle a little longer than wide. Morocco, Madeira. 1.6 - 2.5 mm .... T. reichei Seidlitz — Pronotum with sides regularly arcuate, anteriorly a little more strongly narrowed than posteriorly, in relation to elytra smaller. Elytra longer and narrower (fig. 13). Raised scales on pronotal sides long, in dorsal view prominent. Second segment of antennal funicle 2 × as long as wide. Morocco. 1.2 - 2.3 mm .................. T. antoinei (Escalera)

DESCRIPTIONS

Trachyphloeus seidlitzii (Ch. Brisout, 1866)

Rostrum wider than long (ratio length/width 1:1.23 - 1.36) with shallow longitudinal median groove, sometimes almost concealed. Rostrum and its dorsal surface anteriorly weakly tapered (fig. 14). Segment 2 of funicle 1.3 - 1.7 × longer than wide, segments 3, 4 a little, segment 5 significantly wider than long. Pronotum varying in width, ratio

Figs. 25-27.—Adherent scales of elytra of: 25) Trachyphloeus seidlitzii (Ch. Brisout). 26) T. reichei Seidlitz. 27) T. algesiranus Escalera. Scale: 0.05 mm.
Fig. 28.—Map of distribution: 1) *Trachyphloeus seidlitzii* (Ch. Brisout). 2) *T. reichei* Seidlitz. 3) *T. muralis* Bedel. 4) *T. antoinei* (Escalera).

length/width is 1:1.39 - 1.73, but always with the widest point in anterior third, anteriorly very significantly, posteriorly more weakly narrowed, base feebly prominent towards scutellum. Pronotum convex, in some specimens with shallow, wide, longitudinal median groove. Elytra oval with the widest point in the middle, ratio width/length 1:1.12 - 1.18 (fig. 6). Apex of anterior tibia similar to fig. 24. Tarsi slender and long. Segment 2 as long as wide or slightly wider than long and only a little narrower than the segment 3. Claw segment exceeds the third more than 1.5 x. Specimens mostly brownish, fresh specimens with light irregular spots from white or greyish adherent scales on pronotum and elytra. Aedeagus: fig. 1.

*T. seidlitzii* shows variability in shape of pronotum and segment 2 of antennal funicle. Pronotum is in some specimens shorter and wider or longer and narrower, but always with the widest point in anterior third. In segment 2 of funicle ratio width/length is 1:1.33 - 1.67. The shape of pronotum and segment 2 of funicle vary markedly, creating a continuous coherent series among specimens from each locality as well, that is why it is not possible to accept Escalera’s species. He knew this species from five localities and he described it as a new species from each of them: except for the typical *T. seidlitzii* from locality El Escorial he described *T. uhagoni* from locality Badajoz, *T. ontigolensis* from Aranjuez and *T. complutensis* from Alcalá de Henares. Material from the fifth locality, Pozuelo de Calatrava is in Escalera’s collection labelled partly as *T. pozuelensis* (11 specimens) and partly as *T. fuentei* (24 specimens). It is probable that Escalera wanted to describe these two species, but their descriptions never appeared in print and therefore the names *T. pozuelensis* and *T. fuentei* are nomina nuda. Interpretation of distinguishing characters in ESCALERA’s key (1923) is not exact and does not correspond to the characters in type specimens of any of Escalera’s species. For example according to length of segment 2 of funicle it is possible to determine all material of *T. seidlitzii*, including types of *T. ontigolensis* and *T. uhagoni* only as *T. complutensis*. From this fact results also the last men-
tion of *T. complatensis* in literature as well (ALONSO-ZARAZAGA & VELÁZQUEZ DE CASTRO GONZÁLEZ, 1986).


*Trachyphloeus reichei* Seidlitz, 1868

Rostrum wider than long (ratio length/width 1:1.18 - 1.44), dorsal surface of rostrum and rostrum narrowing anteriorly, in some specimens with shallow longitudinal groove. Eyes convex. Scrobes in dorsal view visible as small pits in anterior part of rostrum (fig. 15). Segment 2 of funicle less than 1.5 x longer than wide, segments 4 and 5 significantly wider than long. Pronotum 1.33 - 1.48 x wider than long. Elytra very short and wide, sometimes almost as wide as long, ratio width/length 1:1.01 - 1.14 (fig. 7). Intervals 1, 3, 5 and 7 basally ridge-shaped prominent, exceptionally ridges reach to or even beyond the middle of elytra; sometimes all the intervals flat. Apex of anterior tibia similar to fig. 24. Tarsal segment 2 slightly wider than long, claw segment exceeding the third by about the same distance as its length. Adherent scales on elytra irregularly angular (fig. 26), on pronotum star-shaped. Raised scales on head and pronotum almost invisible, only the sides of pronotum with some very short, nearly round scales. On elytra raised scales short, terminally enlarged, as long as a quarter, on the sides at most as half of width of interval. Pronotal and elytral vestiture variable. Whole body grey-brownish with irregularly placed black-brownish spots on pronotum and elytra, spots sometimes dense or united into short longitudinal stripes. In some specimens, whole body black-brownish with irregular greyish spots. Spots in posterior elytral third sometimes united into light transverse crescent-shaped spot with darker border. Also pronotal sides lighter. Aedeagus: fig. 2.

**Distribution** (fig. 28): MADEIRA: Porto Santo. MOROCCO: Tanger, Beni Msuar, El Arâich (= Larache).

*Trachyphloeus muralis* Bedel, 1893

Rostrum weakly narrowed anteriorly, sides straight. Dorsal surface of rostrum also weakly narrowed anteriorly, with shallow longitudinal median groove, sometimes hardly visible. Eyes flat. Scrobes in dorsal view almost invisible (fig. 16). Pronotum 1.30 - 1.43 x wider than long. Elytra long oval (ratio width/length 1:1.12 - 1.15), with weak shoulders, sides feebly arcuated (fig. 8). Intervals only weakly convex, in some specimens odd intervals a bit more convex than even intervals. Apex of anterior tibia similar to fig. 24. Tarsi slender, segment 2 slightly wider than long, claw segment exceeds the third by almost 2 x its length. Elytral adherent scales denser, the distance between them smaller than half their diameter. Body yellowish, greyish or brownish, raised scales always black. Aedeagus: fig. 3.

**Distribution** (fig. 28): west part of north Africa. ALGERIA: Ghazaouet (= Nemours). MOROCCO: Mechra Klfa.

*Trachyphloeus pici* Formánék, 1907

Rostrum 1.18 x wider than long. Rostrum as well as its dorsal surface anteriorly narrowed. Scrobes in dorsal view scarcely visible as narrow and short in anterior part of rostrum (fig. 17). Segment 2 of funicle 2 x as long as wide, segment 3 as long as wide, segment 4 weakly and segment 5 significantly wider than long. Pronotum 1.43 - 1.57 x wider than long with the widest point in the middle, anteriorly more strongly tapered than posteriorly. On dorsal surface with three wide, shallow, longitudinal feebly-marked depressions along entire length. Elytra 1.09 - 1.15 x longer than wide with almost parallel sides and significant humeri (fig. 9). In basal part odd intervals weakly ridge-shaped, prominent. Tarsal segment 2 wider than long, claw segment exceeds 1.5 x the third. Adherent scales on elytra irregularly angular, sometimes almost star-shaped or with a pit in the middle, the distance between them about the same as their diameter. Raised scales on elytra almost parallel-sided, longer than half of width of interval, forming widely spaced row on odd intervals.

**Distribution** (fig. 29): ALGERIA: Berg Ouarsenis, Biskra. MOROCCO: Ber Rechid en Chauia.

*Trachyphloeus denticulatus* Escalera, 1914

Rostrum wider than long (ratio length/width 1:1.23 - 1.25). Dorsal surface of rostrum anteriorly narrowed with vague longitudinal median groove along the whole length. Eyes flat (fig. 18). Pronotum (ratio length/width 1:1.37 - 1.41) with the widest point in anterior third or closely behind the anterior third, anteriorly strongly, posteriorly feebly narrowed. Pronotal base feebly prominent towards scutellum. Elytra long-oval (ratio width/length 1:1.09 - 1.22) with arcuate sides, widest in the middle (fig. 10). Intervals flat, striae distinct. Apex of anterior tibia fig. 22. Tarsal segment 2 slightly wider than long, claw segment almost 2 x as long as the third. Adherent scales on elytra irregularly angular, sometimes almost star-shaped. The distance between them smaller than their diameter. Raised scales on elytra and sides of pronotum long as a third or quarter of width of interval, terminally enlarged. On dorsal areas of head and pronotum raised scales short,
black, bristle-shaped. In fresh specimens white or greyish adherent scales form irregular, light spots on elytra and narrow, longitudinal, central stripe on pronotum.

**Distribution** (fig. 29): until the present time known only from MOROCCO: Essaouira (= Mogador), Tanger, Beni Msuar.

**Trachyphloeus algesiranus** Escalera, 1923

Rostrum wider than long, like its dorsal surface strongly narrowing anteriorly. Ratio length/width 1:1.36 - 1.50. Basal part of rostrum closed by tooth under convex eyes, this tooth in dorsal view concealed (fig. 19). Rostrum with distinct longitudinal median groove. Segment 2 of funicle more than 1.5 × longer than wide, segment 3 as long as wide, segment 4 a little and segment 5 significantly wider than long. Pronotum 1.56 - 1.67 × wider than long. Elytra oval with strikingly arcuate sides, ratio width/length 1:1.05 - 1.11 (fig. 11). Elytral striae marked, intervals flat, wide. Apex of anterior tibia fig. 23. Tarsi slender and long, segment 2 slightly wider than long, claw segment exceeds the third more than 1.5 ×.

Raised scales on pronotal sides and in basal half of outer intervals of elytra about as long as the half of width of interval and very dense, significantly protruding from outline of body. Raised scales on pronotal and elytral disc and in posterior half of outer elytral intervals shorter. Scales parallel, white-yellowish, on each elytral interval in one dense row. Fresh specimens have characteristic vestiture: pronotum and elytra are lightly grey-brownish with white markings bordered by darkly brown margin. White markings forming stripes on pronotal sides, a small spot in the middle of second elytral interval and a longitudinal band on elytral intervals 5, 6 and 7, reaching from base to posterior third, where, in the shape of a significantly transverse stripe, it attains the suture. Aedeagus: fig. 4.

**Distribution** (fig. 29): known from south Spain, Morocco and Madeira. MADEIRA: Porto Santo. MOROCCO: Tanger, Tétuan. SPAIN: Tarifa, Gibraltar, Algeciras.

**Trachyphloeus subsetulosus** Escalera, 1923

Very similar to *T. muralis*. Distinguishing characters as stated in the key. Pronotum with ratio...
length/width 1:1.29 - 1.48, elytra with ratio width/length 1:1.14 - 1.27. Adherent scales on elytra sparser, the distance between them about equal to their diameter.

*Distribution* (fig. 29): SPAIN: Castillejos, Pozuelo de Calatrava.

**Trachyphloeus antoinei** (Escalera, 1924)

Rostrum 1.20 - 1.22 × wider than long, rostrum and its dorsal surface narrowing anteriorly, with narrow longitudinal median groove, in some specimens almost invisible. Eyes protruding from outline of the head. Scrobes in dorsal view poorly visible only as narrow grooves in anterior part of rostrum (similar to fig. 17). Second segment of funicle less than 1.5 × longer than wide. Segments 3 and 4 a little, segment 5 more significantly wider than long. Pronotum 1.33 - 1.38 × wider than long. Elytra oval, ratio width/length 1:1.17 - 1.18 (fig. 13). Elytral striae distinct, all elytral intervals narrow, feebly convex. Apex of anterior tibia similar to fig. 24. Tarsal segment 2 strikingly wider than long, claw segment exceeds the third by a distance greater than its length. Adherent scales irregularly angular, similar to fig. 27, mostly without pits. Raised scales on disc of elytra short, shorter than half of width of interval. On outer intervals raised scales significantly longer than half of width of interval. Head, pronotum and elytra brownish-red, the first elytral interval sometimes lighter.

*Distribution* (fig. 28): so far I have seen only specimens from the classic locality, MOROCCO: Casablanca.

**Remarks**

Since the publication of my previous redescription of the subgenus *Pseudolacordairius* Escalera, 1923 (Borovec, 1989), I have studied the remaining type material of single varieties of *T. pustulatus* Seidlitz, 1868 from Escalera’s collection (Museo Nacional de Ciencias Naturales, Madrid): 5 specimens of *T. pustulatus* var. *centralis* Escalera, 1923 from Pozuelo de Calatrava, 1 specimen of *T. pustulatus* var. *valentinus* Escalera, 1923 from Segorbe, and 8 specimens of *T. pustulatus* var. *alicantinus* Escalera, 1923 from Torrevieja. All these specimens belong to the type series, and I have labelled them as paralectotypes. They all belong to *T. pustulatus* Seidlitz, 1868.

**Acknowledgements**

For help in searching the literature and for the opportunity to study Escalera’s material many thanks to Dr. M. A. Alonso-Zarazaga (Museo Nacional de Ciencias Naturales, Madrid). For the kind loan of material for study I thank Dr. L. Dieckmann (1) and L. Behne (Institut für Pflanzenschutzforschung, Eberswalde), Dr. J. Jelinek (National Museum, Prague), Dr. M. Meregalli (Università degli Studi, Torino), H. Nüssler (Staatliches Museum für Naturkunde, Dresden), Dr. I. Okáli (Slovenské národné múzíum, Bratislava), Dr. E. Mingo-Pérez (Museo Nacional de Ciencias Naturales, Madrid), J. Péricart (Montereau), H. Perrin (Muséum d’Histoire Naturelle, Paris), Dr. G. Scherer (Zoologische Staatsammlung, München), Dr. H. Schönmann (Natürliches Museum Wien), A. J. Velázquez de Castro González (Valencia). Special thanks to my colleague Mr. M. I. Russell (Peterborough) for help with the English translation.

**References**


Recibido el 9 de noviembre de 1991
Aceptado el 1 de noviembre de 1992