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(Coleoptera: Cerambycidae: Lamiinae)**

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**On some species of *Taeniotes* Audinet-Serville,
1835 (Coleoptera: Cerambycidae: Lamiinae)**

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Abstract. *Taeniotes farinosus* (Linnaeus, 1758) is a species that has been confused with other species during the past two centuries. In this work we demonstrate that *Taeniotes farinosus sensu auctorum* is not the species described by Linnaeus and designate a lectotype to establish its identity. *Taeniotes pulverulentus* (Olivier, 1790), currently synonymous with *T. farinosus*, is revalidated. *Taeniotes guttularis* Schwarzer, 1929 and *T. parafarinosus* Breuning, 1971 are junior synonyms of *T. pulverulentus*; *Lamia subocellata* Olivier, 1792 (= *Taeniotes subocellatus*) is a junior synonym of *Cerambyx farinosus* (= *T. farinosus*). Additionally we provide annotated bibliographic references to *T. farinosus* and *T. pulverulentus*. *Taeniotes monnei*, a new species from Brazil and Argentina, is described and figured. *Taeniotes peruanus* Breuning 1971 is figured for the first time.

Key Words. Lectotype, new species, synonymy, taxonomy.

INTRODUCTION

During the past 50 years, the first author has worked with the collection of Cerambycidae of the Museum of Zoology of the University of São Paulo. During this period, curatorial efforts have show that some species were misidentified. Among them, the species of *Taeniotes* Audinet-Serville, 1835 caught his attention. In this work, some of the problems in this genus are discussed.

MATERIAL AND METHODS

The collection acronyms used in this study are as follows:

MNRJ, Museu Nacional do Rio de Janeiro, Rio de Janeiro, Brazil;

MZSP, Museu de Zoologia, Universidade de São Paulo, São Paulo, Brazil;

MCNZ, Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Rio Grande Do Sul, Brazil

On *Taeniotes farinosus* (Linnaeus, 1758) and *T. pulverulentus* (Olivier, 1790)

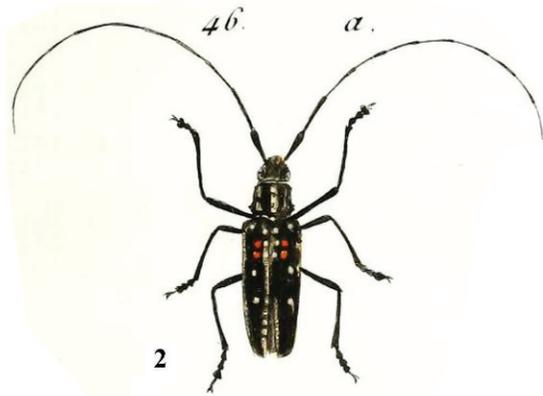
Taeniotes farinosus

Linnaeus (1758: 390) described *Cerambyx farinosus* briefly, indicating only “America” as place of origin. At the same time he indicated “*Merian. Surin. t. 24. f. infima*” (Fig. 1) as reference for the species and, concomitantly, wrote “*De Geer*” beside the locality. The citation of that name refers to the collection where Linnaeus examined specimen(s) of the species. This can be demonstrated in Linnaeus (1758: 2):

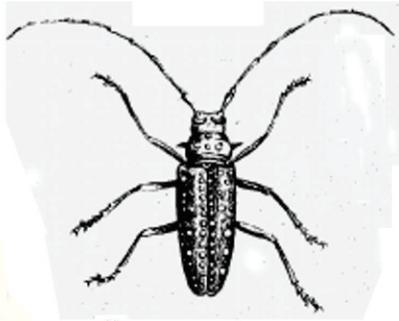
² Corresponding author



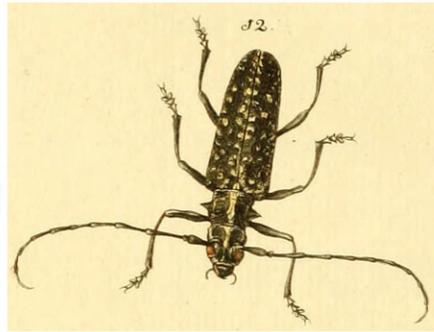
1



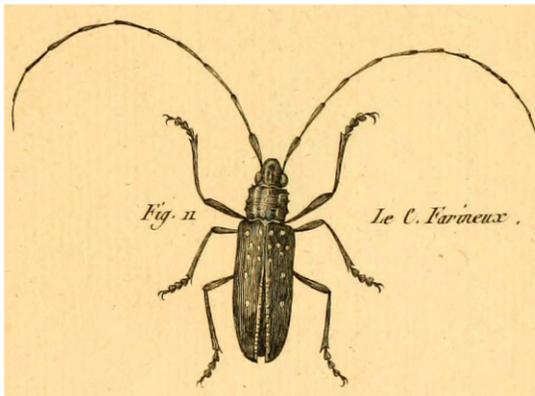
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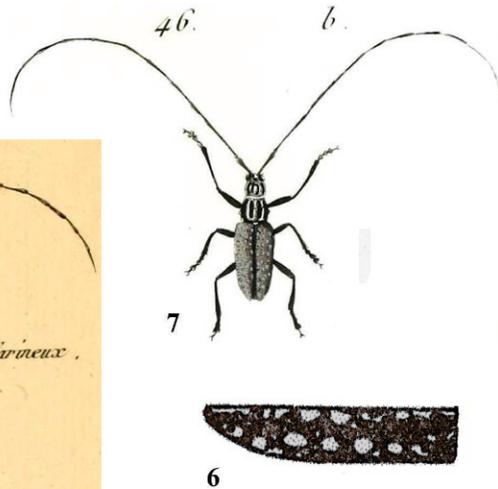
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7

6

Figures 1–7. 1–5, *Taeniotus farinosus*: Figure 1. Figure in Merian (1719), lectotype. Figure 2. Figure in Olivier (1808) (corresponds to *T. pulverulentus*). Figure 3. Figure in De Geer (1775) (corresponds to *T. pulverulentus*). Figure 4. Figure in Voet ([1766–] 1806) (corresponds to *T. pulverulentus*). Figure 5. Figure in Olivier (1797) (corresponds to *T. pulverulentus*). Figure 6. *Taeniotus cayennensis*, figure in Breuning (1943). Figure 7. *Taeniotus pulverulentus*, figure in Olivier (1808).

“COLLECTANEA, quae obtinere potui, disposui; imprimis adjuvarunt...C. DE GEER Museum”.

Thus, *Cerambyx farinosus* has at least two syntypes: (1) the specimen used by Maria Sibylla Merian to illustrate her plate, evidently from Suriname; (2) the specimen that belonged to De Geer's Collection (there could be more than one specimen in this collection). The inclusion of the specimen illustrated in Merian (1719) is in agreement with ICZN (1999: Articles 3.2, 12.2 and 72.4.1.1). De Geer's Collection is deposited in the Swedish Museum of Natural History. A list of specimens of identified Coleoptera deposited in this institution is available at http://www2.nrm.se/en/col_preface.html, with types identified as “TYPUS”: “The checklist are in alfabetical [sic] order. TYPUS indicate holotype, lectotype, paratype, syntype, or cotype.” *Taeniotes farinosus* is represented in the collection, however, there is no indication of “TYPUS”. If the specimen(s) is(are) from De Geer's Collection they must be considered as syntype(s).

Olivier (1795: 50) also indicated references for *T. farinosus* in addition the original description. Among those containing figures were: “*Ent. ou hist. nat. des ins. CAPRICORNE. Pl. 7 fig. 46.a*” (Fig. 2); “*DEG. Mem. ins. tom. 5. pag. 108. n° 9. pl. 13. fig. 17*” (Fig. 3); “*MÉRIAN. Ins. Surin. Pl. 24. n° P*” (Fig. 1); “*VOET. Coleop. pars 2. pag. 8. tab. 6. fig. 12 tab. 6. fig. 12*” (Fig. 4) (mentioned by Voet as *Cerambyx Paramaribous maculosus*).

The figures of *Cerambyx farinosus* in Olivier (1797) (Fig. 5) and Olivier (1808) (Fig. 2), apparently, were based on the same drawing of the same specimen. However, the figure in Olivier (1808), despite showing the specimen in the same position, form and proportions (legs and antennae), has obvious differences on the sides of prothorax (fewer projections) and subtle differences at the apices of the tibiae. Apparently, the original drawing was colored for the second version, which could account for those differences. It is also important to note that in the specimen illustrated in Olivier (1808) (Fig. 2) there are two red rounded spots on basal half of each elytron. However, Olivier (1790, 1795) did not mention the presence of spots, suggesting it may have been a feature of painting. Both figures do show the lateral spines of the prothorax, characteristic of the genus and commented on by Olivier (1790) [in Olivier (1808) it is possible to interpret that the projections almost at the place of posterior angles are the lateral spines]: “Le corcelet... muni de chaque cote d'une épine assez forte”. On the other hand, the figure in De Geer (1775) (Fig. 3) shows the lateral spines of the prothorax very distinct. The shape and disposition of the elytral maculae, however, are not very accurate, although it is possible to see that they are not very small. Without doubt, the drawing by Merian (1719) (Fig. 1) is the least accurate, although it shows distinctly the large elytral maculae. The most accurate drawing is that figured in Voet ([1766–] 1806) (Fig. 4).

Drury (1773) illustrated *Anoplophora chinensis* (Forster, 1771) as *Cerambyx farinosus* Linnaeus. Olivier (1790) recorded: “L'insecte décrit par Foster, sous le nom de *Cerambyx Chinensis*, & figure par Drury, tom. 2, pl. 31, fig. 4, me paroît différer de celui-ci, & appartenir plutôt au genre Lamie qu'à celui de Capricorne”. Olivier (1795) listed “*DRURY. Ins. 2. tab. 31. fig. 4*” as a reference for *Cerambyx farinosus* but wrote the same comment of Olivier (1790) on that specimen (below). However, both Olivier (1792) and Olivier (1795), when commenting on *Cerambyx punctator* Fabricius, 1771 (= *Anoplophora chinensis*), listed “*DRURY. Ins. 2. tab. 31. fig. 4*” as a reference for this species. Drury & Westwood (1837) recorded: “*Cerambyx farinosus*,

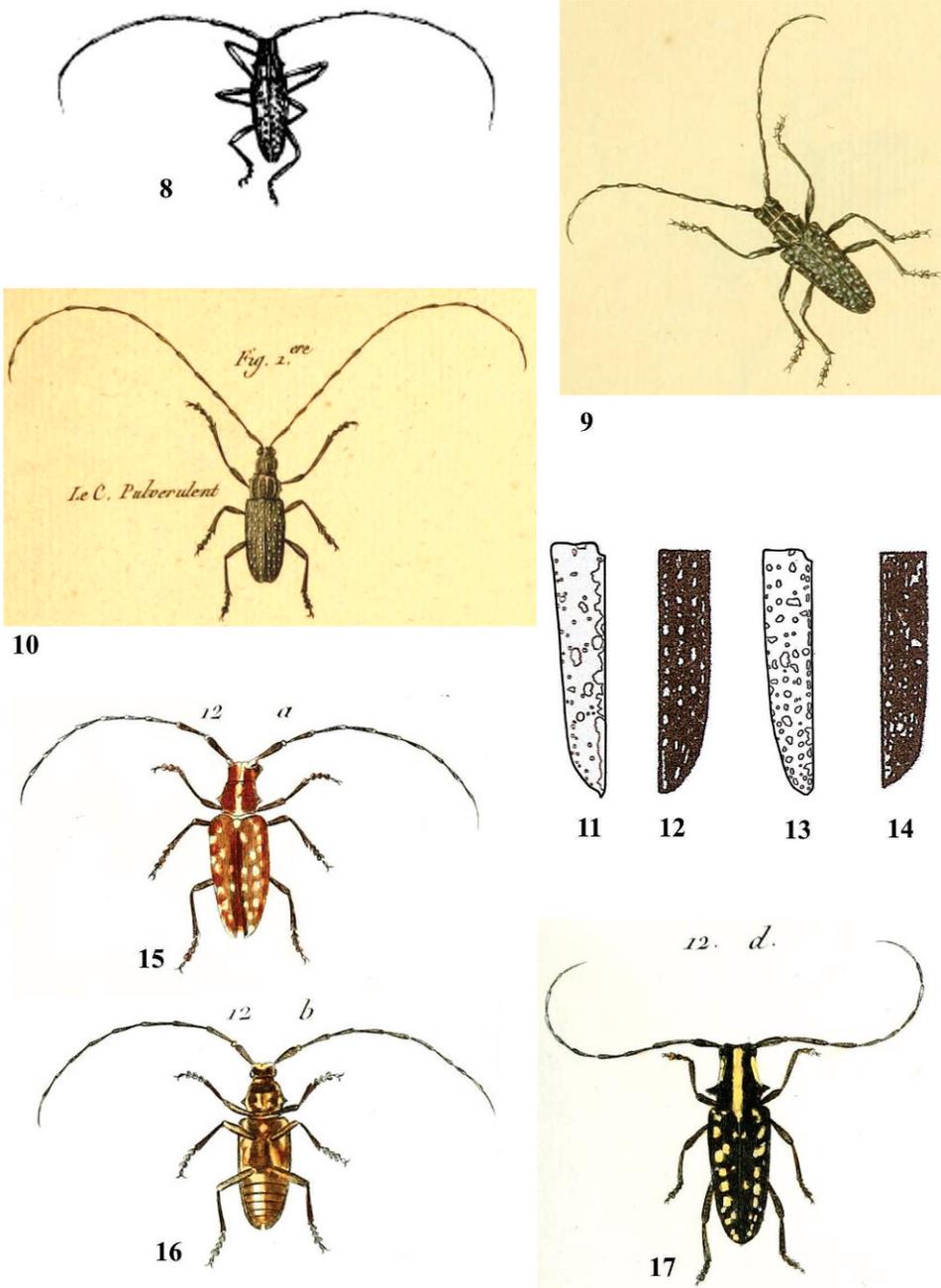
Drury, App. vol. 2. (nec Linn. S. Nat. 1. 2. 626.)”. Without doubt, the specimen in Drury (1773) does not belong to the genus *Taeniotes*.

Monné (1994) recorded in the bibliographic list for *T. farinosus*: “*Taeniotes cayennensis*; Breuning 1943: 246, fig. 86 (non Linnaeus 1758); 1949: 6 (syn.)”. Likewise, Monné & Hovore (2005, 2006) recorded in the synonymic list of *T. farinosus*: “*cayennensis*; Breuning 1943: 246 (not Thomson 1859)”. Indeed, the description by Breuning (1943) does not agree with those of *T. farinosus sensu auctorum*, but agrees very well with that in Thomson (1859) for *T. cayennensis*. Also, the figure of *T. cayennensis* (Fig. 6) in Breuning (1943) corresponds perfectly to that species. The information on *T. cayennensis* in Monné (1994) and Monné & Hovore (2005, 2006) is based on Breuning (1949), who mistakenly synonymized *T. cayennensis* with *T. farinosus*. We note that Breuning (1949) synonymized *T. cayennensis sensu* Breuning (1943) under *T. farinosus* Linnaeus, 1758, but in Breuning (1961) the synonymy is between *T. cayennensis* Thomson, 1859 and *T. farinosus* Linnaeus, 1758.

Taeniotes pulverulentus

Olivier (1790: 302) described *Cerambyx pulverulentus*: “*Cerambyx thorace rotundato spinoso albo-lineato, elytris piceis punctis innumeris albis*”. Olivier (1790) indicated several references for the species: “*Ent. ou hist. nat. ins. CAPRICORNE, Pl. 7. fig. 46.b.*” (Fig. 7); “*DEG. Mém. ins. tom. 5. pag. 109. pl. 14. fig. I*” (Fig. 8); “*Cerambyx Surinamensis maculosus. VOET. Coleop. pars. 2. pag. 7. tab. 5. fig. 8*” (Fig. 9). Furthermore, Olivier (1790: 303) recorded: “Cet insecte diffère du précédent [*Cerambyx farinosus*], quoique de Geer ne l’ait regardé que comme une variété. Il est beaucoup plus petit. Les antennes sont noirâtres, un peu plus longues que le corps. La tête est noirâtre, avec le tour des yeux, & cinq lignes longitudinales blanches. Le corcelet est muni d’une petite épine de chaque côté; il est noirâtre, avec cinq lignes longitudinales blanches. Les élytres sont d’un brun noirâtre, parsemées de points blancs. Le dessous du corps est noir, avec quelques points blancs sur les côtés de la poitrine & de l’abdomen. Les pattes sont noires. Il se trouve aux Antilles, à Cayenne, à Surinam”.

That description contains several problems, two of which will be discussed in this section and another in the next. The first refers to the citation of the work “*Ent. ou hist. nat. ins. CAPRICORNE, Pl. 7. fig. 46.b.*”. According to Evenhuis (2003), volume 6, part 1, pages 1-368, “livraison” 41, Insectes, of *Encyclopédie Méthodique* was published on November 17, 1790. However, “*Ent. ou hist. nat. ins. CAPRICORNE, Pl. 7. fig. 46.b.*” refers to “*Entomologie, ou histoire naturelle des insectes, avec leurs caractères génériques et spécifiques, leur description, leur synonymie, et leur figure enluminée. Coléoptères*”, dated 1808 and published by Olivier. The text of this work, not mentioned by Olivier (1790), was published on 1795. Still according to Evenhuis (2003): “Olivier returned to France in 1798, but did not immediately participate in the EM. He instead spent the first few of those years concentrating on an account of his travels and writing his own 6-volume *Entomologie*, much of which is a reproduction of material he published previously in the EM”. That information corroborates the impossibility of “*Entomologie...*” having been published before the entry on *Cerambyx pulverulentus* in the “*Encyclopédie Méthodique*”, as is suggested in Olivier (1790). However, it does make clear that at least part of the work was ready years before the publication. Unfortunately, we are not aware of studies on the



Figures 8–17. 8–12, *Taeniotes pulverulentus*: Figure 8. Figure in De Geer (1775). Figure 9. Figure in Voet ([1766–] 1806). Figure 10. Figure in Olivier (1797). Figure 11. Figure in Dillon & Dillon (1941) (corresponds to *T. monnei* sp. nov.). Figure 12. Figure in Breuning (1943) (corresponds to *T. pulverulentus*). 13–14, *Taeniotes farinosus*. Figure 13. Figure in Dillon & Dillon (1941) (corresponds to *T. pulverulentus*). Figure 14. Figure in Breuning (1943) (corresponds to *T. pulverulentus*). 15–17, *Lamia subocellata* in Olivier (1808) (corresponds to *T. farinosus*). Figure 15. Plate 2, fig. 12a. Figure 16. Plate 2, fig. 12b. Figure 17. Plate 13, fig. 12d.

dates of the publication of “Entomologie...” that clarify the actual dates of publication, especially of the plates. Until the date of publication of each part of the text and plates can be clarified, the date printed on each volume must be accepted, that is, Olivier (1795) for the text and Olivier (1808) for the plates. In the catalogues consulted by us, both parts appear dated on 1795. It is important to note that Fabricius (1801) mentioned the plates of Olivier when he wrote on *Cerambyx subocellatus* (as *C. ocellatus*).

The second problem refers to the type series. As seen above, Olivier (1790) recorded several references when described *Cerambyx pulverulentus*. According to ICZN (1999: Article 72.4.1) the specimens utilized by authors listed by Olivier (1790) belong to the type series. Thus, there are syntypes of *C. pulverulentus* in addition to those that eventually were deposited in Olivier’s Collection: the specimens illustrated on plate 7, fig. 46b, of “Entomologie...” (Olivier 1808) [in the event that it is eventually proven that date of publication of the plate is prior to the date of publication of the description of the species in Olivier (1790)]; the specimen figured on the plate 14, fig. 1, in De Geer (1775); and that of the work of Voet ([1766–] 1806: plate 5, fig. 8). Usually, the specimens of De Geer’s Collection are considered lost. We know that at least some specimens from Olivier’s Collection survived and are deposited in the Hunterian Museum (Zoology) (Glasgow University, Glasgow, United Kingdom). In addition, Cambefort (2007) recorded: “Olivier rassemble aussi une importante collection particulière, qui est vendue quelques années après sa mort. Auguste Chevrolat et Louis de Jousselein se la partagent exactement, individu par individu. Peu après, Ernest Olivier (ci-après) peut acquérir la moitié Jousselein. Elle demeure dans la famille Olivier jusqu’en 1995, date à laquelle celle-ci décide de la déposer au laboratoire d’Entomologie. Plusieurs parties de la moitié Chevrolat y étaient entrées auparavant, avec la collection de ce dernier, via un certain nombre d’intermédiaires (voir à Chevrolat). D’autres parties figuraient dans la collection Geoffroy” [Olivier also formed an important private collection that was sold a few years after his death. Auguste Chevrolat and Louis de Jousselein shared it exactly, specimen by specimen. Soon after, Ernest Olivier acquired Jousselein’s half. The collection remained in Olivier’s family until 1995, date in which was decided to deposit it in the laboratory of Entomology. Several parts of Chevrolat’s half had been anteriorly admitted, with the collection of this latter, through some intermediates. Other parts were included in Geoffrey’s Collection].

Regarding De Geer’s Collection, there are specimens identified as *Taeniotes pulverulentus* in the collection of the Swedish Museum of Natural History, but they are not labeled as “TYPUS”. As with *T. farinosus*, any specimens that belonged to De Geer’s Collection would be considered syntypes of *C. pulverulentus*. According to Santos-Silva et al. (2010): “Não sabemos se a coleção de insetos de Voet fazia parte do material adquirido por G. Bakhuisen, mas de acordo com Reichard (1827), essa coleção de insetos permaneceu em La Haye” [We do not know if Voet’s insect Collection was part of the material purchased by G. Bakhuisen, but according to Reichard (1827), this Collection of insects remained in La Have]. The current location of this collection is unknown; however, according to Santos-Silva et al. (2010): “De qualquer forma, com relação à *Polyrhaphis spinosa*, o nome utilizado por Voet (*op. cit.*) ([1766–]1806), só apareceu após 1776 porque, de acordo com Beckmann (*op. cit.*) [1776], nesse ano a obra só incluía 14 espécies em *Cerambyx* e

oito páginas...”. By this statement, we can conclude that the plate where “*Cerambyx Surinamensis maculosus*” was figured was published between 1766 (year of beginning of the work) and 1776. It is important to note that the names in Voet ([1766–] 1806) have no nomenclatural status (Santos-Silva et al. 2010).

As with the drawings of *Cerambyx farinosus* in Olivier (1797) and Olivier (1808), the same drawing of *Cerambyx pulverulentus* was used in Olivier (1808) (Fig. 7) and Olivier (1797) (Fig. 10), but the second figure appears to have been modified in the shape of the pronotum and tibiae.

Occurrences of Taeniotes pulverulentus. The third problem with the original description of *T. pulverulentus* refers to the geographical distribution mentioned by Olivier (1790): “Il se trouve aux Antilles, à Cayenne, à Surinam”. Monné (2005) recorded *Taeniotes farinosus* (including *T. pulverulentus* as a synonym) from: “Costa Rica to Brazil, Ecuador, Guadeloupe, Martinique”. Monné’s catalogue (2005) lists only four species and one subspecies in the West Indies. Of these species, *T. leucogrammus* Thomson, 1865 and *T. scalatus* (Gmelin, 1790) show distinctive patterns of elytral pubescence and, thus, cannot be confused with *T. farinosus sensu auctorum* or *T. pulverulentus*. *Taeniotes insularis insularis* Thomson, 1857 and *T. i. gahani* Breuning, 1943 differ primarily by the larger and sparser rounded spots of pubescence on the elytra and by the distinct vitta of pubescence along the elytral suture.

Prior to its synonymization by Tavakilian (1997), *T. pulverulentus* was recorded several times from the West Indies [e.g., Gahan (1895), Leng & Mutchler (1914), Breuning (1943)]. Monné (2005), as seen above, included the West Indies in the distribution of *T. farinosus*, apparently based on the inclusion of *T. pulverulentus* as a synonym. However, all of these citations merely repeat the original place of origin stated by Olivier (1790) and do not cite any additional material examined.

Dillon & Dillon (1941) affirmed that *T. farinosus* is “found in most northern South America, except Venezuela and Colombia” and that *T. pulverulentus* is “Broadly distributed from lower Central America and over most of northern South America”. These same authors listed the type locality of *T. pulverulentus* as “Cayenne”. This is evidently an error, because the species was described from three different localities (“Antilles, à Cayenne, à Surinam”) and no lectotype has been designated for the species.

Villiers (1980) stated that *T. pulverulentus* occurs from Costa Rica to Paraguay and added: “Martinique – cité sans précision d’après un seul exemplaire de la collection Dejean” [cited in Gahan 1895]; “Guadeloupe – cité sans précision, présence très douteuse” [cited in Leng & Mutchler 1914].

Indeed, based on the numerous problems of identification of the species involved (*T. pulverulentus* and *T. farinosus sensu auctorum*, and other similar species), it is impossible to know without examination of all specimens mentioned in the literature what effectively is the geographical distribution of *T. pulverulentus*.

Comparisons Among Figures of Taeniotes farinosus and T. pulverulentus. Comparing the figures of *T. farinosus* and *T. pulverulentus* in Olivier (1797, 1808) (Figs. 2, 5, 7, 10), De Geer (1775) (Figs. 3, 8) and Voet ([1766–] 1806) (Figs. 4, 9), it is possible to infer that they represent a single species. The description by De Geer (1775) make clear that the elytral spots in the specimen that he considered possibly a male of *Cerambyx farinosus* (Fig. 8) or closely related species are small, while in *C. farinosus* (Fig. 3) they are more or less larger. This was one of the differences used by

Olivier (1790) to separate the two species. However, we have confirmed that the size and pattern of pubescent elytral maculae in *T. pulverulentus* show considerable variation. We believe that this variation explains the differences in the drawings (Figs. 2–5, 7–10) and the differences pointed out by Olivier (1790) to separate *T. farinosus sensu* Olivier (1790) from *T. pulverulentus*. Even the drawings of *T. farinosus* in Olivier (1797, 1808), despite differing notably from each other, must be considered as specimens of *T. pulverulentus*, primarily because Olivier (1790) indicated more accurate drawings [De Geer (*l.c.*); Voet (*l.c.*)] of *T. farinosus* and *T. pulverulentus* that differ among each other only slightly.

Evenhuis (2003) affirmed that the “Livraison 61”, “Part 18”, “Plates 166–268” (“text”) was published on “9 February 1797”. However, this does not establish the date of publication of the plates. Moreover, the volume of the “Tableau Encyclopédie et Méthodique – Dix- Huitième Partie” consulted by us, which lacks text explanation of the figures, is dated “M. DCC. XCVII” and contains the following note in the beginning: “Nous nous proposons de donner quelques feuilles du Texte des Planches d’ *Insectes*; mais l’Auteur a jugé plus convenable de donner de suite le Texte qui concerne ces Planches, afin d’avoir le temps d’y mettre plus de perfection, de méthode & d’exactitude. Nous répétons ici ce que nous avons souvent dit aux Souscripteurs: nous les invitons à ne faire relier aucun volume de Planches, parce que nous leur indiquerons l’ordre essentiel à suivre pour ne pas confondre une partie des Planches d’ *Histoire Naturelle* avec une autre, par exemple celles des *Insectes* avec celles qui appartiennent aux *Vers*, &c.” [We proposed to give a few pages of text on insects’ plates; but the author has thought more convenient to give posteriorly the text on the plates, to have time to put more perfection, method and accuracy. We repeat here what we have often said to subscribers: we invite them for not to connect any volume of the plates, because we will indicate the essential order to follow for not to confuse a part of the plates of Natural History with other, for instance, those of the insects with those of the worms, etc].

Comparison of Taeniotus farinosus and T. pulverulentus. Dillon & Dillon (1941) separated *T. farinosus* from *T. pulverulentus* in couplet “20” of the key to the species of *Taeniotus* by “Head with seven vittae”, leading to *T. farinosus* and “Head with five vittae”, to *T. pulverulentus*. They also figured the elytra of both species. However, the elytral drawing of *T. pulverulentus* (Fig. 11) does not correspond to the species described by Olivier (1790), which, although very similar, does not show the pubescent vitta along the elytral suture. Indeed, the elytral drawing of *T. farinosus* (Fig. 13) in Dillon & Dillon (1941) agrees with *T. pulverulentus*, while the drawing of the elytron of *T. pulverulentus* corresponds to that of *T. monnei* **sp. nov.** described below.

Breuning (1943) redescribed and illustrated the elytra of *T. farinosus* (Fig. 14) and *T. pulverulentus* (Fig. 12). According to him, *T. pulverulentus* differs from *T. farinosus* by: smaller length (a quite variable character); antennae in male 2.5 times longer than body (two times longer in *T. farinosus*) (another variable character; we have examined specimens with antennal length from 2.1 to 2.8 times the body length); antennomere III a little less than three times the length of the scape (most specimens studied by us have the antennomere III approximately 2.3 times the length of the scape); antennomere III more densely granulated at the base and more distinctly punctate in the remainder (a variable character); elytra in female rounded at apex (the shape of the elytral apex in females of *T. farinosus* was not specified); elytra in male with short acute apical lobe (although this is not visible in the elytra

figured by the author. Also, according to the author it is slightly longer in *T. farinosus*, but this is a somewhat variable character in *T. farinosus*); elytra in male narrower at humeri (a slightly variable character in the males examined by us); lateral spines of the prothorax short and rounded at apex (all specimens examined by us show the tubercle more or less acute, although length is highly variable). Based in those observations, we believe that *T. farinosus* and *T. pulverulentus sensu* Breuning (1943) represent a single species: *T. pulverulentus*.

Synonymization of T. pulverulentus with T. farinosus in the Literature. Tavakilian (1997: 132) synonymized *T. pulverulentus* under *T. farinosus*: “Olivier drawing representing *Cerambyx pulverulentus* closely resembles the species commonly collected in Cayenne. Linné’s *farinosus*, which is neither in the London Linnean Society nor in Gustave-Adolphe’s collection in Uppsala, has in fact no type. Linné mentioned after his laconic description the corresponding published illustration in Sybille Meriam’s book published in 1719 (table 24, f. *infima*) and another reference published by Degeer before the tenth edition of Linné’s *Systema Naturae*. The iconotype belongs to the prelinnean litterature [sic]. I ignore what is to be done in this case. I consulted this very rare book with colored plates and I am certain that *C. pulverulentus* is a synonym of *C. farinosus* and their localities (Suriname and Cayenne) confirm the synonym. The species is very common on the introduced breadfruit tree *Artocarpus altilis* (S. Parkinson) Fosberg (Moraceae). I do not understand why these two taxa were considered as different by all authors, except for Bates who had already reported the synonym (1865b: 110)”.

In reality, it is not possible to confirm that Bates (1865) synonymized the two species. As seen, *T. pulverulentus* was described by Olivier (1790); however, Bates (1865) did not mention this work but rather the subsequently published one (Olivier 1808). Thus, it is only possible to confirm that Bates (1865) considered the figure of *T. pulverulentus* in Olivier (1808) as *T. farinosus*. It is important to observe that the figures of *T. farinosus* (Fig. 2) and *T. pulverulentus* (Fig. 7) in Olivier (1808) differ considerably. Besides, the synonymy should not be credited to Bates (1865), but rather Thomson (1859) who indicated for *T. farinosus*: “*TAENIOTES pulverulentus*, Oliv., Ent.”. Neither Thomson (1859) nor Bates (1865) listed *T. pulverulentus* as a valid species; however, in the case of Thomson (1859) it is possible to affirm that he considered *T. farinosus* as a synonym of *T. pulverulentus* by his inclusion of the latter in his key to the species. Subsequent to Thomson (1859) and Bates (1865), however, Redtenbacher (1867) listed *T. pulverulentus* as a valid species from Brazil (Rio de Janeiro), apparently unaware of the previous synonymy. No subsequent author mentioning this species and *T. farinosus* until Tavakilian (1997) commented on the synonymy except Lacordaire (1869: 323), who formally indicated the synonymy (although also indicating *T. pulverulentus* described as “Entomologie, or ...”). Although we disagree that *T. farinosus* (Linnaeus 1758) is a synonym of *T. pulverulentus*, we do agree that the latter is synonymous with *T. farinosus sensu auctorum*. Thus, in this way, Tavakilian (1997) was right.

Regarding the affirmation by Tavakilian (1997) on the absence of types of *T. farinosus*, because they are not present in the institutions where the Linnaeus’ types are deposited, it is possible to affirm two things: 1) Linnaeus (1758) already had suggested that he had only seen the figure in Merian (1719) and the specimens from De Geer’s collection [a citation that Tavakilian (1997) confused with reference for a work of Linnaeus, published before 1758]; and 2) as seen above, both the specimen

figured by Merian (1719) as those that belonged to De Geer's collection are syntypes of *T. farinosus*. Tavakilian (1997) also affirmed that "The iconotype belongs to the prelinnean literature [sic]. I ignore what is to be done in this case". Indeed, the ICZN (1985: Article 73, b, i), that was in force in the time in which Tavakilian (1997) did the synonymy made clear that the specimens mentioned above are syntypes.

It is difficult to know which species Tavakilian (1997) confused with *T. farinosus*, but regardless the true *T. farinosus* is not the same species as *T. pulverulentus* and, accordingly, this latter must be revalidated.

The differences pointed out by Dillon & Dillon (1941) to separate *T. farinosus* from *T. pulverulentus*, usually consistent in species of *Taeniotes*, were not commented on by Tavakilian (1997). However, as seen above, *T. pulverulentus sensu* Dillon & Dillon (1941) does not correspond to the species described by Olivier (1790).

Designation of a Lectotype for Taeniotes farinosus. *Taeniotes farinosus sensu* Olivier (1790, 1795, 1797, 1808) and De Geer (1775), evidently the base for the present identification of the species, is a mistake. Even if the specimens from De Geer's Collection mentioned by Linnaeus (1758) correspond to a species different from that illustrated by Merian (1719), there is no question that the latter must prevail because it is an illustrated specimen and, more importantly, the difficulty in proving which of the specimens in De Geer's Collection were mentioned by Linnaeus (1758).

To establish the identity of *Taeniotes farinosus*, we designate as **LECTOTYPE** the specimen figured by Merian (1719) (Fig. 1), from Suriname (ICZN 1999: Article 74.4).

Lamia subocellata Olivier, 1792. At this point, it is necessary to introduce an additional complication. Olivier (1792) described *Lamia subocellata* from the Collection of Jean Gigot d'Orcy, without any indication of origin. According to Monné (2005), the holotype of *L. subocellata* is deposited in the Naturhistorisches Museum (Wien, Austria). Monné (2005) also listed the geographical distribution of the species as "Guyanas, Brazil (Amazônia, Espírito Santo, Rio de Janeiro)".

Looking at the figures in Olivier (1808) (Figs. 15–17) and the brief description in Olivier (1792), and comparing with the figure in Merian (1719) (Fig. 1), there is no doubt that they belong to the same species. Here we express the same degree of surprise expressed by Tavakilian (1997), but in opposite way: we cannot understand how it was possible to confuse two such distinctive species that are easily discerned by their illustrations. Disregarding the description in Voet ([1766–] 1806), the initial mistake apparently was by De Geer (1775). Without doubt, Olivier (1790) took into account the description and illustration in that work for his concept of *C. farinosus* and, as a result, his description of *C. pulverulentus*. Characters that differ notably between *C. farinosus* and *L. subocellata* are the size of the pubescent elytral spots (very large in the latter) and the shape of the central vitta on the head and pronotum (considerably wider in *L. subocellata*). It is possible to see these features of *L. subocellata* in the figure by Merian (1719), which clearly shows the ocellar spots of pubescence on the elytra.

Guérin-Méneville (1844) recorded: "Le genre *Taeniotes* de M. Serville a été enrichi d'une belle espèce décrite par M. Delaporte (Buff. Dumesnil, Ins. t. 2, p. 479) sous le nom de *Monochamus decoratus*, mais qui n'est que le *Cerambyx subocellatus* d'Olivier, n° 67, p. 69, 89, pl. 2, f. 12 a. b (individu passé ou mal éclos) et pl. 13, f. 12 d" [The genus *Taeniotes* Audinet-Serville was enriched by a beautiful species

described by Mr. Delaporte under the name of *Monochamus decoratus*, but which is the *Cerambyx subocellatus* d'Olivier, n° 67, p. 69, 89, pl. 2, f. 12 a. b (specimen bad or poorly eclosed) and et pl. 13, f. 12 d]. The figure "12d" of the plate 13 (Fig. 17), really appears in Olivier (1808) as "Cerambyx suboculé", but it is not mentioned, for instance, in Monné (2005).

Taeniotes parafarinosus Breuning, 1971 and *T. guttularis* Schwarzer, 1929. Among the species currently included in *Taeniotes*, only *T. cayennensis*, described from French Guiana, and *T. orbignyi* Guérin-Méneville, 1844, described from Bolivia, can be confused with *T. farinosus* (*sensu auctorum*) (= *T. subocellatus*), primarily by the size of the elytral spots and width of the central vitta on the head and pronotum. The first differs from *T. farinosus* by the elytral spots being smaller and a slightly more numerous, while the second differs still more by the narrower central vitta of the head and pronotum, by the elytral spots more numerous and intercalated with very small spots, and by the presence of a vitta on the distal fourth of the elytra.

Schwarzer (1929) described *Taeniotes guttularis* (Figs 18, 19) from Bolivia, but Breuning (1943) considered it to be only a form of *T. farinosus* and, therefore, a synonym of the latter. Examining the description and figures (male and female) in Schwarzer (1929), it is possible to conclude without doubt that *T. guttularis* is not a synonym of the true *T. farinosus*, but rather *T. pulverulentus*.

Laporte (1840) described *Monochamus decoratus* from Brazil. Thomson (1859) transferred this species to *Taeniotes*, and Breuning (1943) considered it as an aberration of *T. subocellatus*.

Later, Breuning (1971) described *T. parafarinosus*, also from Bolivia. Seeing photos of the holotype of that species (Figs. 20, 21), sent by J. Willers (Museum für Naturkunde der Humboldt-Universität, Berlin, German), it is possible to see that it is identical to the female of *T. guttularis* illustrated by Schwarzer (1929) [and synonymized by Breuning (1943)]. Thus, *T. parafarinosus* also is a junior synonym of *T. pulverulentus*. The differences pointed out by Breuning (1971) between *T. parafarinosus* and *T. farinosus* (*sensu auctorum*), such as punctation on the head and pronotum, shape of the lateral tubercles of the prothorax and pilosity on the pronotal disc, are rather variable characters in *T. pulverulentus*.

CONCLUSIONS

In summary, we conclude that:

1. *Cerambyx pulverulentus* Olivier is not a synonym of *Cerambyx farinosus* Linnaeus;
2. *Cerambyx farinosus sensu* De Geer (1775) is not equal to *C. farinosus* Linnaeus;
3. *Cerambyx farinosus sensu* Olivier (1790, 1795, 1797, 1808) is not equal to *C. farinosus* Linnaeus;
4. *Cerambyx Paramaribous maculosus* in Voet ([1766–]1806) is not equal to *C. farinosus* Linnaeus;
5. *Taeniotes farinosus sensu* Dillon & Dillon (1941) is not equal to *C. farinosus* Linnaeus;
6. *Taeniotes pulverulentus sensu* Dillon & Dillon (1941) is not equal to *C. pulverulentus* Olivier;
7. *Lamia subocellata* Olivier (= *Taeniotes subocellatus*) is a junior synonym of *Cerambyx farinosus* Linnaeus (= *T. farinosus*), **syn. nov.**;

8. *Taeniotes guttularis* Schwarzzer is a junior synonym of *T. pulverulentus* Olivier, **syn. nov.**;
9. *Taeniotes parafarinosus* Breuning is a junior synonym of *T. pulverulentus* Olivier, **syn. nov.**

CATALOGUE CORRECTIONS

Using the bibliographic references, type localities, depository institutions and geographic distribution for the species involved recorded in Monné (2005), it can be stated:

Taeniotes farinosus (Linnaeus, 1758)

“Type locality - America. (Depository unknown). Distribution - Costa Rica to Brazil, Ecuador, Guadeloupe, Martinique”.

1. The type locality, although indicated as “America” by Linnaeus (1758), must be considered, for now, as Suriname (present designation of lectotype);
2. The eventual depository institutions of the lectotype and paralectotype(s) (if the specimens still exist) remain unknown;
3. The geographic distribution is that recorded in Monné (2005) for *T. subocellatus*.

“*Cerambyx farinosus* Linnaeus, 1758: 390; 1767: 626; DeGeer, 1775: 108, pl. 14, fig. 1; Fabricius, 1775: 168; 1787: 134; Gmelin, 1790: 1820; Olivier, 1790: 301, pl. 7, fig. 46a; 1795:(67) 50, pl. 7, fig. 46a.”.

1. The citations by DeGeer (1775) and Olivier (1790, 1795), besides the plates, whose effective dates of publication must be considered, respectively, 1797 and 1808, must be transferred to *T. pulverulentus*. As it is not possible to affirm that the descriptions and figures in Olivier (1790, 1795, 1797 and 1808) really correspond to *T. pulverulentus*, those citations must be mentioned in doubt, i.e.: Olivier 1790: 301, pl. 7, fig. 46a (?); 1795:(67) 50, pl. 7, fig. 46a (?);
2. The number of the plate in Olivier (1797) is 210, and not 7;
3. The number of the page in Olivier (1790) is 302.

“*Stenocorus farinosus*; Fabricius, 1792: 295; 1801: 307”.

1. Retained in *T. farinosus*.

“*Lamia farinosa*; Schoenherr, 1817: 387”.

1. Retained in *T. farinosus*.

“*Taeniotes farinosus*; Dejean, 1835: 340 (cat.); Thomson, 1859: 98 (syn.); Fauvel, 1861: 318 (distr.); Bates, 1865: 110; Lacordaire, 1869: 323; Kirsch, 1875: 287 (distr.); Fleutiaux & Sallé, 1889: 468 (distr.); Prudhomme, 1906: 35 (distr.); Faber, 1909: 272 (hosts); Gunther, 1940: 465 (distr.); Dillon & Dillon, 1941: 23, pl. 1, fig. 6; Soukup, 1942: 306 (distr.); Breuning, 1943b: 248, fig. 91; Duffy, 1960: 181 (hosts); Tavakilian, 1997: 132 (syn.); Monné, 2002: 21 (cat. hosts)”.

1. Retained in *T. farinosus*, primarily due to inability of confirm, except Breuning (1943) and Tavakilian, (1997) must be transferred to *T. pulverulentus*.

“*Monochamus (Taeniotes) farinosus*; Laporte, 1840: 479”.

1. Retained in *T. farinosus*;
2. Listed in Blackwelder, (1946) as a synonym of *T. amazonum*.

“*Cerambyx pulverulentus* Olivier, 1790: 302, pl. 7, fig. 46b; 1795:(67) 50, pl. 7, fig. 46b”.

1. Must be transferred to *T. puerulentus*;
2. The number of the plate in Olivier (1797) is 211, not 7.

“*Stenochorus pulverulentus*; Schoenherr, 1817: 407”.

1. Must be transferred to *T. pulverulentus*.

“*Monochamus pulverulentus*; Dejean, 1821: 106 (cat.)”.

1. Must be transferred to *T. pulverulentus*.

“*Taeniotus pulverulentus*; Audinet-Serville, 1835: 91; Redtenbacher, 1867: 182 (distr.); Gahan, 1895: 121 (distr.); Leng & Mutchler, 1914: 448 (distr.); Brèthes, 1920: 46 (distr.); Breuning, 1943b: 248, fig. 92; Zajciw, 1958a: 15, 23 (distr.); Duffy, 1960: 181 (larva); Zajciw, 1968b: 123 (distr.); Silva et al., 1968: 409 (hosts); Villiers, 1971: 346 (distr.); Zajciw, 1972a: 62 (distr.); Viana, 1972: 335 (distr.); Zajciw, 1974a: 71 (distr.); Villiers, 1980c: 558, fig. 83; Chemsak et al., 1992: 112 (cat.); Tavakilian, *in* Hequet, 1996: pl. 14, fig. 1; Tavakilian et al., 1997: 309 (hosts)”.

1. Must be transferred to *T. pulverulentus*;
2. Monné (2005) omitted the citation of *T. pulverulentus* in Dillon & Dillon 1941: 19, pl. 1, fig. 4. Although we do not know for sure which species are involved, the citation must be included in *T. pulverulentus* as “part”.

“*Monochamus (Taeniotus) pulverulentus*; Laporte, 1840: 479”.

1. Must be transferred to *T. pulverulentus*.

“*Taeniotus pulvurentus*; Bosq, 1943b: 109 (distr., error).

Syntype localities - Antilles. Cayenne. Surinam. (Depository unknown)”

1. Must be transferred to *T. pulverulentus*;
2. There are no syntypes or type locality, because the species was an error of identification rather than a description.

“*Taeniotus scalaris*; Bondar, 1913b: 9, 3 figs. (biol.); Lima, 1923: 188 (hosts); 1927: 185 (hosts); Andrade, 1927: 72 (hosts); Lima, 1930: 66 (hosts); Bondar, 1931b: 149 (hosts); Fonseca, 1934: 272 (hosts); Lima, 1936: 311 (hosts); Bondar, 1938a: 2177, 2286, figs. (biol.); Silva & Almeida, 1941: 69, fig. 25; Carvalho & Carvalho, 1941: 52 (distr.); Zikán & Zikán, 1944: 24 (distr.); Bridarolli, 1944: 57 (distr.); Lepage & Figueiredo, 1946: 20 (hosts); Monte, 1953: 757; Lima, 1955: 119 (hosts); Buck, 1959: 597 (distr.); Maranhão, 1962: 8 (hosts); Piza, 1968: 18 (distr.); Silva et al., 1968: 409 (hosts) (not Fabricius, 1781)”.

1. Must be transferred to *T. pulverulentus*.

“*Taeniotus guttularis* Schwarzer, 1929: 364, figs. 16, 17”.

1. Must be transferred to *T. pulverulentus*.

“*Taeniotus pulverulentus* m. *guttularis*; Breuning, 1943b: 248.

Type locality - Bolivia, Santa Cruz: Buenavista. (SMFD)”

1. Must be transferred to *T. puerulentus*;

2. There is no type locality, because the species described by Schwarzer was just considered a morph (thus, just a synonym) of *T. pulverulentus*.
3. According to ICZN (1999: Article 45.6.2): “It is deemed to be infrasubspecific if its author used one of the terms “aberration”, “ab.” or “morph”. Thus, it is not possible to say that Breuning (1943) considered *T. gutullaris* as a subspecies of *T. pulverulentus*.”

“*Taeniotes parafarinosus* Breuning, 1971

Type locality - Bolivia. (ZMHB). Distribution - Bolivia.

Taeniotes parafarinosus Breuning, 1971c: 287”.

1. Must be transferred to *T. pulverulentus*.

Taeniotes subocellatus (Olivier, 1792)

“Type locality - not stated. (MHNG). Distribution - Guyanas, Brazil (Amazônia, Espírito Santo, Rio de Janeiro).

Lamia subocellata Olivier, 1792: 459, pl. 2, figs. 12a, b; Schoenherr, 1817: 387”.

1. Must be transferred to *T. farinosus*;
2. The date of the publication of the plate is 1808 and was not published in the “Encyclopédie Méthodique”, it was published in the “*Entomologie, ou histoire naturelle des insectes*”.

“*Cerambyx (Lamia) subocellatus*; Olivier, 1795:(67) 69, pl. 2, figs. 12a, b”.

1. Must be transferred to *T. farinosus*;
2. The date of the publication of the plate is not the same as the text. To use “Olivier (1808)”; it is necessary to add “plate 13, figure 12d [Olivier (1808)]”.

“*Monochamus subocellatus*; Dejean, 1821: 106 (cat.)”.

1. Must be transferred to *T. farinosus*;
2. Dejean (1821) also mentioned *M. ocellatus*, attributing this species to Fabricius. Both species were recorded from “Cayennae” in this work.

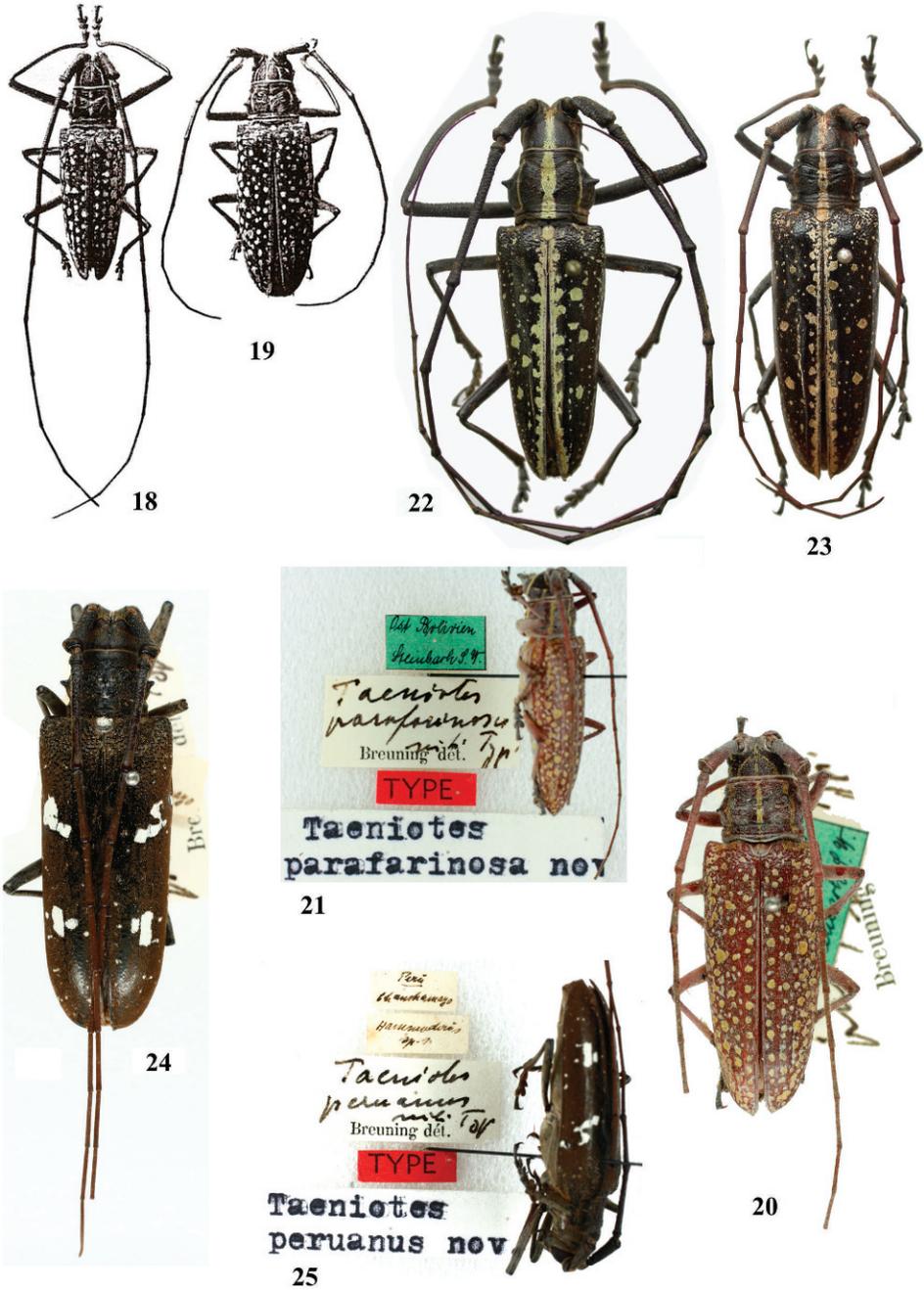
“*Taeniotes subocellatus*; Audinet-Serville, 1835: 91; Guérin-Méneville, 1844: 243 (syn.); Thomson, 1859: 97; 1864: 77; Lacordaire, 1869: 323; Bodkin, 1919: 268 (distr.); Dillon & Dillon, 1941: 39, pl. 1, fig. 20; Breuning, 1943b: 243 (rev.); Zajciw, 1961c: 531 (distr.); Villiers, 1971: 345 (distr.); Tavakilian *in* Hequet, 1996: pl. 14, fig. 2 (hosts); Monné, 2002: 23 (cat. hosts)”.

1. Must be transferred to *T. farinosus*.

“*Cerambyx ocellatus* Fabricius, 1801: 272; Zimsen, 1964: 165 (type)”.

1. Must be transferred to *T. farinosus*;
2. Fabricius (1801) was not describing a new species. This is evident by the two plates in Olivier (1808). Thus, the correct citation would be: *Cerambyx ocellatus*; Fabricius 1801: 272 (error). As Fabricius (1801) was not formally correcting the name proposed by Olivier (1792), the name “ocellatus” is not an emendation (ICZN: Article 33.2). Accordingly, “ocellatus” is an incorrect subsequent spelling (ICZN: Article 33.3) and, therefore, has no nomenclatural validity. Thus, the citation of “type” in Zimsen (1964) is a mistake.

“*Taeniotes ocellatus*; Dejean, 1835: 340 (cat.); Erichson *in* Schomburgk, 1848: 574 (distr.).



Figures 18–25. 18–19, *Taeniotes guttularis* in Schwarzer (1929): Figure 18. Syntype male. Figure 19. Syntype female. 20–21, *T. parafarinosus*, holotype female: Figure 20. Dorsal view. Figure 21. Lateral view and labels. 22–23, *T. monnei* sp. nov.: Figure 22. Holotype male. Figure 23. Paratype female. 24–25, *T. peruanus*, holotype male: Figure 24. Dorsal view. Figure 25. Lateral view and labels. Photos 20, 21, 24, and 25 by J. Willers.

Type locality - America meridionali (ZMUC)".

1. Must be transferred to *T. farinosus*;
2. Dejean (1835) mentioned both *Taeniotes ocellatus*, attributed to Fabricius, and *T. subocellatus*, attributed to Olivier. Thus, this author considered both species as distinct, recording the former from Suriname and the latter from French Guiana. As seen above, the name "ocellatus" has no nomenclatural validity, so the citation of "Type locality" in Monné (2005) is incorrect. Additionally, Dejean (1835) did not record *T. ocellatus* from "America meridionali".

"*Monochamus (Taeniotes) decoratus* Laporte, 1840: 479".

1. Must be transferred to *T. farinosus*.

"*Taeniotes decoratus*; Thomson, 1859: 97; Bates, 1865: 109; Redtenbacher, 1867: 182 (distr.); Lacordaire, 1869: 323; Chenu, 1870: pl. 25, fig. 5; Gunther, 1940: 465 (distr.); Dillon & Dillon, 1941: 37, pl. 1, fig. 19; Monte, 1954: 737; Buck, 1959: 597 (distr.); Piza, 1968: 18 (distr.)".

1. Must be transferred to *T. farinosus*.

"*Taeniotes subocellatus* ab. *decoratus*; Breuning, 1943b: 243; Zajciw, 1974a: 71 (distr.).

Type locality - Brazil. (Depository unknown)"

1. Must be transferred to *T. farinosus*;
2. Breuning (1943) did not describe a new species, subspecies, or even an aberration, when he mentioned *Taeniotes subocellatus* ab. *decoratus*. We here confirm that the species described by Laporte (1840) is an aberration of *T. subocellatus*. Thus, there is no type or type locality.

In addition to the references listed above and in Monné (2005), others that can be attributed to *T. farinosus* include: Ducan 1835: 253, est. 25, fig. 2; Blackwelder 1946: 594 (checklist); Breuning 1961: 329 (recorded as *T. subocellatus*); Morvan & Morati 2006: 46, est. VI (recorded as *T. subocellatus*); and to *T. pulverulentus*: Blackwelder 1946: 594; Martins et al. 2009: 242 (recorded as *T. farinosus*).

Taeniotes monnei, **sp. nov.**

(Figs. 22, 23)

Taeniotes pulverulentus; Dillon & Dillon 1941: 19 (parte), est. 1, fig. 4.

Taeniotes amazonum; Breuning 1943: 245, fig. 85.

Diagnosis. Similar to *T. amazonum* Thomson, 1857 and *T. affinis* Breuning, 1935, but differs as follows: lateral pubescent vittae on pronotum distinctly surpassing the level of the lateral tubercles of the prothorax; lateral vitta between the posterior edge of eyes and mesothorax finer, mainly on the prothorax (in this area, the length of the vitta is equal to approximately eight times the largest width); patches of pubescence on the sides of the urosternites I-IV, in general, separated; elytral apex, in general, distinctly projected as a short spine in both sexes; punctiform patches of pubescence on the elytra more abundant. In *T. amazonum* and *T. affinis*: lateral pubescent vittae of the pronotum do not extend beyond the level of the lateral tubercles of the prothorax; lateral vitta between the posterior edge of eyes and mesothorax wider, mainly on the prothorax (in this area, the length of the vitta is equal to

approximately four times the largest width); patches of pubescence on the sides of the urosternites I-IV, in general, interconnected; elytral apex rounded or, at most (in males), slightly projected, but without spine; punctiform patches of pubescence on the elytra sparser. From *T. scalatus* (Fabricius, 1781) it differs in the same characters pointed out for *T. affinis*, except the lateral pubescent vittae on the pronotum, absent in *T. scalatus* [according to Breuning (1943), present or absent in *T. affinis*], and by the elytral sutural pubescent vitta wider and laterally less irregular (in general, very irregular in *T. monnei*). From *T. pulverulentus* it differs, mainly, by the presence of sutural vittae on the elytra (absent in *T. pulverulentus*).

Male (Fig. 22). Integument black; pubescence white with some areas more yellowish. Frons sub-flat, rough (mainly on the half nearer of the antennal tubercles); pubescence very short, abundant and whitish (except laterally and part of central area). Area between the antennal tubercles with narrow vitta of yellowish-white pubescence beginning at middle of frons, fused to pubescent vitta on vertex. Vertex with wide vitta of yellowish-white pubescence beginning at base of antennal tubercles, surrounding apex of superior ocular lobes and extending towards prothorax; area on each side of vitta wholly microsculptured, moderately coarsely confluent punctate, covered with short, whitish and moderately abundant pubescence, except on rather large area from base to about middle where punctures are coarser, not confluent and deeper and pubescence is sparser; area close to superior ocular lobes with some long, brownish bristles. Area behind inferior ocular lobes coarsely, shallowly punctate, gradually less conspicuous towards prothorax; pubescence short, whitish, moderately abundant. Hypostomal area with short, whitish, moderately abundant hairs. Gula and its lateral areas smooth, glabrous shining. On each side of head: one vitta of yellowish pubescence, beginning at about middle of anterior edge of superior ocular lobe, descending and widening towards inferior ocular lobe, surrounding it up to lateral extremity of clypeus, extending up to prothorax across gena (with wide projection towards the hypostomal area); oblique vitta of yellowish pubescence beginning at connection of ocular lobes and ending close to prothorax. Clypeus finely punctate, glabrous laterally, with short, yellowish-white abundant pubescence on central region close to epistomal suture, short and sparse on central region, short and abundant near anteclypeus, gradually and distinctly longer laterally; lateral areas with some long, fine and black bristles. Anteclypeus smooth, shining, translucent, glabrous. Labrum with abundant, white-yellowish pubescence on sub-horizontal region; glabrous on subvertical region; sub-horizontal region, on each side, with two black, coarse, very long bristles, especially the most outer. Distance between superior ocular lobes equal to the width of one lobe; distance between inferior ocular lobes about 1.5 times width of one lobe (in frontal view). Antennae about 2.8 times as long as body length. Scape rugose, mainly on ventral side; reaching anterior edge of prothorax; basal width 0.8 times the largest width. Antennomere III rugose, three times as long as scape.

Lateral spiniform tubercles of the prothorax proportionally short, apex subacute. Area beneath lateral spiniform tubercles with moderately narrow pubescent vitta, continuing to behind eyes. Area over this last vitta with concentric striae surrounding the lateral spiniform tubercle. Pronotum with well marked but weakly impressed transverse sulcus; lateral gibbosities large, rounded, not separated from lateral spiniform tubercles of the prothorax, gradually diminishing towards basal transverse sulcus; central region with wide vitta of whitish pubescence (with some areas more yellowish), continuing onto vertex of head; on each side, a narrow vitta of

yellowish-white pubescence beginning at basal transverse sulcus and ending at distal transverse sulcus; gibbosities coarsely, moderately, deeply punctate on basal half (vermiculate in appearance) and finely, transversely striate on posterior half (mainly on distal third); pubescence, around sutural vitta, very short (abundant in some areas). Prosternum with fine, transverse striae; on each side a vitta of yellowish-white pubescence, only moderately dense, beginning at level of genal apex and extending obliquely towards prosternal process, where they merge and cover most of prosternal process. Metepisternum with yellow pubescent vitta continuing from that under the lateral spiniform tubercle of the prothorax, wider close to prothorax and gradually narrowed towards mesepimerum. Mesepimerum covered with dense yellowish pubescence, less dense than vitta. Metepisternum with triangular area of dense, yellowish pubescence from base to about middle and another small area with similar pubescence on distal extreme; remaining areas with short, whitish pubescence. Metasternum with wide longitudinal vitta of yellowish pubescence continued from that of basal region of metepisternum, merging at apex with that on distal part of metepisternum; remaining areas with short, whitish pubescence.

Scutellum with wide, yellowish-white central vitta of pubescence. Elytra moderately finely punctate in circumscutellar area, gradually finer towards apex; humeral area with small tubercles; sutural area with yellowish-white vitta of pubescence (with some more distinct yellowish areas), from which emerge short and irregular (in shape and size) projections; central third between sutural vitta and beginning of the lateral areas of elytra with irregular punctures of yellowish pubescence (outlined or not with white pubescence); area closer to epipleuron on basal two-thirds with small dots of yellowish-white pubescence, smaller than those on disc; remaining areas with small dots yellowish-white pubescence. Elytral sutural angle projected. Ventrites I-IV on each side with sub-rounded or oblong area of compact yellowish-white pubescence; ventrite V laterally with elongated vitta of yellowish-white pubescence; remaining areas of the ventrites with short, whitish pubescence. Forelegs approximately as long as body; profemurs and protibiae with denticles on ventral surface; protibiae narrow and strongly curved.

Female (Fig. 23). Differs from male primarily by the shorter antennae (approximately 1.5 times longer than body); antennomere III about twice the length of scape; shorter forelegs (0.7 times body length); and protibiae curved on distal third.

Variation. integument brownish. Males—dorsal pubescent vitta of the head yellowish; pubescence of the clypeus whitish; pubescence of the sub-horizontal region of the labrum sparse; sub-horizontal region of the labrum with additional and finer black bristles (in addition to the two already noted); pubescent vitta beneath inferior ocular lobes broken on middle of the gena, and region between the gena and hypostomal area with triangular area of pubescence; vitta of pubescence beneath inferior ocular lobes does not reach the edge of the prothorax; projection of the pubescent vitta beneath inferior ocular lobes towards the hypostomal area absent or very small (isolated or not); antennae from 1.8 times (very small specimens) to 2.8 times (larger specimens) length of body; scape slightly surpasses the anterior edge of the prothorax; pubescent vitta on the pronotum wholly yellowish; lateral pubescent vitta on the prothorax wide; striae of the prosternum only slightly conspicuous; pubescent vitta on the prosternum only surrounding the lateral edges of the prosternal process; pubescent vittae on the prosternum slightly distinct in area closer to the head; pubescent vitta of the scutellum yellowish; vittae and circles of elytral pubescence distinctly

yellowish; apical third of elytral sutural pubescent vitta wholly or partially absent; apical third of elytra without dots of pubescence; longitudinal vitta of yellowish pubescence on the metasternum not merged at its apex with that on distal part of the metepisternum; length of the forelegs from slightly shorter to slightly longer than body; denticles of the profemurs and protibiae absent or slightly conspicuous. Females—coloration of the pubescence as in males; pubescent vitta surrounding the eyes beginning only at middle of the inferior ocular lobe; antennae from 1.4 to 1.5 times the body length.

Dimensions in mm (Male/Female). Total length, 17.6–35.9/19.3–35.8; prothorax: central length, 3.0–6.4/3.0–5.5; width (between the apices of the lateral tubercles), 4.1–9.2/4.7–9.1; humeral width, 4.5–9.7/5.0–10.0; elytral length, 12.0–23.7/13.7–25.5. The largest dimensions are those of the holotype.

Remarks. The elytron of *T. pulverulentus* figured in Dillon & Dillon (1941) actually represents *T. monnei*. In the same work, the geographical distribution of *T. pulverulentus* was given as: “Brazil: 14; no locality data. 3; Amazonas. 1; Corcovado, Rio City. 2; Chapada, Mato Grosso. 2; Minas Geraes. 1; Serro, Minas Geraes. 1; Salto Grande, Minas Geraes. 2; Santa Antonio De Barra, Bahia; (Ch. Prijol). 1; Piracicaba River; (P. Germain). 5; São Paulo de Olivença. 4; São Paulo. 1; Cantagallo. 12; Rio de Janeiro. 1; Theresopolis, Sta. Catherina; (Fruhstofer). 7; Blumenau, Sta. Catherina. 1; Rio Grande do Sul”. The true *T. pulverulentus* does not occur in southern and southeastern Brazil. Based on the elytral drawing, redescription and geographical distribution presented in Dillon & Dillon (1941), we conclude that part of the material examined by them corresponds to *T. monnei*. Although we have not examined specimens from the Brazilian state of Mato Grosso (listed by Dillon & Dillon 1941), we believe that *T. monnei* also occurs in this area.

Breuning (1943) redescribed *T. amazonum* and considered *Cerambyx farinosus sensu* Olivier (1795) as a synonym of this species. According to Breuning (1943): “Proche de *scalaris* F., mais toute la tête moins grossièrement ridée et plus distinctement ponctuée...la bande médiane du vertex et du pronotum moins large, celle le long de la suture élytrale très étroite...Les élytres plus densément parsemés de petites taches jaunes; une série de taches rondes plus grandes le long de la suture, et le plus souvent trois taches rondes plus apparentes sur le disque de chaque élytre (une à la fin du quart basilaire, une juste avant le milieu et une au commencement du tiers apical)”. This description does not preclude the possibility that other species, in addition to *T. monnei*, are involved, but we can conclude that it does not belong to the true *T. amazonum*. Besides, the specimens studied by Breuning (1943) are from a region where *T. monnei* occurs but not *T. amazonum* or other species that could be confused with the former (except Amazonas): “Décrit par THOMSON sur des individus du Brésil: Amazone. De l’Amazonas à Santa Catharina et au Paraguay (Musée de Hambourg, etc.)”. It is very probable that Breuning (1943) had only examined specimens from the Brazilian state of Santa Catarina and Paraguay.

Corroborating the apparent misinterpretation of *T. amazonum* by Breuning (1943) is the description of *T. affinis* Breuning, 1935, and the redescription of the latter in Breuning (1943). Breuning (1935) stated that males of *T. affinis* have the elytral sutural apex projected, while in females it is rounded. At the same time, he stated that the elytral sutural apex of *T. amazonum* is not projected. Thomson (1857) stated that the elytral sutural angle in males of *T. amazonum* is projected (with small spine) and that in

females it is rounded (“Elytres granulées, ponctuées comme chez le *T. Insularis*, dans le ♂, et terminées à la suture par deux très petites épines; subarrondies chez le ♀”). Thus, the statement by Breuning (1935, 1943) for *T. amazonum* contradicts that of Thomson (1857), while at the same time the information on *T. affinis* agrees perfectly with that of true *T. amazonum*, suggesting that the two are synonymous.

Type material (when not indicated, the specimen belong to the Collection of the MZSP). **Holotype** male, from BRAZIL, *Rio de Janeiro*: Rio de Janeiro (“Floresta da Tijuca”), III.1957, Campos Seabra col. **Paratypes** – BRAZIL, *Pernambuco*: Vicência (“Engenho Água Azul”), 2 males, 4.VI.1971, Expedição do Museu de Zoologia col. *Bahia*: Ilhéus, female, X.1975, Dirings; Mucuri, 4 males, I.1972, P. C. Elias col. *Minas Gerais*: Lavras, male, X.1936, P. J. Ribeiro col.; Mar de Espanha, male, 3.I.1908, J. F. Zikán col.; Matipó, male, VII.1919, Pinto da Fonseca col.; *Espírito Santo*: Linhares, 2 males, X.1972, P. C. Elias col.; female, XII.1972, P. C. Elias col.; male, III.1973, P. C. Elias col. *Rio de Janeiro*: Ribeirão da Laje, male, XII.1969, W. Zikán col.; Rio de Janeiro (“Floresta da Tijuca”), female, 11.II.1959, Campos Seabra col.; (Corcovado), male, 12.II.1960, D. Zajciw col. *São Paulo*: Barueri, female, II.1962, K. Lenko col.; Campinas (Fazenda Duas Pontes; “km 120 da estrada Mogi-Mirim”), male, II.1974, F. Lane; Osasco, male, XII.1937, J. Lane col.; Itu, female, 07.V.1959, U. R. Martins col.; Monte Alegre (“Fazenda Santa Maria”, 1100 m), 1 male, 1 female, 24–30.XI.1942, F. Lane col.; Peruíbe, male, XII.1942, H. Zellibor col.; female, XII.1974, M. Carrera col.; Piracicaba, female, 29.X.1960, K. Reichardt col.; São Paulo (Ipiranga), female, XI.1922, Pinto da Fonseca col. *Paraná*: Guaira, 1 male, 2 females, XII.1957, M. A. Vulcano col. *Santa Catarina*: Corupá, male, IV.1935, A. Maller col.; Joinville, female, I.1944, B. Pohl col. *Rio Grande do Sul*: Derrubadas (“Parque Estadual do Turvo”), female, 22.X.2004, L. Schmidt col. (MCNZ); male, 31.X. 2003, R. Ott col. (MCNZ). ARGENTINA, *Misiones*: El Soberbio, 2 males, 1 female, XII.1969, R. Foerster col.

Etymology. We dedicate this species to Miguel A. Monné (MNRJ), for help with the bibliography for this study, for his contributions towards the knowledge of Cerambycidae of the Neotropical Region and, specially, for his information on the new species.

Taeniotes peruanus Breuning 1971

(Figs. 24, 25)

Taeniotes peruanus Breuning, 1971: 287; Monné 1994: 28 (cat.); Monné & Giesbert 1994: 181 (checklist); Monné 2005: 521 (cat.); Monné & Hovore 2005: 271 (checklist); 2006: 271 (checklist).

Original description (Breuning 1971: 287):

“Dem subocellatus Ol. nahe stehend, aber die Fühler um die Hälfte länger als der Körper, der Kopf weniger fein punktiert, der Scheitel mit feiner Mittellängskante, der Halsschild dicht, grob und unregelmäßig gefurcht, der Seitendorn viel kürzer und nicht zugespitzt, die Decken auf dem ganzen Basalviertel dichter und gröber gekörnt, die apikale Nahtcke in einen kleinen Lappen ausgezogen und die Tomentierung abwechend. Das fünfte Abdominalsegment mit kurzen Apikaldornen.

Dunkelbraun, die ganze Oberseite dunkelrotbraun tomentiert. Schildchen mit große unregelmäßig geformte weiße Diskalmakeln: eine premediane und eine postmediane und einige winzige weiße Flecken entlang dem Seitenrand und im Apikaldritt. Unterseite, Schenkel und Schienen hellrotbraun tomentiert. Tarsen grau tomentiert. Fühler rotbraun tomentiert”.

Taeniotes peruanus was described and it is known only by the holotype from Peru (Junin: Chanchamayo). We take this opportunity to illustrate it for the first time (Figs. 24, 25).

It is similar to *T. batesi* (Thomson, 1879) in the shape and placement of the pubescent maculae on the dorsal surface. It differs primarily by the non-metallic integument. The longitudinal vitta of whitish pubescence on the pronotum of the holotype seems to be eroded. The comparison between *T. peruanus* and *T. subocellatus* (= *T. farinosus*) by Breuning (1971) seems completely inappropriate, because both species differ markedly in the shape and placement of the pubescent maculae on the dorsal surface.

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