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The genus *Aplagiognathus* Thomson, 1861 (Coleoptera, Cerambycidae,
Prioninae, Macrotomini)

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The genus *Aplagiognathus* Thomson, 1861 (Coleoptera, Cerambycidae, Prioninae, Macrotomini)

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Abstract. *Aplagiognathus* Thomson, 1861 (Coleoptera, Cerambycidae, Prioninae, Macrotomini) and its two species, *A. spinosus* (Newman, 1840) and *A. hybostoma* Bates, 1879, are redescribed and figured. As the type of *A. spinosus* is apparently lost, a **neotype** for the species is designated herein as is a **lectotype** for *A. hybostoma*. Keys to the North and Central American genera of Macrotomini (excluding the West Indies) and to *Aplagiognathus* species are provided. Details on the numerous changes in the nomenclatural history of the genus are also chronicled.

Keywords. Neotype; Lectotype; revision; systematics.

Introduction

Although the genus *Aplagiognathus* Thompson, 1861 (Coleoptera, Cerambycidae, Prioninae, Macrotomini) contains only two species, *A. spinosus* (Newman, 1840) and *A. hybostoma* Bates, 1879 the correct application of the species names has heretofore been problematic because of the vagueness of the original descriptions. The purpose of this paper is to clarify the taxonomy of the genus *Aplagiognathus*, providing a definitive means to separate species, to designate a neotype for *Aplagiognathus spinosus* whose holotype is apparently lost, and to designate a lectotype for *A. hybostoma*. Additionally, a key to the North and Central American genera of Macrotomini (excluding the West Indies) is included.

Methods and materials

Specimens from the following museums and private collections were used in this study:

ACMT — American Coleoptera Museum (James Wappes), San Antonio, Texas, USA

BMNH — The Natural History Museum, London, United Kingdom

DHPC — Daniel Heffern Private Collection, Houston, Texas, USA

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

UNSM — University of Nebraska State Museum, Lincoln, Nebraska, USA

USNM — National Museum of Natural History, Washington, DC, USA

As numerous translations from Latin and French are included in the “Nomenclatural History” section we have preceded each with “(translation)” and placed the translated text in quotes to clarify where it begins and ends.

Nomenclatural history

Thomson (1861) described *Aplagiognathus* as a division of *Mallodon* Lacordaire, 1830 (translation): “Mandibles of middle size, sub-vertical in male and female; prothorax laterally with many spines, or crenulate and posteriorly toothed”. The name, *Aplagiognathus* means: *A* [negative]; *plagios*, Greek, [placed sideways or oblique]; *gnathus*, Greek, [mandible]. Thus we have “mandibles not oblique”, even

though, based on Thomson's original description, the mandibles are described as "sub-vertical." Thomson, mistakenly, interpreted the term "plagios" as meaning "horizontal". Thus, according to him, *Aplagiognathus* meant "mandibles not horizontal".

The nomenclatural history of *Aplagiognathus* is marked by much debate among various authors on how to apply the name and what species should be included in the genus. Some of this debate can be directly attributed to Thomson (1861) as he included *A. dasystema* [sic] (Say, 1824) (originally described in *Prionus* Geoffroy, 1762), a species with nearly horizontal mandibles, in *Aplagiognathus*. According to Thomson (1861) (translation): "My collection includes many new species that will be included in this division, which deserves, perhaps, to form a new genus". In this work, Thomson included *Mallodon*, and his *Aplagiognathus* in "Mallodonitae". "Mallodonitae" was included in the couplet "Mandibulae (saltem apud [male symbol]) gener. horizontales" [Mandibles (at least in male) of horizontal kind] even though, in his description of *Aplagiognathus*, he described the mandibles as "subverticales", a character that excludes *A. spinosus*. Another inconsistency in Thomson's work is in the couplet separating the genera of "Mallodonitae" (translation): "Mandibles robust; prothorax laterally crenulate, not spinose; tarsi not long". The description of the lateral margins of the prothorax does not agree with *A. spinosus*, which is distinctly spined, and with some females of *Mallodon dasystemus*, which can also have distinct spines. Later, Thomson (1864) maintained *Aplagiognathus* in "Mallodonitae", but considered it a genus different from *Mallodon*, and correctly placed it in his couplet (translation): "mandibles subvertical and of middle size." Thomson (1864) designated *A. spinosus* as type species of the genus and observed (translation): "all *Mallodon* whose mandibles are subvertical and little developed must also enter into this genus as well as four new species from my collection. All these insects inhabit North America".

Thomson (1867) using the same couplet as his previous work defined *Aplagiognathus* as containing the following species: *A. spinosus*; *A. melanopus* (Linnaeus, 1767) (originally described in *Cerambyx* Linnaeus, 1758); *A. cilipes* (Say, 1824) (originally described in *Prionus*); *A. serrulatus* (LeConte, 1854) (originally described in *Mallodon*); *A. costulatus* (LeConte, 1851) (originally described in *Mallodon*); *A. serratus* Thomson, 1865; *A. bituberculatus* (Palisot de Beauvois, 1805) (originally described in *Prionus*); *A. ? gnatho* (White, 1853) (originally described in *Mallodon*); *A. ? dentatus* (Fabricius, 1801) (originally described in *Prionus*).

The next year Lacordaire (1868) disagreed, considering *Aplagiognathus* synonymous with *Mallodon* (translation): "M. J. Thomson divided the genus in two; the *Mallodon* with the mandible of the males long and horizontal, with the prothorax laterally crenulate, and the *Aplagiognathus* in which the mandibles in both sexes are subvertical, not elongated, and the prothorax laterally multi-spinose. But those characters, in part sexual, do not seem to me generic".

Gemminger and Harold (1872) followed Lacordaire's (1868) opinion. However, Bates (1879) revalidated *Aplagiognathus* commenting: "*A. spinosus* (Newm.) cited by M. Thomson as the type of his genus *Aplagiognathus*, which cannot be reunited to *Mallodon*, as Lacordaire attempted, without rendering the definition of the latter impracticable". Bates (1879) also described *A. hybostoma* considering it to be in the same genus as *A. spinosus* and *A. serratus*.

In the 20th century, Lameere (1903) attempted to correct past errors and presented new synonymies with the following (translation): "...these last ones are the *Mallodon gnatho* White that is the *Stenodontes subsulcatus* Dalm. and the *Prionus dentatus* Fab., that is the female of *Stenodontes spinibarbis* Linn. The *Aplagiognathus* of Thomson are: *spinosus* Newm., type of the genus; *melanopus* Linn. that is a *Basitoxus*; *cilipes* Say that is synonymous of *melanopus* Linn.; *serrulatus* [sic] LeConte, that I also considered synonymous of *melanopus*; *costulatus* Le Conte that is the *Stenodontes dasystemus dasysotmus* Say; *dasystemus* Say, *Stenodontes* that Thomson described in the same work under the name of *Mallodon degeneratum*; *serratus* Thoms., species just described and that apparently is a *Mallodonopsis*; *bituberculatus* Beauv., *Stenodontes* that, still in the same work, Thomson probably described under the name of *Mallodon subcancellatum*. Of these ten species, the type of the genus, *spinosus* Newm., only belongs to it, and to which we need to add the *Aplagiognathus hybostoma* Bates".

Lameere (1903) placed *Aplagiognathus* in "Macrotomines", sub-division "Cnémoplitiens". Later, Lameere (1912) placed *Aplagiognathus* in his division "Archetypi" of the tribe Macrotomini (translation): "lateral edge of the prothorax spread; body depressed; 1st and 3rd antennomeres, in principle, not elongated; antennal tubercles not protruding, paraglossae small and not divided; discoidal polygons of the

male pronotum touching each other in the midline when the sexual punctation is complete. Genera: *Utra*, *Archetypus*, *Teispes*, *Eurynassa*, *Strongylaspis*, *Aplagiognathus*".

Casey (1912) described *A. guatemalensis* that was put (in doubt) under synonymy of *Stenodontes* (*Mallodon*) *dasystemus masticator* (Thomson, 1867) by Lameere (1919). Linsley (1957) wrote: "However, *Aplagiognathus guatemalensis* Casey (from Esquintla, Guatemala), assigned by Lameere as a possible synonym of *S. dasystemus masticator* Thomson, is quite distinct from what I have identified as *masticator*. Although apparently assignable to *Stenodontes* (*Orthomallodon*), it is unlike any species now known to me". Later, based on a photograph of the holotype, Casey's *A. guatemalensis* was placed in synonymy with *Physopleurus villardi* (Lameere) by Santos-Silva and Martins (2005).

Linsley (1934) described *A. remotus*, from Arizona, and commented: "This, the first recorded species of *Aplagiognathus* from within the borders of the United States, seems perfectly congeneric with the Mexican *A. spinosus* Newman and *A. hybostoma* Bates. From both of these, however, *A. remotus* may be distinguished by the short, closely-placed lateral spines of the prothorax and the absence of irregular pronotal sculpture". Later, Linsley (1957) synonymized his species, *A. remotus*, with *Paramallus arizonicus* Casey, 1912, putting that species in *Neomallodon*, his new subgenus of *Stenodontes* Audinet-Serville, 1832.

Lastly, since *Aplagiognathus* was originally established as a division of *Mallodon*, according to ICZN (1999: Article 10.4: "Availability of names for divisions of genera") it should be shown as a subgenus in it. Thus, the correct citation for the original description is *Mallodon* (*Aplagiognathus*) Thomson, 1861, and not *Aplagiognathus* Thomson, 1861, as listed in recent bibliographic references (e. g. Monné 2006).

***Aplagiognathus* Thomson, 1861**

Mallodon (*Aplagiognathus*) Thomson, 1861: 320 (originally described as a division of *Mallodon*).
Aplagiognathus; Thomson 1864: 307; 1867: 90; Bates 1879: 7; LeConte and Horn 1883: 272; Lameere 1901: 316, 322; 1903: 16; 1912: 180; 1913: 10 (cat.); 1919: 26; Casey 1912: 222 (key), 226; Blackwelder 1946: 552 (checklist); Chemsak and Linsley 1982: 3 (checklist); Chemsak et al. 1992: 14 (checklist); Monné and Giesbert 1994: 5 (checklist); Monné 1995: 5 (cat.); 2002: 12 (hosts); Santos-Silva and Martins 2005: 399 (key); Monné and Hovore 2005: 12 (checklist); 2006: 12 (checklist); Monné 2006: 45 (cat.).

Type-species. *Mallodon spinosum* Newman, 1840 (subsequent designation by Thomson 1864: 307).

Redescription. Medium (about 30.0 mm) to large (about 60.0 mm) size, variable intraspecifically. Integument shiny, brown to dark-brown.

Male. Head large (Fig. 1, 3, 4, 6, 8, 9), from almost horizontal (prognathous) to distinctly oblique (hypognathous); length, excluding mandibles, equal to or greater than that of pronotum; from slightly to distinctly elongated behind eyes. Longitudinal dorsal furrow of head well marked from base to near occiput (sometimes weaker behind eyes), situated in deep, triangular depression between antennal tubercles. Dorsal punctation of head coarse, dense and anastomosed; pilosity moderately long and sparse, longer and more abundant close to eyes. Lateral area behind eyes punctate-striate or microsculptured and with small granules (usually just striate near gula). Antennal tubercles large and rounded. Clypeus longer centrally, rugose-punctate or densely punctate, slightly elevated laterally or almost flat; separated from frons by a deep, wide furrow that, with the longitudinal sulcus of the frons, forms a "Y"; anterior margin nearly straight or slightly projected centrally; pilosity long and dense (more so frontally). Labrum oblique in relation to the clypeus, and its surface distinctly placed in a lower level than dorsal surface of clypeus; pilosity long and dense, found throughout or only centrally. Eyes large, elongated, about three times longer than wide; distance between upper ocular lobes slightly more than two times width of single lobe; distance between lower ocular lobes slightly less than three times width of lobe. Ocular carina narrow and low, but distinct from antennal tubercle to posterior edge of eye. Sculpture of hypostomal area variable; pilosity abundant and varying in length. Hypostomal carina slightly elevated. Maxillary palps with palpomere III shorter than II and IV; palpomere IV slightly securiform. Apex of

labial palps approaching base of maxillary palpomere IV. Galea long (reaching middle of maxillary palpomere II) or moderately long, reaching apex of maxillary palpomere I, densely setose towards apex. Length of mandible about two-thirds that of head; dorsal mandibular carina moderately to strongly elevated, but sometimes wide and indistinct from lateral surface; pilosity and punctation moderately abundant; apex bifid. Antennae filiform, reaching middle of elytra or nearly so; scape not reaching posterior edge of eyes; antennomere III shorter than scape.

Prothorax transverse. Pronotum convex, almost flat centrally; disc with two large impunctate or nearly impunctate callosities, centrally interconnected or not, and also interconnected or not with another transverse impunctate area at base; sexual punctation fine and abundant; sides with long sparse setae, center bare or with very short setae; anterior angles slightly projected forward; lateral and posterior angles usually indistinct; lateral margins with spines of varying length and number. Prosternum, proepimera, and proepisterna with same sculpturing as pronotum. Prosternal process with apex rounded, surpassing the procoxal cavities. Scutellum glabrous, shape interspecifically variable: rounded or pentagonal. Elytra glabrous, finely and abundantly punctate or finely reticulate; carinae from distinct to almost absent (variable intraspecifically); apices uniformly rounded; sutural angle with short spine. Metasternum sides microsculptured, distinctly setaceous; near metasternal suture with sub-triangular central area that is impunctate or almost impunctate and nearly glabrous. Metepisterna wide; inner margin convex; pilosity and sculpture similar to that of metasternum. Ventrites I-IV finely, abundantly punctate, except on apical one-third or one-fourth where it is impunctate and shiny; sides with short, abundant setae, center with setae shorter and less abundant, impunctate areas shiny. Legs with tibiae uniformly enlarged from base to apex, protibiae more strongly so. Metatarsomere V about as long as combined length of I-III.

Female. Head (Fig. 13, 14, 17, 18) narrower than that of male. Distance between upper and lower ocular lobes less than twice width of upper lobe. Antennae slightly surpassing basal one-third of elytra. Mandibles shorter than those of males. Pronotum, prosternum, proepisterna, and proepimera impunctate.

Included species. *Aplagiognathus spinosus* (Newman, 1840); *A. hybostoma* Bates, 1879.

Geographical distribution. Mexico and Central America.

Diagnosis. *Aplagiognathus* is most similar in general appearance to *Archodontes*. However, among their differences, the long spines on the sides of its pronotum will easily distinguish it from that genus, which has a laterally crenulate pronotum. *Aplagiognathus* can be readily separated from other Macrotomini genera by the characters in the following key and by referring to the color photographs provided. Its limited geographical distribution is also helpful.

Key to North and Central American genera of Macrotomini (excluding the West Indies)

1. Antennomere III longer than scape; scutellum convex with distinct asperities 2
- Antennomere III shorter than scape; scutellum flat or slightly concave without distinct asperities 3
- 2(1). Antennomeres serrate. S. Mexico and Costa Rica *Parastrongylaspis* Giesbert, 1987
- Antennomeres filiform. Mexico to southern S. America *Strongylaspis* Thomson, 1861
- 3(1). Mandibles oblique, with their underside forming an angle with the ventral surface of the body that is less than 150° 4
- Mandibles horizontal or nearly so, with their underside forming an angle with the ventral surface of the body that is greater than 150° 6
- 4(3). Lateral margin of pronotum crenulate. S. United States and N. Mexico *Archodontes* Lameere, 1903
- Lateral margin of pronotum with distinct spines or crenulate-spinose 5

- 5(4). Pronotum with sides strongly explanate; anterior angles broadly rounded, distinctly projected forward. Mexico to N. South America ***Mallodonopsis* Thomson, 1861**
 — Pronotum with sides weakly explanate, anterior angles narrow to acute, slightly projected forward or to the side. Mexico to Panama ***Neoma* Santos-Silva, Thomas and Wappes, 2011**
- 6(3). Metepisterna narrow, widest point equal to one-fourth its length, inner edge typically concave. SW United States to Honduras ***Nothopleurus* Lacordaire, 1869**
 — Metepisterna wide, widest point equal to one-third its length, inner edge straight or slightly convex **7**
- 7(6). Lateral margins of pronotum with long spines. Southern Mexico to Guatemala and Honduras ***Aplagiognathus* Thomson, 1861**
 — Lateral margins of pronotum smooth, or crenulate, or with small spines **8**
- 8(7). Mandibles shorter than head in both sexes; outer margin distinctly swollen. SW. United States ***Neomallodon* Linsley, 1957**
 — Mandibles much longer than head in males, and slightly shorter to slightly longer in females; outer margin curved but not swollen **9**
- 9(8). Antenna surpassing middle of elytra in males and reaching middle of elytra in females. SE. United States and West Indies ***Stenodontes* Audinet-Serville, 1832**
 — Antenna reaching middle of elytra in males and basal one-third in females S. United States to Brazil ***Mallodon* Lacordaire, 1830**

Key to species of *Aplagiognathus*

1. Mandibles of males with dorsal carina strongly elevated at base forming a tooth like protuberance (Fig. 11); elytra finely punctate in both sexes (Fig. 2). Mexico (Chiapas), Guatemala, Honduras ***A. hybostoma* Bates, 1879**
 — Mandibles of males with dorsal carina not strongly elevated at base (Fig. 12); elytra finely reticulated in both sexes (Fig. 7). Mexico (Mexico, Jalisco, Veracruz, Oaxaca, Puebla, Quéretaro, Morelos, Michoacán, Guerrero, Hidalgo, Durango), Guatemala ***A. spinosus* (Newman, 1840)**

***Aplagiognathus hybostoma* Bates, 1879**

(Fig. 1-5, 11, 13-16, 21-24)

Aplagiognathus hybostoma Bates, 1879: 8; 1884: 234; Lameere 1903: 17; 1913: 10 (cat.); 1919: 26; Blackwelder 1946: 552; Chemsak et al. 1992: 14 (checklist); Monné and Giesbert 1994: 5 (checklist); Monné 1995: 5 (cat.); Monné and Hovore 2005: 13 (checklist); 2006: 12 (checklist); Hovore 2006: 371 (distribution); Monné 2006: 45 (cat.); Jeniš 2010: 142 (syntype).

Mallodon hybostoma; Lameere 1883: 6 (cat.).

Redescription. Male (Fig. 1). Anterior margin of clypeus almost straight (Fig. 5) or slightly projected centrally. Labrum short, greatest length less than 0.2 times the width; each membranous area nearly equal in length to central sclerotized area-Hypostomal area varies from punctate to transversally striate and punctate (Fig. 4), punctures moderately abundant, more so towards gula; anterior margin about as wide as central area of prosternal process, gradually to abruptly elevated. Outer margin of mandibles with basal projection (Fig. 5); dorsal carina with a strongly elevated tooth (Fig. 11). Scape slightly rounded dorsally; reaches, or almost reaches, posterior edge of eyes.

Callosities of pronotal disc large, distinctly interconnected to the impunctate and shiny basal area (Fig. 3); area between apex of callosities and anterior margin somewhat narrow; area between each

callosity and lateral margin with another callosity variable, large or small, coarsely punctate, interconnected or not to the basal shiny area. Elytra finely punctate, punctures moderately abundant (Fig. 2). **Female** (Fig. 13). Outer margin of mandibles evenly rounded, lacking a projection (as in the male); dorsal carina without elevated tooth (Fig. 15), but narrow and distinct (Fig. 16).

Dimensions in mm (male/female). Total length (including mandibles), 48.5-54.1/39.5-49.5 (lectotype is 36.0); prothoracic length, 6.5-7.7/5.3-6.7; prothoracic width at widest point, 14.0-15.9/10.4-14.2 (lectotype is 13.0); humeral width, 13.6-14.6/11.0-14.8; elytral length, 31.6-34.2/28.5-35.6.

Types. Bates (1879) described *A. hybostoma* based on two male syntypes, both collected in Guatemala (Calderas and Dueñas) and deposited at BMNH. The precise identities of the type localities are defined by Selander and Vaurie (1962): “CALDERAS, CHIMALTENANGO, GUATEMALA. Village on the slope of Volcán de Fuego 10 km. west of Antigua; 7000 feet; 14° 28', 90° 57'” and “DUEÑAS, SACATEPÉQUEZ, GUATEMALA. Village near the volcano of Acatenango 6 to 8 km. southwest of Antigua; 4700± feet; 14° 32', 90° 47'” (locality of the specimen herein designated as the lectotype). Monné (2006) recorded: “Type locality—Guatemala, Chimaltenango: Calderas.” However, as seen above, Bates (1879) described the species from two different Guatemala localities. Since no primary type was designated for the species, the type locality encompasses both localities (ICZN 1999: Article 76.1).

We here designate as **lectotype** (Fig. 21-24) for *Aplagiognathus hybostoma* a specimen deposited at BMNH, with the following labels:

1. Top label (round, outlined in a red circle) simply says “Type”.
2. “Duenas, Guatemala / G. C. Champion”.
3. “BCA, Col., V/*Aplagiognathus hybostoma* Bates”.
4. “Sp. figured”
5. (hand-written) “*Aplagiognathus hybostoma* Bates.”
6. Red (printed), added by us: LECTOTYPE/ [male symbol]/*Aplagiognathus hybostoma* Bates 1879/ Designated by Santos-Silva and Wappes 2012”.

Geographical distribution. Mexico (**new country record**), (Chiapas, Guerrero and Oaxaca – **new records**), Honduras, Guatemala (Bates, 1879).

Material examined (in addition to the lectotype). MEXICO, *Chiapas*: 10 km SE San Cristobal, male, V.31.1987, B. Ratcliffe & M. Jameson col. (ACMT). *Guerrero*: Omilteme, male, July, H. H. Smith (USNM). *Oaxaca*: male, F. Tippmann (USNM). HONDURAS, *Ocatepeque*: Guisarote Bio. Preserve, female, V.21.1995, J. E. Wappes col. (ACMT). *La Paz*: Reserva Biológica Guajiquiro (2170 m; N 14° 07'53", W 87° 32'47"), female, VI.20.2001, B. Ratcliffe, M. L. Jameson & R. Cave col. (UNSM). GUATEMALA, male, (no date or locality indicated), F. Tippmann, (USNM). *Baja Verapaz*: Posada de Montana, 1 male, 1 female, VI.05.1991, J. E. Wappes col. (ACMT). *Quetzaltenango*: Zunil (Las Fuentes Georginas, MV/BL, N14°45'0.4", W91°28'48.8", 2440 m, cloudforest), female, VII-7-2009, Paulsen, Cano, Orozco Colls. (ACMT). *Sacatepequez*: Antigua Guatemala, Cerro Carmona, Fca El Pilar, N14°32.30' W90°41.80', 2080 m, 2 females, VII-4-2009, Ratcliffe et al. Colls. (ACMT, UNSM).

Remarks. According to Bates (1879): “Long. 1 poll. 6 lin.” [about 38.12 mm]; and compared to *A. spinosus* he wrote “It is also a smaller and rather narrower insect”. However, among the males examined all but one is as long as and as robust as *A. spinosus*.

***Aplagiognathus spinosus* (Newman, 1840)**

(Fig. 6-10, 12, 17-20, 25-29)

Mallodon spinosum Newman, 1840: 194; White 1853: 46.

Mallodon spinosus; Gemminger and Harold 1872: 2771 (cat.).

Malloodon (Aplagiognathus) spinosus; Thomson 1861: 320.

Aplagiognathus spinosus; Thomson 1864: 307; 1867: 90; Bates 1879: 8 (distribution); 1884: 234 (distribution); Lameere 1903: 18; 1913: 10 (cat.); 1919: 26; Linsley 1935: 69 (distribution); Blackwelder 1946: 552 (checklist); Gilmour 1954: 5; Chemsak et al. 1992: 14 (checklist); Terrón 1992: 291, 294, 298 (host plant; distribution); Monné and Giesbert 1994: 5 (checklist); Monné 1995: 5 (cat.); Noguera and Chemsak 1996: 396 (distribution); Monné and Hovore 2005: 13 (checklist); 2006: 12 (checklist); Monné 2006: 45 (cat.).

Redescription. Male (Fig. 6). Anterior margin of clypeus almost straight (Fig. 10) or slightly excavated centrally. Labrum proportionately long (longest length greater than 0.3 times the width); lateral membranous areas smaller than central sclerotized area. Hypostomal area punctuate or transversally rugose (Fig. 9); anterior margin about as wide as central area of prosternal process, gradually to abruptly elevated. Outer margin of mandibles rounded, without a projection near base (Fig. 10); dorsal carina without an elevated tooth (Fig. 12). Scape usually dorsally flattened, not attaining posterior edge of the eyes.

Callosities of pronotal disc small (Fig. 8), not or slightly interconnected to the transverse impunctate, shiny basal area; area between apex of callosities and anterior margin wide; area between each callosity and lateral margin with narrow elongated tubercle. Elytra finely reticulate (Fig. 7).

Female (Fig. 17). Lateral margins of mandibles similar to those of males; dorsal carina (Fig. 19) broadly rounded, not distinctly delineated from surface of mandible (Fig. 20).

Dimensions in mm (male/female). Total length (including mandibles), 39.9-45.0/45.7-56.0 (neotype is 30.0); prothoracic length, 5.5-6.0/6.0-7.3; prothoracic width at widest point, 12.0-13.7/13.9-16.8 (neotype is 10.0); humeral width 11.6-12.0/13.2-16.8; elytral length, 26.5-28.0/33.0-40.3.

Types. Newman described *Malloodon spinosum* based on a male specimen (holotype) from Mexico indicating it was from “Velasco”. There are at least three such cities, all in different States, found in Mexico (Directory of Cities and Towns in the World, 1996-2010). Hence, without other evidence, it is not possible to pinpoint the exact type locality for the holotype.

The title of Newman’s work where *M. spinosum* was described (“Descriptions of a few Longicorns, MS [(sic) manuscript] names of which are published in the Sale-Catalogue of Mr. Children’s Insects”) does not affirm that the specimens used to describe the new species only belonged to Children’s Collection. It is only possible to affirm that the names were used in Children’s catalog. The title may well indicate that the “Sale-Catalogue” was already published when Newman actually described the species. However, as there is no evidence indicating that the species described did not belong to Children’s collection we assume they did. Although Newman failed to indicate a type depository for *M. spinosum* there are types of some other species, described in his 1840’s work, deposited in the BMNH (e.g. *Niraeus tricolor* Newman and *Rhachidion obesum* Newman). Unfortunately, there is no evidence of the *Malloodon spinosum* type being deposited in the BMNH, either then or later, nor has it been located elsewhere (personal communication with M. V. L. Barclay, Coleoptera Curator, BMNH). Additionally, personal communication with James Hogan, Coleoptera Curator, at the Hope Entomological Collections, University Museums, Oxford, United Kingdom (OXUM) affirmed that the type is not there either. Information on the ultimate disposition of the “sold material” from Children’s collection is also lacking. Since *Malloodon spinosum* is the type species of *Aplagiognathus* we believe it is important, and necessary, to designate a neotype for that species. The specimen herein designated as the **neotype** (Fig. 25-29) is a male from Mexico which compares favorably to Newman’s description and is deposited at the BMNH. The neotype for *Aplagiognathus spinosus* (Newman, 1840) bears the following labels:

1. White (printed): Mexico. Salle Coll.
2. White (printed): B. C. A., Col., V. / *Aplagiognathus spinosus*
3. White (printed): Ex. Coll. J. Sturm
4. White (handwritten): Mexico / B. / *Malloodon spinicolle* / mihi
5. White (handwritten): *Aplagiognathus spinosus* Newm.

6. Red (printed) – added by us: NEOTYPE / [male symbol] / *Mallodon spinosum* / Newman 1840 / Designated by Santos-Silva & Wappes 2012

According to ICZN (1999: Article 76.3) the type locality for *Aplagiognathus spinosus* (Newman, 1840) now becomes that of the neotype.

Geographical distribution. Mexico (Newman 1840); Mexico [Parada¹, Misantla² (Bates 1884); Oaxaca, Orizaba³ (Lameere 1903); Mexico (Linsley 1935); Morelos, Michoacán, Guerrero, Jalisco, Hidalgo, Puebla, Durango (Terrón 1992); Querétaro (**new record**)], Guatemala (**new country record**).

1. According to Selander and Vaurie (1962) “LA PARADA, OAXACA, MEXICO. Hacienda and important collecting site on the north slope of the mountains west of Cerro San Felipe, which is just north of the city of Oaxaca; 7900 feet; about 17° 10', 96° 40'. (See Goldman, 1951, pp. 215-216.) Sclater (1858, p. 295) gives the elevation as “about 10,000 ft.”

2. According to Selander and Vaurie (1962) “MISANTLA, VERACRUZ, MEXICO. Large town in the central part of the state 45 km. north-northeast of Jalapa; 1345 feet; 19° 56', 96° 50'.”

3. According to Directory of Cities and Towns in World (1996-2010) there are four places named Orizaba in Mexico, in the states of Veracruz, Campeche, Chiapas, and Chihuahua.

Material examined (in addition to the neotype). MEXICO, male, female, Fry Coll., 1905-100, 21835, no other data (BMNH); male, female (no other data), Salle Coll., ex Coll. Sturm, (BMNH); male (no other data), (BMNH); male, (no other data), Chevrolat Coll. (BMNH); male, (no other data) (BMNH). *Veracruz*: Orizaba, male (no other data), F. Tippmann (USNM); male (no other data), Bowr. Chevrolat 65-47(BMNH); Misantla, male, Hoege, (“Data unreliable”, see Brit. Mus. 1949-314) (BMNH); Córdoba (= Córdoba), male, (no other data), Salle Coll., (BMNH). *Mexico D.F.*: (no other data), male, J. R. Inda, col.(USNM); Estación Agrícola Central (*Salix babylonica* L.), female, September 12, 1908, “Y. [surname illegible] col. (Série Zoologia) (USNM); Mexico City, female, V.19.1952, C. M. Riess col. (MZSP); male, female, [no date and collector indicated] (MZSP); male, VII.1910, [no collector indicated] (MZSP); male, 92-90, (no other data), Hoege, (BMNH); (Chapultepec), female, VIII.1935, L. Ancona col. (MZSP); Toluca, female, [no date and collector indicated] (MZSP). *Guerrero*: Olmiteme (8000 ft.), male, July, H. H. Smith col. (USNM); 3 males (BMNH). *Hidalgo*: San Miguel, male, 1954, W. M. Mann col. (USNM). *Querétaro de Arteaga*: Huimilpan (1 km NE La Beata; 20° 18'47.76” 100° 14'16.63”), male, Z. Mayoral col. (ACMT). *Jalisco*: Concepción de Buenos Aires, 2070 m, female, 26-27.VII.2009, Nogueira col. (DHPC); Sierra de Talpa (1655 m), male, female, 17-18.VII.2010, G. Nogueira col. (DHPC). *Oaxaca*: (no other data), female (USNM). Sierra de Juarez (1650 m), female, 11.V.1997, G. Nogueira col. (DHPC); male, 58.13; (no other data) (BMNH). GUATEMALA, *Quiché*: Chichicastenango (Chupal), female, 11.V.1978, E. Welling col. (DHPC). *Solola*: Xajaxac (2300 m), female, VIII.1979, E. Welling col. (DHPC).

Note. The geographical distribution, based on literature records, of both *Aplagiognathus spinosus* (Newman) and *A. hybostoma* Bates, must be held suspect until the specimens upon which they are based are re-examined to validate the species record.

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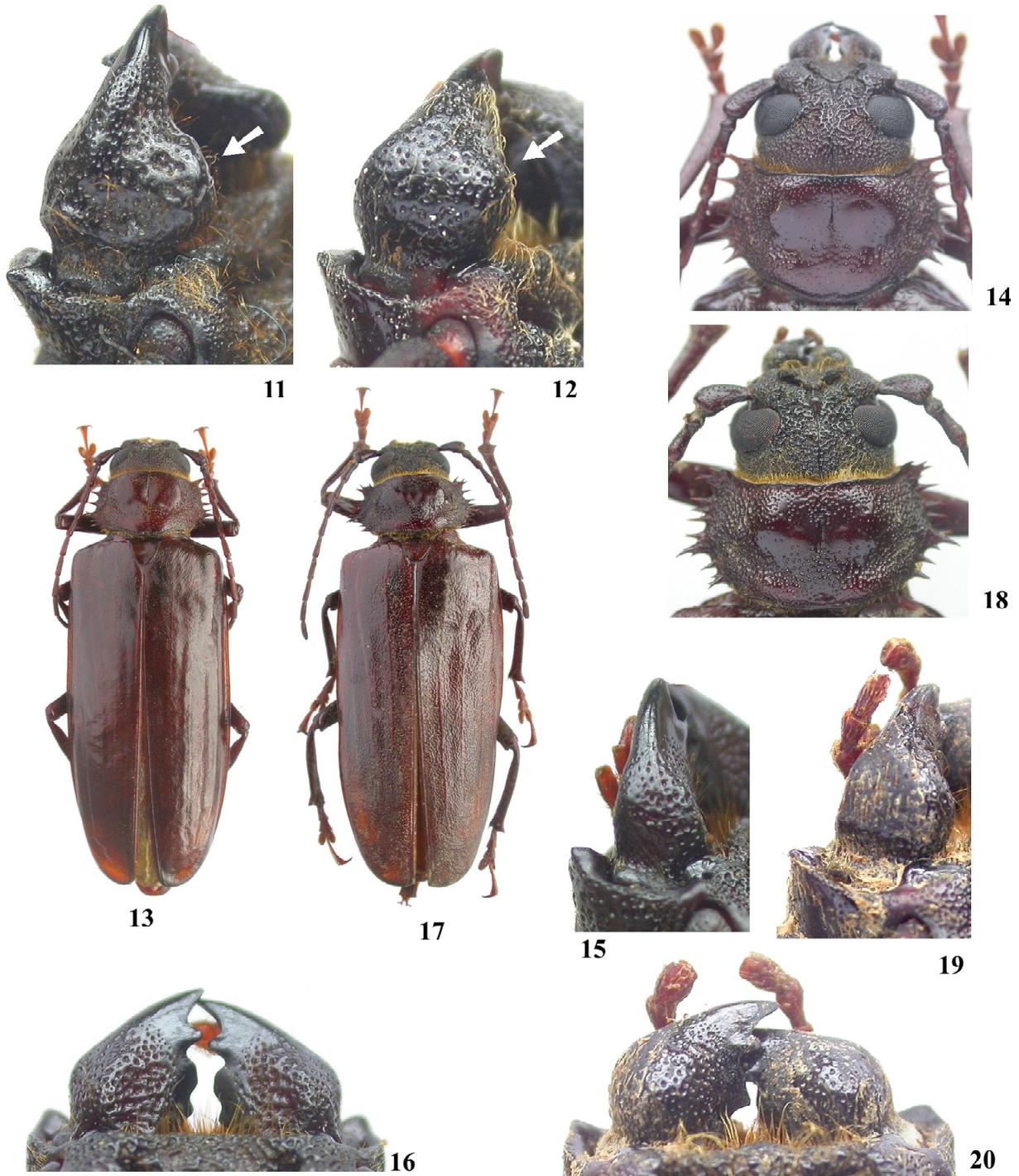
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Figures 1-10. 1-5) *Aplagiognathus hybostoma* Bates, 1879, male: 1. Dorsal habitus; 2. Elytral punctation; 3. Head and prothorax, dorsal; 4. Head and prothorax, ventral; 5. Mandibles, dorsal. 6-10) *Aplagiognathus spinosus* (Newman, 1840), male: 6. Dorsal habitus; 7. Elytral punctation; 8. Head and prothorax, dorsal; 9. Head and prothorax, ventral; 10. Mandibles, dorsal.



Figures 11-20. 11-12) Mandibles, lateral, male: 11. *Aplagiognathus hybostoma* Bates, 1879; 12. *Aplagiognathus spinosus* (Newman, 1840). 13-16) *A. hybostoma*, female: 13. Dorsal habitus; 14. Head and prothorax, dorsal; 15. Mandible, lateral; 16. Mandible, dorsal. 17-20) *A. spinosus*, female: 17. Dorsal habitus; 18. Head and prothorax, dorsal; 19. Mandible, lateral; 20. Mandible, dorsal.



Figures 21-29. 21-24) *Aplagiognathus hybostoma* Bates, 1879, lectotype male: 21. Dorsal habitus; 22. Ventral habitus; 23. Lateral habitus; 24. Head, lateral view. 25-29) *Aplagiognathus spinosus*, neotype male: 25, Head, lateral view; 26. Labels; 27. Dorsal habitus; 28. Ventral habitus; 29. Lateral habitus.