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A review of *Lathropus* Erichson (Coleoptera: Laemophloeidae) in
Florida and the West Indies, excluding the Lesser Antilles

Michael C. Thomas
Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, FL 32614-7100

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A review of *Lathropus* Erichson (Coleoptera: Laemophloeidae) in Florida and the West Indies, excluding the Lesser Antilles

Michael C. Thomas

Florida State Collection of Arthropods
Florida Department of Agriculture and Consumer Services
P.O. Box 147100
Gainesville, FL 32614-7100
thomasm@doacs.state.fl.us

Abstract. The species of the genus *Lathropus* Erichson are reviewed for Florida and the West Indies, excluding the Lesser Antilles. Seven species are recorded from this region, three of which are described as new: *Lathropus chickcharnie* Thomas, **new species**, *Lathropus jamaicensis* Thomas, **new species**, and *Lathropus rhabdophloeoides* Thomas, **new species**. A **lectotype** is designated for *Lathropus vernalis* Casey, and *Lathropus striatus* Casey is synonymized under *Lathropus vernalis* Casey, **new synonymy**. Illustrations and a key to the species of this geographic region are provided.

Introduction

The last significant contribution towards the taxonomy of *Lathropus* Erichson in the New World was published more than 90 years ago by Casey (1916). Since then, these beetles have been ignored except for mention in faunal studies (e.g., Thomas 1993).

Over the past few years trapping initiatives by the Florida Department of Agriculture and Consumer Services' Cooperative Agricultural Pest Survey have produced many specimens of these normally rarely collected beetles, prompting this study. I have restricted this study to include species found in Florida and the western West Indies because of a paucity of specimens from other areas, especially from the western United States. However, data from extralimital specimens of the species treated here are presented.

While examining representatives of various laemophloeid genera under scanning electron microscopy, I discovered that the arrangement and type of sensillae on the antennomeres of the antennal club vary among genera. This character is discussed and illustrated below for several genera.

Almost all of the specimens making up this study are deposited in the Florida State Collection of Arthropods (FSAC), Gainesville, FL, or in the private collection of Robert H. Turnbow (RHTC), Enterprise, AL. Paratypes of the new species described here will be deposited in the U.S. National Museum of Natural History (USNM), Washington, D.C.

***Lathropus* Erichson**

Lathropus Erichson 1846: 327. **Type species:** *Trogosita ? sepicola* Müller, by monotypy.

Diagnosis. The members of this genus are easily recognized by the following combination of character states: their minute size (<2mm); short, clubbed antennae; tarsal formula 5-5-5 in both sexes; lateral lines on head obliterated by coarse surface sculpture (Fig. 13-18); dorsal pubescence composed of bifurcate setae (Fig. 62); apical sensillae on antennomeres IX-X arranged in a complete ring (Fig. 53); pronotum usually with 3-4 lateral denticles and with discal impressions (Fig. 19-26); each elytral cell enclosing two rows of deep punctures and five rows of setae (Fig. 51); anterior coxal cavities posteriorly closed (Fig. 60); and mesocoxal cavities closed laterally by meso- and metasterna (Fig. 61). Mouthparts (Fig. 47-50) and genitalia (Fig. 41-45) are similar to those of other laemophloeid genera.

Distribution. There is one known European species, the type species *L. sepicola* (Müller). The remaining species occur in the New World where they range from northeastern North America west to California and south through Central America and throughout the Caribbean. I have also seen undescribed South American species from as far south as Bolivia.

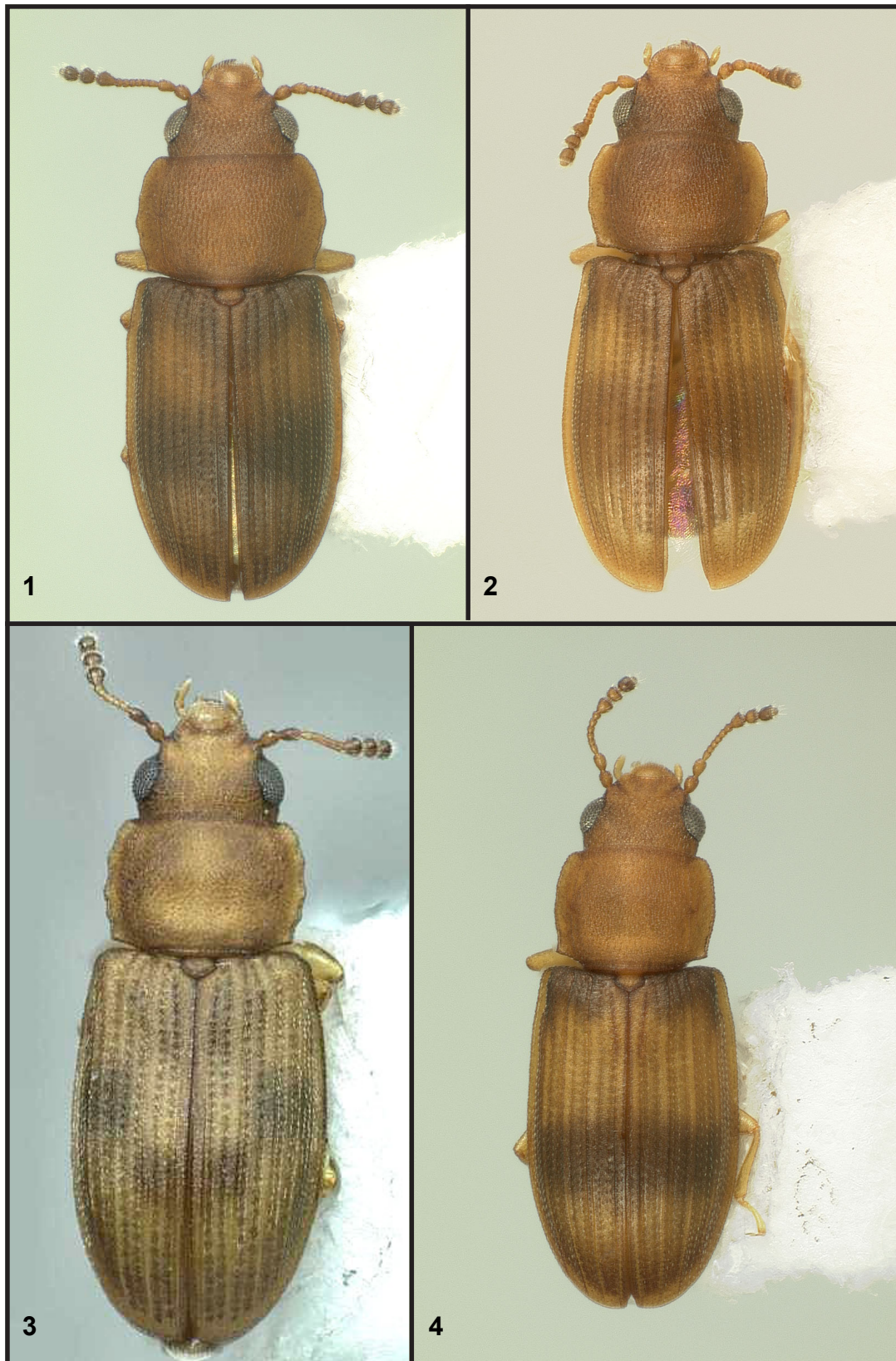


Figure 1-4. Habitus, *Lathropus* spp. 1) *L. parvulus* Grouvelle (Panama). 2) *L. parvulus* Grouvelle (Cayman Islands). 3) *L. pictus* Schwarz. 4) *L. chickcharnie* Thomas, n. sp.

Discussion. The affinities of *Lathropus* are unclear. Only one other laemophloeid genus, *Carinophloeus* Lefkovich, is known to possess closed mesocoxal cavities, but otherwise differs in many ways from *Lathropus*: anterior coxal cavities open; dorsal setae grooved, not bifurcate (Fig. 57); antennal sensillae arranged in two incomplete arcs (Fig. 58); elytral cells without rows of deep punctures or rows of setae except for the cell margins (Fig. 57).

Members of *Rhabdophloeus* Sharp resemble those of *Lathropus* in general body shape and extremely coarse dorsal surface sculpture but have open procoxal and mesocoxal cavities; grooved setae (Fig. 55); elytral cells as in *Carinophloeus*; and generally longer antennae with sensillae confined to two well-defined pits (Fig. 56).

An undescribed genus from the Middle East also has extremely coarse surface sculpture which obliterates the sublateral lines of the head and pronotum (Fig. 59) and with two rows of deep punctures and three rows of setae in each cell (Fig. 52) it approaches the elytral cell arrangement of *Lathropus*. However, it has open procoxal and mesocoxal cavities, grooved setae, and different genitalia. The sensillae are in a complete ring around antennomeres IX-X but differ in that the portion of the antennomere bearing the sensillae protrudes anteriorly (Fig. 54).

The habits and habitats of the New World members of this genus are poorly known, with information limited to an association with scolytine curculionids (Thomas 1993). Uliana (2003), in a detailed study of the biology of *L. sepicola* in Italy, found no real association with scolytines beyond the fact both are found in the same habitat. Instead, adults and larvae both fed on fruiting bodies of *Diplodia melaena* Lév. (Fungi Imperfecti) (Uliana 2003).

***Lathropus parvulus* Grouvelle**

Fig. 1, 2, 5, 6, 19, 20, 27, 34

Lathropus parvulus Grouvelle 1878: 73

Diagnosis. Length, 1.16mm – 1.34mm. The adults of this species strongly resemble those of *L. robustulus* in their rather broad, rounded pronotum (Fig. 19-20), and the armature of the internal sac (Fig. 21), but differ in being bicolored (Fig. 1-2) (versus all dark in *L. robustulus*) and with the sculpture of the pronotum arranged in an obliquely parallel linear pattern (Fig. 27). They differ from those of the other bicolored species treated here in their body form and genitalic characters.

Distribution. Mexico, Central America, Bahamas, Cayman Islands, Dominican Republic; Turks and Caicos.

Specimens examined. Many from Central America, plus 99 from: **BAHAMAS: Great Inagua:** strand S of Middle Point; **CAYMAN ISLANDS: Cayman Brac:** jct. Hemmington Rd. at Songbird Dr.; Maj. Donald Dr., .6km E. jct. Ashton Reid Dr.; south side road west; Sovereign Heights; The Creek; **Grand Cayman:** no specific locality; **Little Cayman:** North Coast Rd., .1km W Olivine Kirk Dr.; 3km SE Spot Bay; **DOMINICAN REPUBLIC: Barahona:** Payaso; **Monseñor Novel:** Bonao; **Pedernales:** Cabo Rojo; km. 24.5 N. Cabo Rojo; **Peravia:** 12km SE Rio Ocoa; **La Vega:** 1km S Manabao; **TURKS AND CAICOS: Grand Turk:** Turks and Caicos Nat. Mus. (FSCA, RHTC)

Discussion. The West Indian representatives of this widespread species differ somewhat from the Central American population in being generally paler, but the two populations are very similar in body shape, sculpture, and genitalic characters.

***Lathropus pictus* Schwarz**

Fig. 3, 9, 15, 23, 33, 35

Lathropus pictus Schwarz 1878: 358

Lathropus costatus Grouvelle 1902: 763; synonymy by Thomas 1993: 43

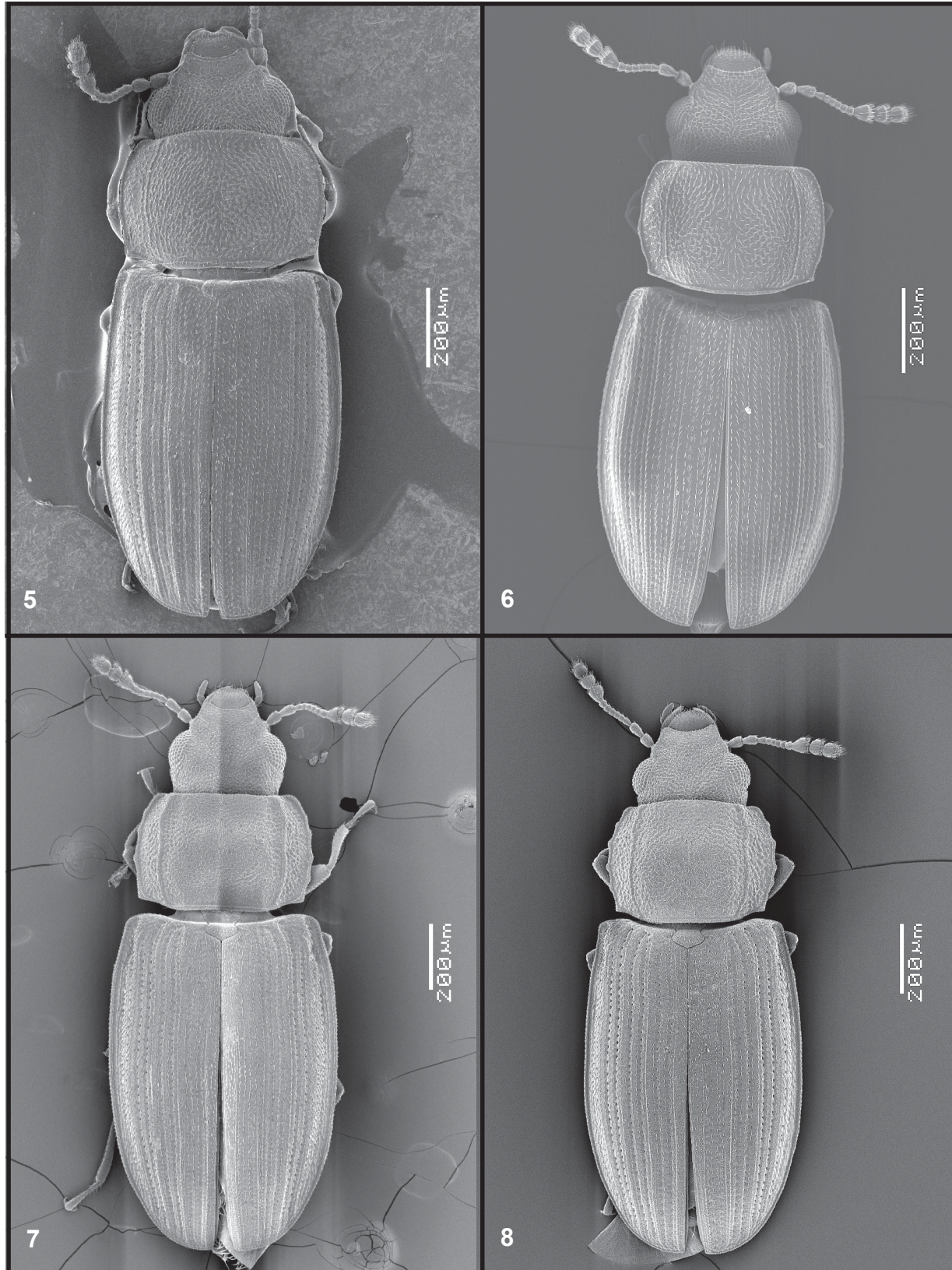


Figure 5-8. Habitus, *Lathropus* spp. **5)** *L. parvulus* Crouvelle (Panama). **6)** *L. parvulus* Grouvelle (Cayman Islands). **7)** *L. jamaicensis* Thomas, n. sp. **8)** *L. rhabdophloeoides* Thomas, n. sp.

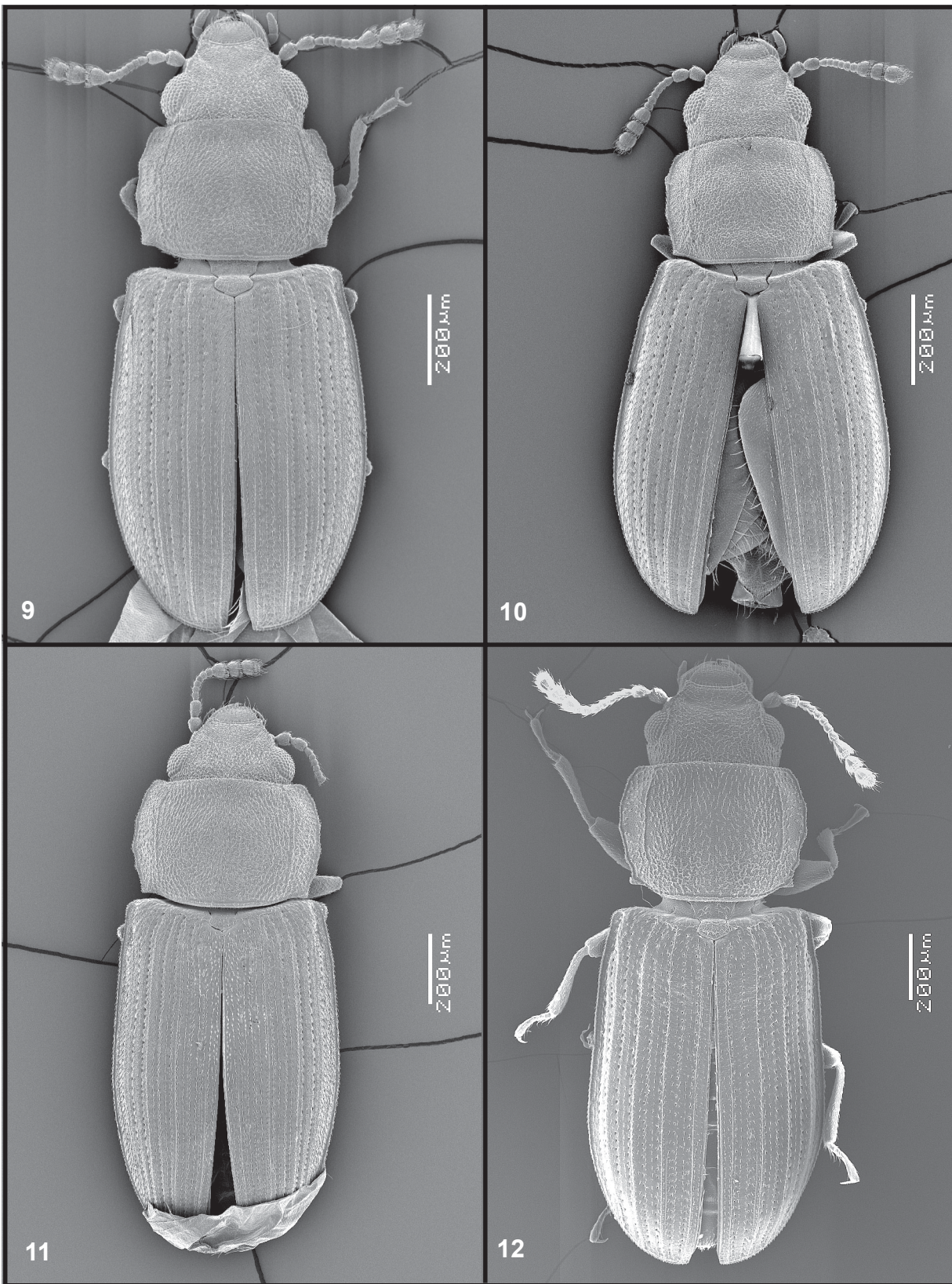


Figure 9-12. Habitus, *Lathropus* spp. 9) *L. pictus* Schwarz. 10) *L. chickcharnie* Thomas, n. sp. 11) *L. robustulus* Casey. 12) *L. vernalis* Casey.

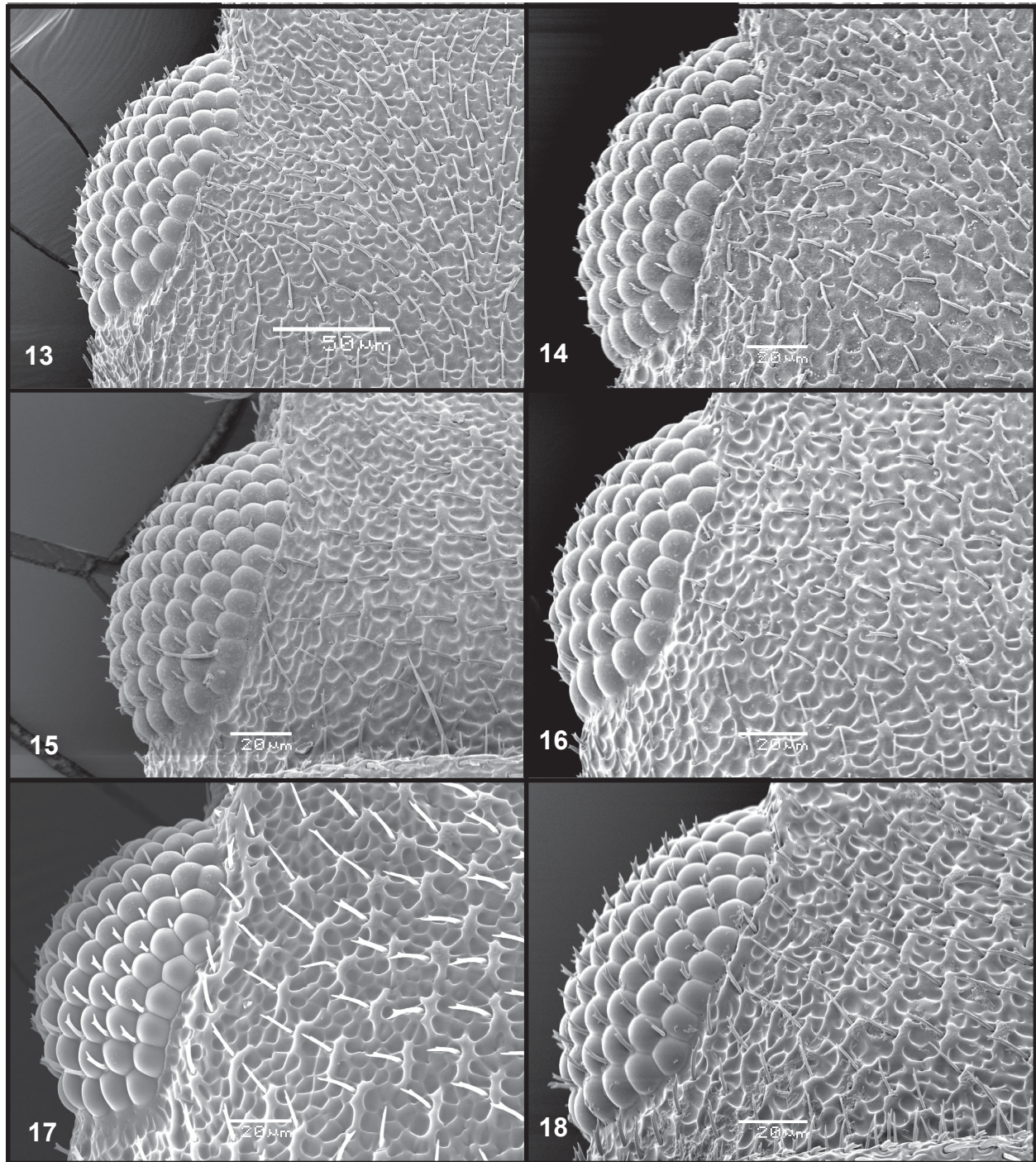


Figure 13-18. Surface sculpture of head, *Lathropus* spp. 13) *L. jamaicensis* Thomas, n. sp. 14) *L. rhabdophloeoides* Thomas, n. sp. 15) *L. pictus* Schwarz. 16) *L. chickcharnie* Thomas, n. sp. 17) *L. vernalis* Casey. 18) *L. robustulus* Casey.

Diagnosis. Length, 1.06mm - 1.44mm. The combination of the following character states is diagnostic for this species: color yellowish brown; elytra with irregular dark blotches (Fig. 3); pronotal margins distinctly undulating (Fig. 23); sublateral line of pronotum partially effaced, represented by a shallow groove (Fig. 23); male genitalia as in Fig. 35.

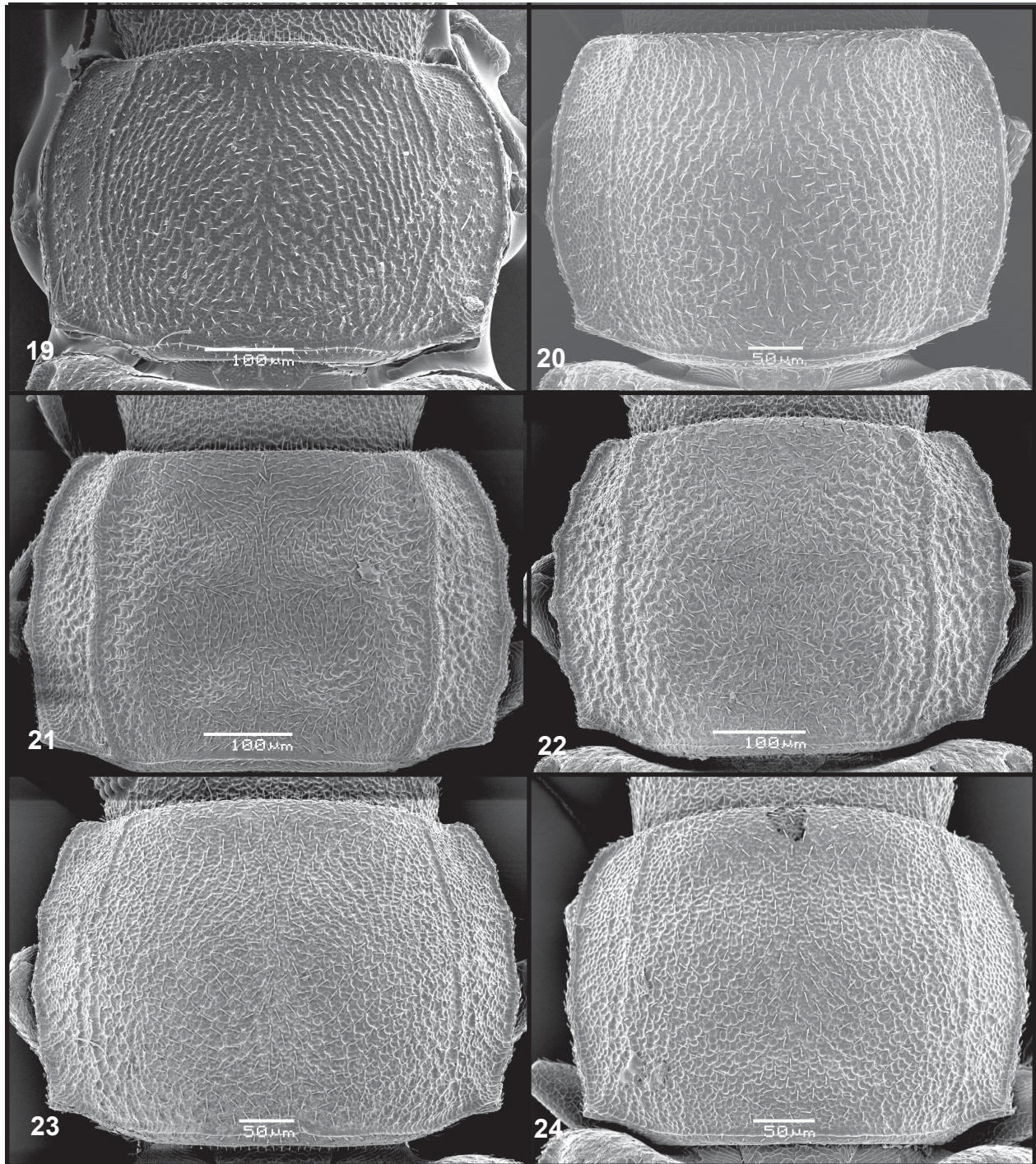


Figure 19-24. Pronotum, *Lathropus* spp. **19)** *L. parvulus* Grouvelle (Panama). **20)** *L. parvulus* Grouvelle (Cayman Islands). **21)** *L. jamaicensis* Thomas, n. sp. **22)** *L. rhabdophloeoides* Thomas, n. sp. **23)** *L. pictus* Schwarz. **24)** *L. chickcharnie* Thomas, n. sp.

Distribution. From Florida throughout the West Indies, and Mexico. It has been recorded specifically in the literature from Mexico (Sharp 1899), Guadeloupe (Grouvelle 1902), Florida (Schwarz 1878), U.S. Virgin Islands (Thomas 1993), and the Bahamas (Turnbow and Thomas 2008). The specimens recorded below represent many of the islands of the West Indies from the Greater Antilles through the Lesser Antilles south to Grenada.

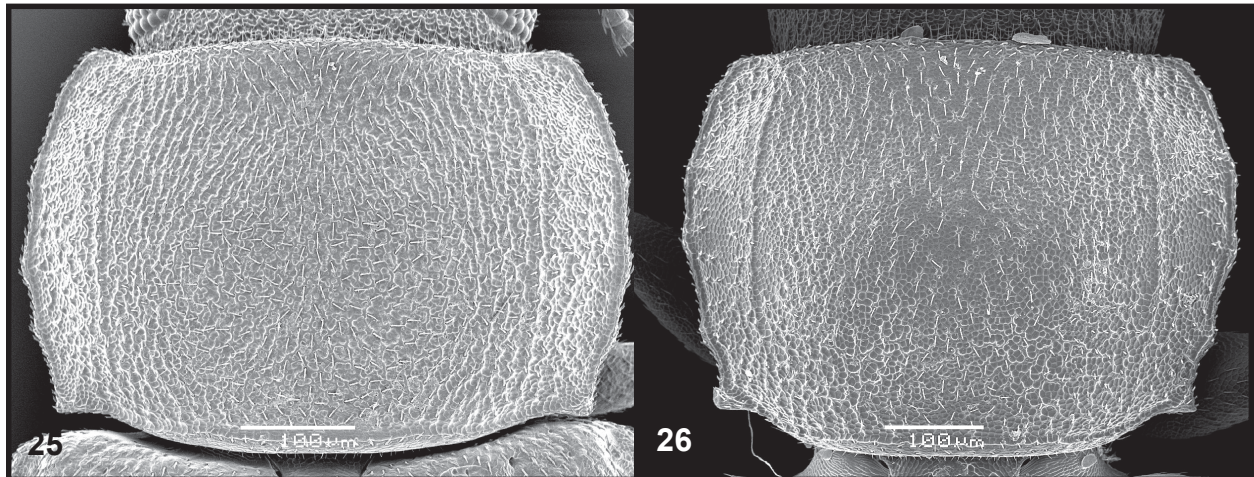


Figure 25-26. Pronotum, *Lathropus* spp. 25) *L. robustulus* Casey. 26) *L. vernalis* Casey.

Specimens examined: 127, USA: Florida: Alachua Co.: Gainesville; Bay Co.: 25.6496 -80.41075; Brevard Co.: Cape Canaveral; Broward Co.: 1 mi. N. Andytown; Ft. Lauderdale; Collier Co.: Fakahatchee Strand Preserve State Park; Dade Co.: 25.69951 -80.31346; Coral Gables, Camp Mahachie; Miami, Deering Estate Park; Highlands Co.: Highlands Hammock State Park; Monroe Co.: Key Largo; Palm Beach Co.: Jupiter; Loxahatchee; Putnam Co.: Katherine Ordway Pres.; Santa Rosa Co.: 30.36221 -87.14331; St. Lucie Co., Hutchinson Island; Sumter Co.: Lake Panasofkee; BAHAMAS: Andros Island: Maidenhair Coppice; Great Abaco: Marsh Harbour; DOMINICAN REPUBLIC: Pedernales: 25 km. N Cabo Rojo, 700m; Barahona: nr. Filipinas Larimar Mines; La Vega: Hotel Montaña; GRENADA: St. Andrews: Mirabeau Agric. Sta.; MONTSERRAT: Brades; ST. LUCIA: Union Agricultural Station; Gros Islet, Bonn Terra, Habitat; U.S. VIRGIN ISLANDS: St. Croix: Sprat Hall; Fredericksted, Est. William; St. John: Lameshur Bay.

Discussion. Thomas (1993) examined type material, designated lectotypes, and proposed the synonymy of *L. costatus* Grouvelle under *L. pictus* Schwarz. The amount of elytral maculation in this species is variable, ranging from almost entirely dark to almost entirely pale, although the maculation is usually visible. I have not seen a completely dark specimen; the few entirely pale specimens can be distinguished based on pronotal characters and male genitalia.

Lathropus robustulus Casey

Fig. 11, 18, 25, 28, 37, 41-45

Lathropus robustulus Casey 1916: 120

Diagnosis. Length, 1.18mm - 1.72mm. This is one of two entirely dark species treated in this paper. It differs from the other, *L. vernalis*, in its more evenly rounded pronotum with the less prominent basal angle clearly situated outside of a line drawn through the apical angle (Fig. 25). The surface sculpture of the pronotum is very coarse so that it appears dull, and there is no area of different sculpture (Fig. 28). The armature of the internal sac (Fig. 37, 42) is quite different from that of *L. vernalis* but is very similar to that of *L. parvulus*, which it resembles in many other respects as well, differing primarily in *L. parvulus* having a color pattern and different pronotal sculpture.

Distribution. Southern and central U.S., from Indiana south to Florida and west to Texas.

Specimens examined. 61, USA: Alabama: Jefferson Co.: Rocky Ridge; Walker Co.: Jasper; Florida: Alachua Co.: 29°34.5'N 82°29'W; Gainesville; Marion Co.: Village of Rainbow Springs; Indiana: Marion Co.: Indianapolis; Monroe Co.: Bloomington; Posey Co.: Hovey Lake; Kansas: Linn Co.: 4 mi. N

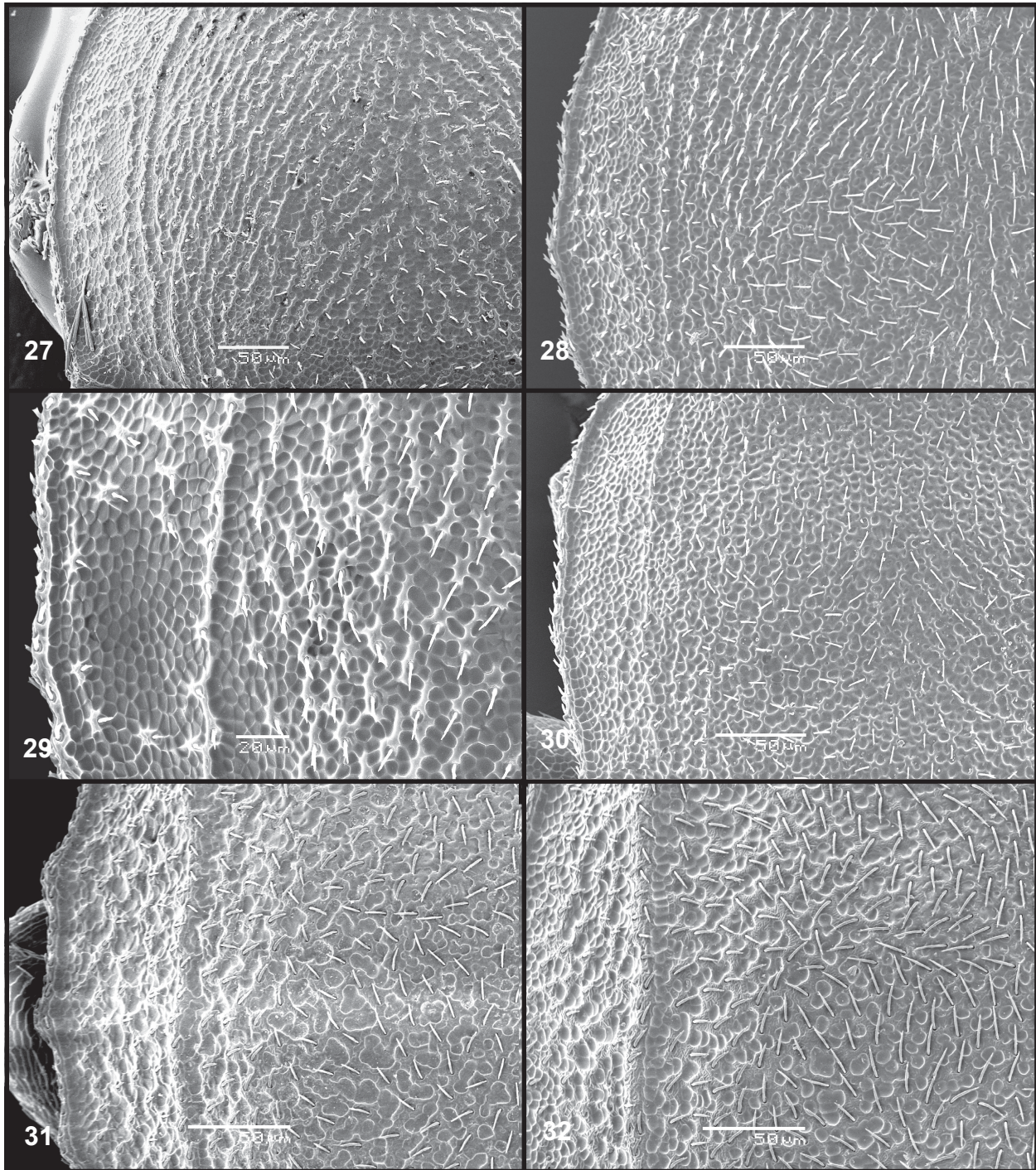


Figure 27-32. Pronotal detail, *Lathropus* spp. **27)** *L. parvulus* Grouvelle (Panama). **28)** *L. robustulus* Casey. **29)** *L. vernalis* Casey. **30)** *L. chickcharnie* Thomas, n. sp. **31)** *L. rhabdophloeoides* Thomas, n. sp. **32)** *L. jamaicensis* Thomas, n. sp.

Pleasanton Hwy. 69, Wildlife Area Unit C, E 1350 Rd.; **Mississippi: Noxubee Co.:** Noxubee N. W. Refuge; **Oktibbeha Co.:** Starkville T18N R14E sec. 2; **Winston Co.:** Norubee N.W. Refuge 33°16'05"N 88°48'53"W; **Oklahoma: Latimer Co.:** 5mi. W. Red Oak.

Discussion. Described from a “...single specimen, taken by Mr. Schwarz at Columbus, Texas.” (Casey 1916). I have examined the female holotype in the USNM, which has the following label data: “Columbu [?]-8 Texa” [part of the data have been cut away on this label]”CASEY bequest 1925”/”robustulus Csy.”/”Lathropus robustulus Csy”.

***Lathropus vernalis* Casey**

Fig. 12, 17, 26, 29, 36, 46

Lathropus vernalis Casey 1884: 95

Lathropus striatus Casey 1916: 119, **n. syn.**

Diagnosis. Length, 1.25mm - 1.78mm. This is one of the two generally dark brown to piceous species treated here. Color alone should separate it from all other species except *L. robustulus*, from which it differs in having the pronotum distinctly narrowed posteriorly so that the prominent basal angle is even with the anterior angle (Fig. 26); the lateral line of the pronotum is distinct and uninterrupted (Fig. 26); the elytra are proportionally longer; and it has an area of distinctly different surface sculpture laterally at the midline of the pronotum (Fig. 29). The armature of the internal sac is diagnostic (Fig. 36). In the female, the distal part of the gonocoxite is heavily pigmented (Fig. 46) and is clearly visible through the cuticle in specimens in alcohol. This is the only species with such a character among those treated here, but the female of the European *L. sepicola* (Müller) has both parts of the gonocoxite heavily pigmented.

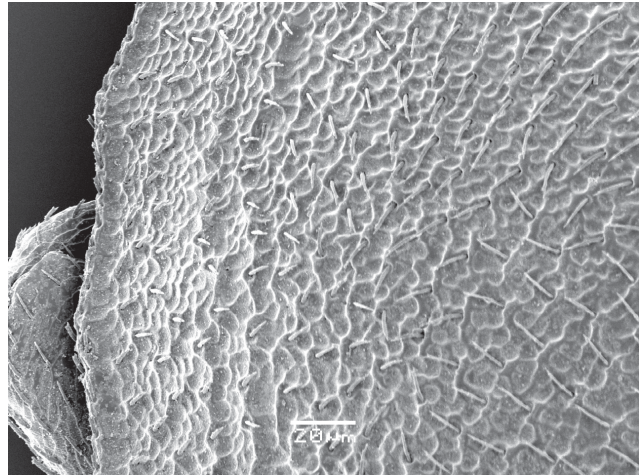


Figure 33. Pronotal detail, *Lathropus pictus* Schwarz

Distribution. Eastern North America from Canada south to central Florida and west to Oklahoma and Texas.

Specimens examined. 112, **CANADA:** Ontario: Kent Co.: Tilbury; **USA:** Alabama: Dale Co.: Ft. Rucker Military Reservation; Escambia Co.: 3.4 mi. SW Dixie; Florida: Alachua Co.: .2 mi. W Melrose; 29°34 1/2'N 82°29'W; Hernando Co.: Withlacoochee State Forest, Richloam Unit; Highlands Co.: 2 mi. S Sebring; Archbold Biological Station; Okaloosa Co.: 1.9 mi. WNW Holt; Okaloosa Co.: 3.8 mi. E Crestview; Santa Rosa Co.: 1.7 mi. N Munson; Maryland: Prince George's Co.: College Park; Michigan: Washtenaw Co.: Whitmore Lake; Mississippi: Desoto Co.: hwy. 61, 2.5 mi. SW jct. 302; Noxubee Co.: Noxubee N.W. Refuge; Winston Co.: Noxubee N.W. Refuge; New Jersey: Burlington Co.: 5 mi. NW Chatsworth; New York: Albany Co.: Albany pine barrens; Oklahoma: Latimer Co.; South Dakota: Brookings Co.: McCrory Gardens.

Discussion. Thomas (1993) discussed the history of this name, which is repeated here:

“LeConte (1866:379) reported the occurrence of *Lathropus* in North America, based on specimens collected in Washington, D.C. and California, but did not describe any species. LeConte (*in* Zimmermann 1869:257) pointed out that Zimmermann had used *vernalis* as a manuscript name, but that the species was still undescribed. Nevertheless, Crotch (1873:45) used the name, crediting it to LeConte, and Hubbard and Schwarz (1878:634, 652) listed “*Lathropus vernalis* Lec.” in their work on the Coleoptera of Michigan. Casey (1884:95) used the name again in connection with a detailed description. This was the first time that *vernalis* had been used validly and thus Casey is the actual author of *Lathropus vernalis*, a fact to which he later called attention (Casey 1916: 118). All previous uses are *nomina nuda*. Despite this, Leng (1920:200) and Hetschko (1930:45) cited LeConte (1866:379) as the author of *vernalis*.”



Figure 34-37. Sclerotization of internal sac, *Lathropus* spp. **34)** *L. parvulus* Grouvelle. **35)** *L. pictus* Schwarz. **36)** *L. vernalis* Casey. **37)** *L. robustulus* Casey.



Figure 38-40. Sclerotization of internal sac, *Lathropus* spp. 38) *L. chickcharnie* Thomas, n. sp. 39) *L. jamaicensis*. Thomas, n. sp. 40) *L. rhabdophloeoides* Thomas, n. sp.

Casey (1884) was not aware that he was providing the first description of this species and he designated no type specimens. Thomas (1993) listed the specimens of *Lathropus vernalis* in the LeConte collection at the Museum of Comparative Zoology, to which Casey probably had access. I have since examined four specimens in the Casey collection at the USNM. Label data for them are: "N.J." CASEY bequest 1925" *Lathropus vernalis* Lec."; "N.Y." CASEY bequest 1925" CASEY determ. *vernal*is - 2"; "C.A. Frost Framingham [?]-21-12 Mass." CASEY bequest 1925" CASEY determ. *vernal*is - 3"; "N.J." CASEY bequest 1925" CASEY determ. *vernal*is - 4". The third specimen cannot be part of the original series as it was collected decades after the description. The other three are within Casey's stated geographical range of "Atlantic and Mississippi regions." In the interest of stability, I here select the first listed specimen as **lectotype**.

I have examined the female holotype of *Lathropus striatus* Casey, with label data as follow: "Detroit June" CASEY bequest 1925" TYPE USNM 49147" *striatus* Csy" *Lathropus striatus* Csy". It is conspecific with the lectotype of *L. vernalis*, **new synonym**.

The treatment of this species by Thomas (1993) included true *L. vernalis* plus *L. robustulus* and an unrecognized new species described below, none of which could be distinguished at the time.

Casey (1916) suggested that *L. vernalis* and *L. sepicola* might be conspecific. Based on an examination of two female specimens of *L. sepicola* I conclude that while the two species are similar they are not conspecific. The European species differs from *L. vernalis* in having red legs and both gonacoxites deeply pigmented and in lacking the differently sculptured area on the pronotum.

***Lathropus chickcharnie* Thomas, n. sp.**

Fig. 4, 10, 16, 24, 30, 38, 51, 62

Diagnosis. Length, 1.09mm - 1.28mm. The combination of the following character states is diagnostic for this species: body orange-testaceous, with transverse dark bands at base, middle, and apex of elytra (Fig. 4); pronotum relatively narrow with lateral margins not distinctly undulating (Fig. 24); sublateral line partially effaced; pronotum densely, confusedly punctate (Fig. 30); male genitalia as in Fig. 38.

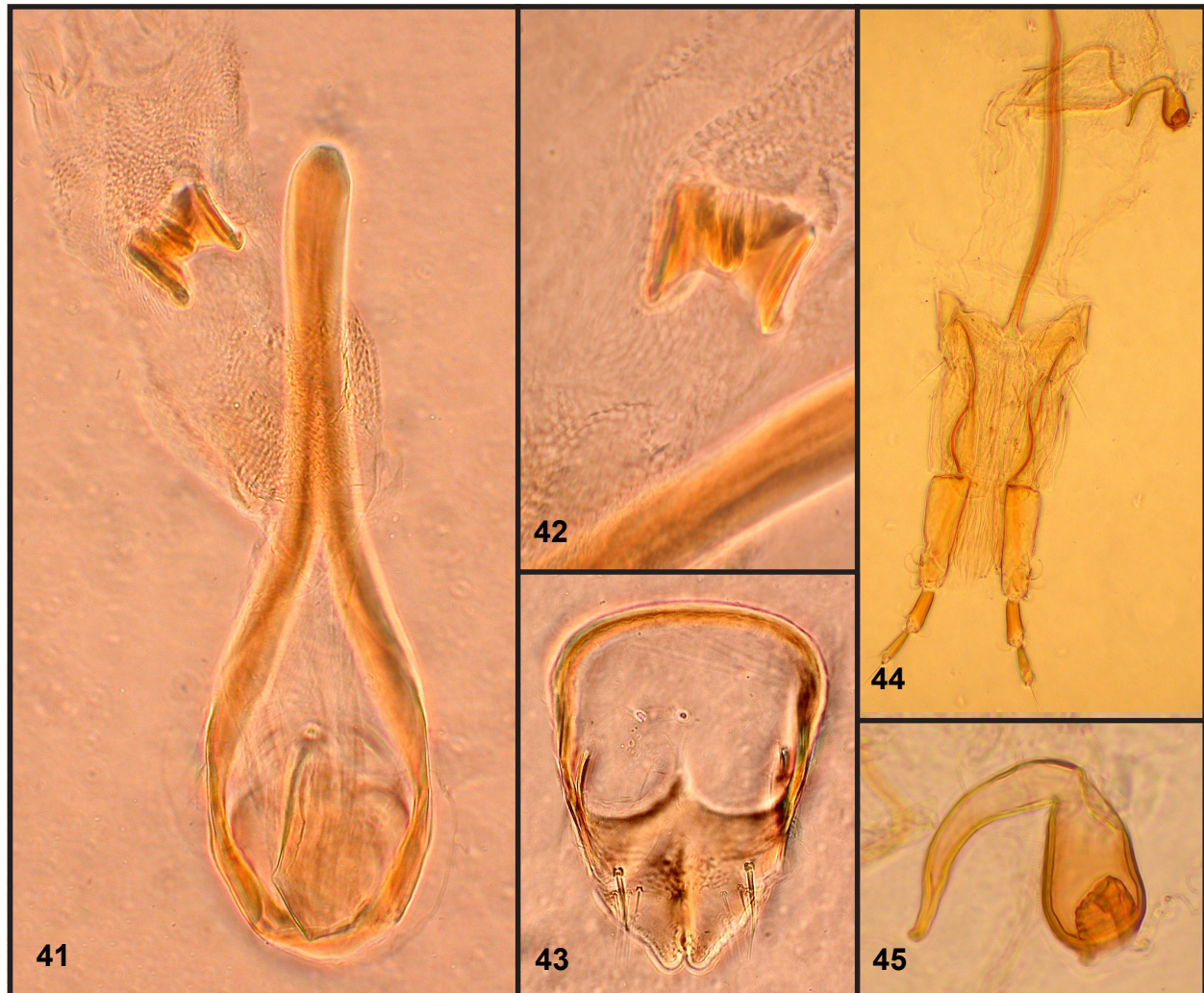


Figure 41-45. *Lathropus robustulus* Casey, male and female genitalia. 41) Aedeagus. 42) Sclerotization of internal sac (enlarged). 43) Tegmen. 44) Female genitalia. 45) Spermatheca (enlarged).

Description. Holotype, sex not determined, in FSCA, with label data: “BAHAMAS: Andros Uncle Charlies Blue Hole 7 June 2001 R. Turnbow”.

Body elongate-oval; orange testaceous, mouthparts paler; elytra with dark transverse bands at base, apical two-thirds, and at apex (Fig. 4). Length, 1.30mm.

Head 2.00× wider than long; surface sculpture extremely coarse (Fig. 16); setae bifurcate; epistome prolonged, comprising 0.37 total length of head measured along midline from front of eyes to front of head capsule, emarginate; antennal scape and pedicel subequal in length, scape and pedicel almost equal in width; antennomeres III-VIII quadrate, about equal in length; antennomeres IX-X broader and longer than preceding flagellar antennomeres; XI longer than X; eye slightly convex, about 0.62 length of head.

Pronotum (Fig. 24) 1.33× wider than long; surface sculpture extremely coarsely areolate-rugose (Fig. 30); setae as on head; broadest at about middle, broader across base than at apex; sublateral line faint, almost effaced; anterior angles rounded, not produced; posterior angles almost right, moderately produced; broad teeth on lateral margins barely indicated.

Elytra 1.61× longer than combined width; broadest near midlength; margins narrowly explanate; microsculpture coriarius.

Genitalia. Sclerotization of internal sac of male genitalia as in Fig. 38.

Variation. The degree of development of the lateral pronotal denticles varies from barely indicated to not discernible.

Distribution. Bahamas.

Type material. Paratypes, 18, with label data as follows: 9, “BAHAMAS: Andros Uncle Charlies Blue Hole, 7 June 2001 R. Turnbow” (RHTC); 1, “BAHAMAS: Andros Island Uncle Charlie’s Blue Hole 7-VI-2001; beating coll. M. C. Thomas” (FSCA); 8, “BAHAMAS: Great Abaco Marsh Harbour, Pinewoods Nursery 22-XII-1990 R. Keys blacklight trap” (FSCA, USNM).

Etymology. This species is named after the chickcharnie, a mythical forest creature unique to Andros Island in the Bahamas. It is used as a noun in apposition.

Discussion. Most of the Andros Island specimens of this species were collected by beating small, burned hardwood trees on which was growing an orange, powdery fungus.

***Lathropus jamaicensis* Thomas, n. sp.**

Fig. 7, 13, 21, 32, 39, 53

Diagnosis. Length, 1.24mm - 1.68mm. This and the following species are distinct in being unicolorous testaceous and in having well-developed pronotal sublateral lines (Fig. 21). From the following species, *L. jamaicensis* can be distinguished by its more strongly developed sublateral line and by the structure of the internal sac (Fig. 39).

Description. Holotype, sex not determined, in FSCA, with label data: “JAMAICA: St. Catherine Caymanas Est. 17-XI-1968 S.A. Apeji blacklight trap”.

Body (Fig. 7) elongate-oval; testaceous, mouthparts paler. Length, 1.58mm.

Head 1.75× wider than long; surface sculpture extremely coarse (Fig. 13); setae bifurcate; epistome prolonged, comprising 0.33 total length of head measured along midline from front of eyes to front of head capsule, emarginate; antennal scape and pedicel subequal in length, scape broad, pedicel narrower; antennomeres III-VIII quadrate, about equal in length; antennomeres IX-X broader and longer than preceding flagellar antennomeres; XI longer than X; eye slightly convex, about 0.60 length of head.

Pronotum (Fig. 21) 1.36× wider than long; surface sculpture extremely coarsely areolate-rugose (Fig. 32); setae as on head; broadest at basal third, broader across base than at apex; sublateral line sinuate, strongly carinate (Fig. 21); anterior angles obtuse, not produced; posterior angles almost right, not produced; lateral margins with four broad denticles.

Elytra 1.60× longer than combined width; broadest near midlength; margins broadly explanate; microsculpture coriarius.

Genitalia. Sclerotization of internal sac of male genitalia as in Fig. 39.

Variation. The degree of development of the lateral pronotal denticles varies but is always discernible.

Distribution. Jamaica.



Figure 46. *Lathropus vernalis* Casey, female genitalia.

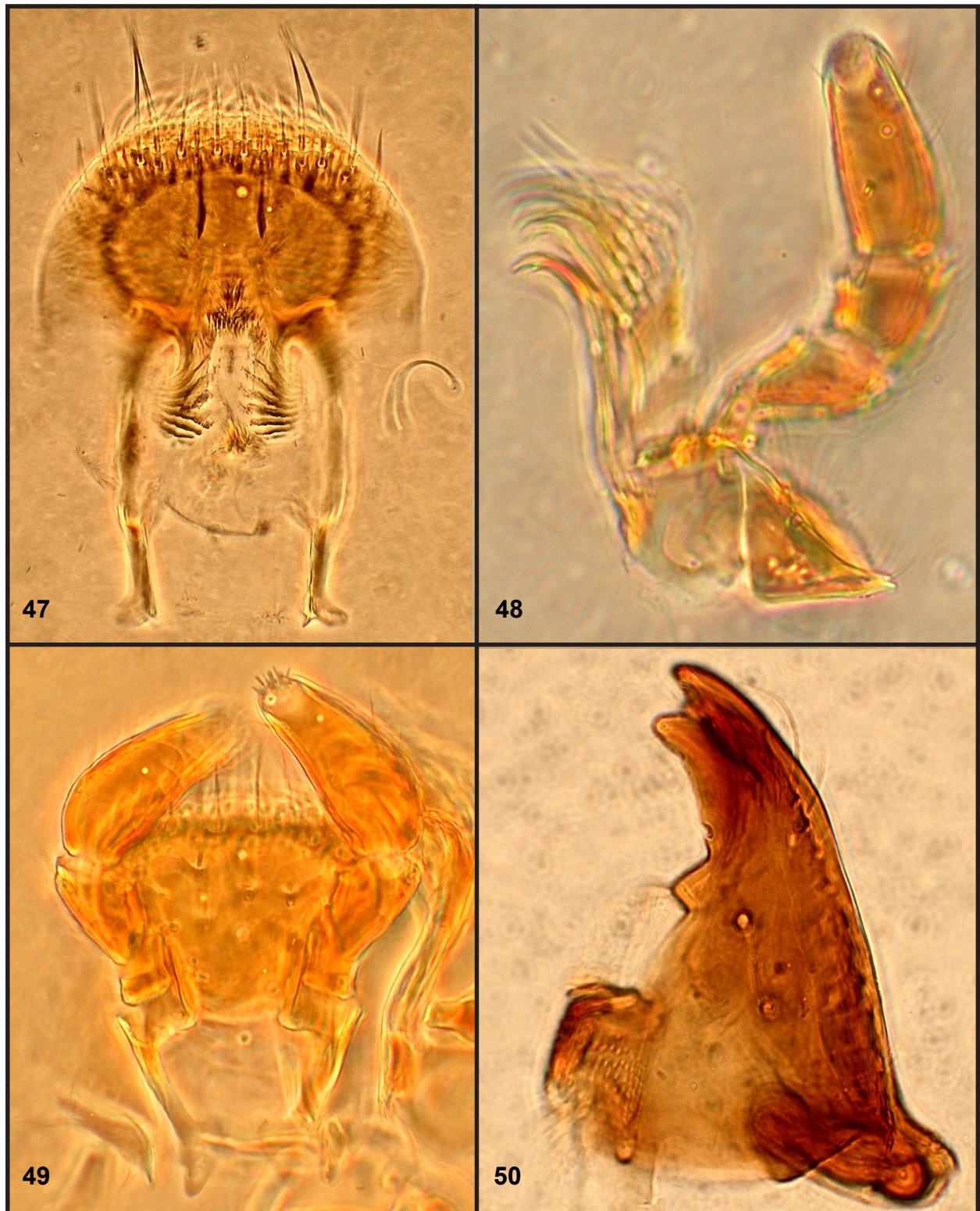


Figure 47-50. *Lathropus rhabdophloeoides* Thomas, n. sp., mouthparts. 47) Labrum. 48) Maxilla. 49) Labium. 50) Mandible.

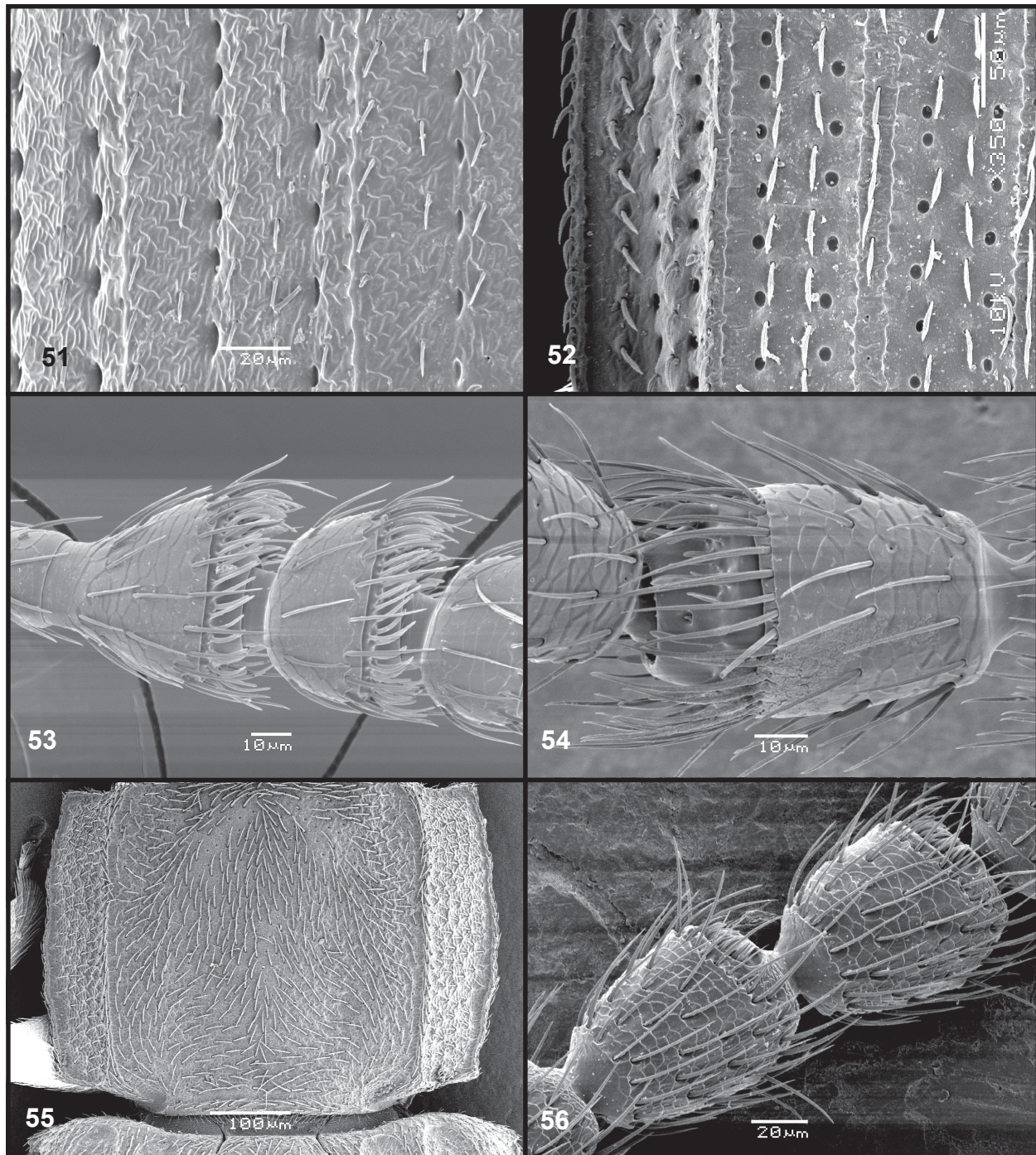


Figure 51-56. 51) *Lathropus chickcharnie* Thomas, n. sp., elytral cell. 52) N. gen, n. sp., elytral cell. 53) *Lathropus jamaicensis* Thomas, n. sp., antennal club. 54) N. gen, n. sp., antennal club. 55) *Rhabdophloeus* sp., Brazil, pronotum. 56) *Rhabdophloeus* sp., Brazil, antennal club.

Type material. Paratypes, 33, with label data as follows: 23, "JAMAICA: St. Andrew, Kingston, Liguanea Terrace Hotel, 29-X-1968 M.H. Muma, blacklight trap"; 5, "JAMAICA: Parrish St. Catherine Worthy Park Est. 11-VI-1975 R. E. Woodruff blacklight trap"; 1, "JAMAICA: St. Catherine Par., Worthy Park 15-VI-1975 R. E. Woodruff blacklight trap"; 7, "JAMAICA: St. Catherine Caymanas Est., 17-XI-1968, S.A. Apeji blacklight trap"; 4, "JAMAICA: Manchester Par. Mandeville 23-VIII-1969 J.H. Frank blacklight trap"; all FSCA and USNM.

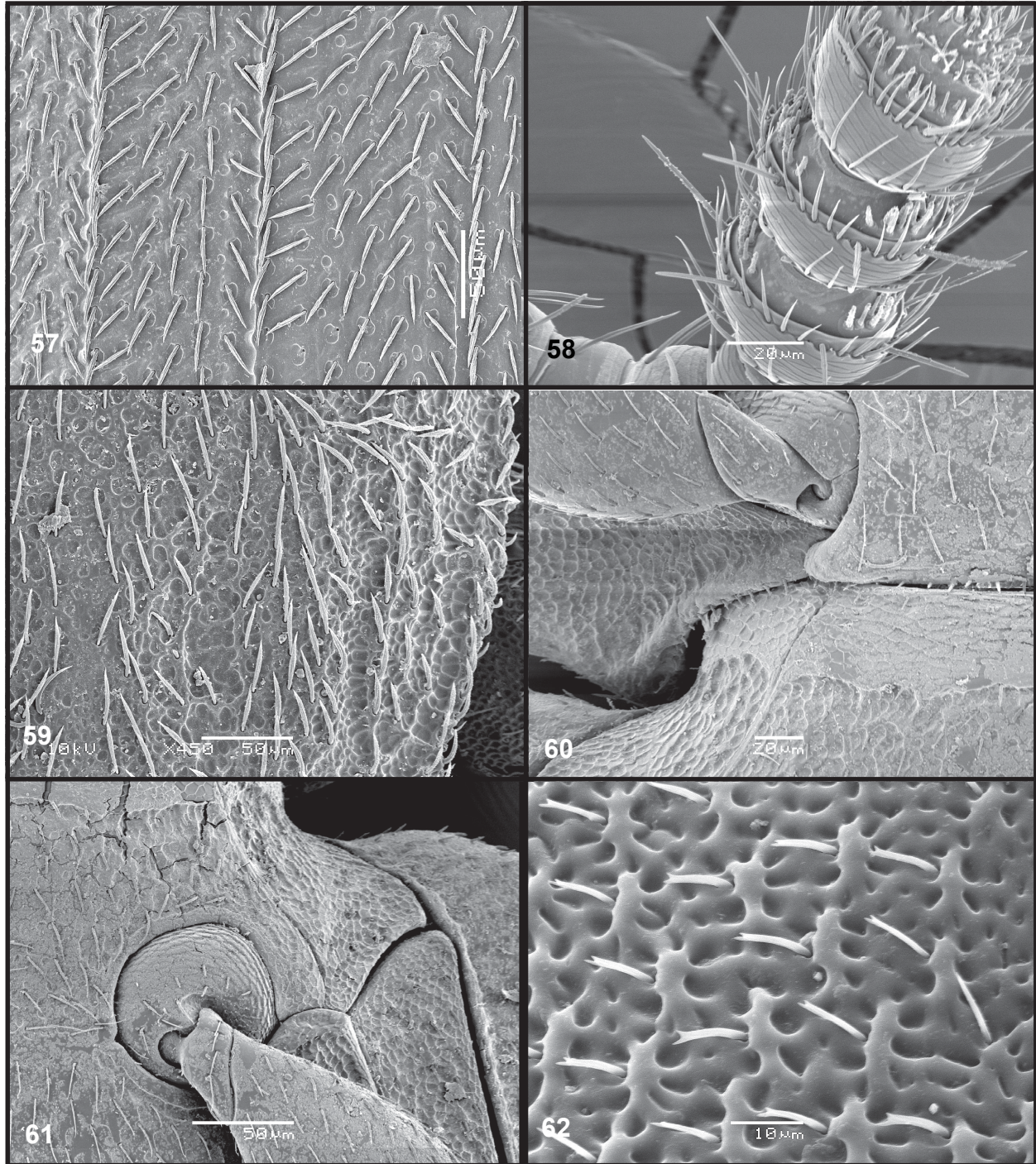


Figure 57-61. 57) *Carinophloeus raffrayi* (Grouvelle), elytral cell. 58) *C. raffrayi* (Grouvelle), antennal club. 59) N. gen, n. sp., pronotal detail. 60) *Lathropus rhabdophloeoides* Thomas, n. sp., procoxal cavity. 61) *Lathropus rhabdophloeoides* Thomas, n. sp., mesocoxa and surrounding sclerites. 62) *Lathropus chickcharnie* Thomas, n. sp., bifurcate setae of head.

Etymology. Named for the island on which it was collected and to which it may be endemic.

Discussion. This is one of the most distinct species of their genus and it and the following species approach most closely to members of the genus *Rhabdophloeus* in shape of the pronotum and possessing a carinate sublateral line.

***Lathropus rhabdophloeoides* Thomas, n. sp.**

Fig. 8, 14, 22, 31, 40, 47-50, 60, 61

Diagnosis. Length, 1.12mm - 1.74mm. The adults of this species are similar to those of *L. jamaicensis*, differing primarily in their less developed sublateral line (Fig. 31) and in the armature of the internal sac (Fig. 40).

Description. Holotype, female, in FSCA, with label data: "BAHAMAS: Andros Island Uncle Charlie's Blue Hole 7-VI-2001; beating coll. M.C. Thomas"

Body (Fig. 8) elongate-oval; dark testaceous, mouthparts paler. Length, 1.72mm.

Head 1.80× wider than long; surface sculpture extremely coarse (Fig. 14); setae bifurcate; epistome prolonged, comprising 0.36 total length of head measured along midline from front of eyes to front of head capsule, emarginate; antennal scape and pedicel subequal in length, scape broad, pedicel narrower; antennomeres III-VIII quadrate, about equal in length; antennomeres IX-X broader and longer than preceding flagellar antennomeres; XI longer than X; eye slightly convex, about 0.54 length of head.

Pronotum (Fig. 22) 1.40× wider than long; surface sculpture extremely coarsely areolate-rugose (Fig. 31); setae as on head; broadest at basal third, broader across base than at apex; sublateral line sinuate, strongly carinate (Fig. 22); anterior angles obtuse, not produced; posterior angles almost right, not produced; lateral margins with four broad denticles.

Elytra 1.53× longer than combined width; broadest near midlength; margins broadly explanate; microsculpture coriarius.

Genitalia. Sclerotization of internal sac of male genitalia as in Fig. 40.

Variation. The degree of development of the lateral pronotal denticles varies from well developed to not discernible.

Distribution. Florida, Bahamas, Cuba, Hispaniola, Virgin Islands.

Type material. Paratypes, 75, with label data as follows: 1, "BAHAMAS: Andros Island Cpt. Bill's Blue Hole; 27-VII-2006; MC Thomas beating vegetation" (FSCA); 1, "BAHAMAS: Andros Forfar Field Station bl trap, 26 July 2006 R. Turnbow" (RHTC); 1, "BAHAMAS: Andros Island Forfar Field Sta., Stafford Creek, 4-VI-2001, M.C. Thomas, blacklight trap in coastal coppice" (FSCA); 1, "BAHAMAS: Andros Is. Maidenhair Coppice 9-VI-2001 M.C. Thomas" (FSCA); 8, "BAHAMAS: Andros Is. Maidenhair Coppice 10-VI-2004 M.C. Thomas" (FSCA); 6, "BAHAMAS: Andros Island Uncle Charlies Blue Hole 7-VI-2001 coll. M.C. Thomas beating" (FSCA); 24, "BAHAMAS: Andros Uncle Charlies Blue Hole 7 June 2001 R. Turnbow" (RHTC); 26, "BAHAMAS: Great Abaco Marsh Harbour, Pinewoods Nursery 22-XII-1990 R. Keys blacklight trap" (FSCA, USNM); 4, "BAHAMAS: Great Abaco Marsh Harbour, Pinewoods Nursery 17-XI-1990 R. Keys blacklight trap" (FSCA); 1, "BAHAMAS: Great Inagua, Northwest Point, 9 July 2007 R. Turnbow" (RHTC); 1, "BAHAMAS: Long Island Stella Maris 7-I-1977 Coll: R.M. Baranowski blacklight trap" (FSCA); 1, "BAHAMAS: Long Island Hard Bargain 27-VI-1972 coll. F.D. Bennett blacklight trap" (FSCA).

Other specimens examined. In addition to the type series from the Bahamas, another 67 specimens were examined from the British Virgin Islands, Cuba, Dominican Republic, and Florida in the USA. Label data for those specimens are summarized in Table 1. All are deposited in the FSCA and RHTC.

Etymology. The species epithet refers to its resemblance to members of the genus *Rhabdophloeus* Sharp.

Discussion. There are a number of Florida specimens that are similar to this species in being unicolored testaceous but which have different genitalia. Their status is still uncertain and they are not dealt with in this review.

Key to the adults of *Lathropus* Erichson in Florida and the West Indies, excluding the Lesser Antilles

1. Elytra with a color pattern (Fig. 1-4) 5
 — Elytra without a color pattern 2
- 2(1). Sublateral line of pronotum carinate and complete (Fig. 21-22); color usually testaceous; occurring in Florida and the West Indies 3
 — Sublateral line of pronotum obsolescent or broken (Fig. 25-26); color dark brown to piceous; not known from the West Indies 4
- 3(2). Sublateral line more strongly carinate (Fig. 21); pronotum not constricted at base; armature of internal sac as in Fig. 39. Jamaica *L. jamaicensis* Thomas, n. sp.
 — Sublateral line less strongly carinate (Fig. 22); pronotum slightly constricted at base; armature of internal sac as in Fig. 40. Florida and the West Indies
 *L. rhabdophloeoides* Thomas, n. sp.
- 4(2). Pronotum more or less evenly rounded laterally, widest at about middle (Fig. 25); pronotal sculpture even over entire surface (Fig. 28); armature of internal sac as in Fig. 37, 42. eastern U.S. including Florida *L. robustulus* Casey
 — Pronotum distinctly constricted basally, widest before middle (Fig. 26); pronotum with an area of obviously different sculpture laterally (Fig. 29); armature of internal sac as in Fig. 36. eastern U.S. including Florida *L. vernalis* Casey
- 5(1). Elytral color pattern consisting of irregular dark blotches (Fig. 3); ground color brownish yellow; armature of internal sac as in Fig. 35. Florida, West Indies *L. pictus* Schwarz
 — Elytral color pattern consisting of transverse bands; ground color orange 6
- 6(5). Elytra pale with transverse dark bands at base, middle and apex (Fig. 4); armature of internal sac as in Fig. 38. Bahamas *L. chickcharnie* Thomas, n. sp.
 — Elytra dark with a pale transverse band at basal 1/3 (Fig. 1-2); armature of internal sac as in Fig. 34. Central America, Cayman Islands *L. parvulus* Grouvelle

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This study would not have been possible without the specimens supplied by the Cooperative Agricultural Pest Survey (CAPS) and especially John Leavengood who made a special effort to set aside specimens of this genus from trap samples. Having an abundance of specimens to dissect and study under the SEM proved critical in discovering characters useful in distinguishing species. I am especially grateful to Andy Cline and Floyd Shockley for their careful and useful reviews of the manuscript. Two of the new species were first discovered during collecting trips to the Bahamas partially supported by the Florida Department of Agriculture and Consumer Services, Division of Plant Industry. Robert Turnbow collected many of the Bahamian specimens used in this study. For permits to collect on Andros Island and Great Inagua, I thank the Bahamian Department of Agriculture and the Bahamas National Trust; and for making the Andros trips possible I thank International Field Studies, Inc., and especially the personnel at Forfar Field Station. Collecting in the Cayman Islands was made possible by the Cayman Islands Department of the Environment, and especially Mat Cottam, which provided permits and invaluable logistical support.

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Table 1. Label data of non-type specimens examined of *Lathropus rhabdophloeoides* Thomas, n. sp.

Country	St./Isl/Prov.	County	Locality	Date	Collector	Notes	#
British Virgin Islands	Guana			1-7-X-2001	B. & B. Valentine	Lindgren funnel	1
Cuba			Guantanamo Bay, U.S. Navy Base	9-II-1965		blacklight trap	1
Cuba			Guantanamo Bay, U.S. Navy Base	10-II-1965		blacklight trap	5
Cuba			Guantanamo US Navy Base	3-IX-1964	T.S. Josey	blacklight trap	1
Cuba			Guantanamo US Navy Base	29-VII-1965		blacklight trap	1
Dominican Republic	Pedernales		km. 24.5 N Cabo Rojo	2-VII-1998	R. Woodruff, R. Baranowski	blacklight trap	1
Dominican Republic			25km N. Cabo Rojo, 700m	12-VII-1996	M.C. Thomas	blacklight trap	1
Dominican Republic			Bonao	29-VIII-1997	C. O'Brien	blacklight	1
Dominican Republic			Bonao	30-VII-1997	C. O'Brien	blacklight	2
USA	Florida	Alachua Co.	Gainesville	17-III-1984	M.C. Thomas	rain tree	1
USA	Florida	Brevard Co.	Kennedy Space Center	23-III-1990	M.C. Thomas	Lindgren funnel trap baited w/ETOH	1
USA	Florida	Broward Co.	Ft. Lauderdale	3-I-2007	M. Meadows	blacklight trap	10
USA	Florida	Dade Co.	Camp Mahachee	VI-VII-1993	J. Gleason	blacklight trap	3
USA	Florida	Dade Co.	Camp Mahachee, nr. Matheson Hammock	27-V-1983	MCThomas & LParker	blacklight trap	1
USA	Florida	Dade Co.	Camp Mahachee, nr. Matheson Hammock	6-IX-1983	MCThomas & LParker	blacklight trap	2
USA	Florida	Dade Co.	Camp Mahachee, nr. Matheson Hammock	23-31-VII-1998	J.&N. Gleason	blacklight trap	1
USA	Florida	Dade Co.	Coral Gables Girl Scout Camp Mahachee	1-7-VII-1998	J.&N. Gleason	blacklight trap	1
USA	Florida	Dade Co.	Coral Gables Girl Scout Camp Mahachee	17-27-VI-1998	J.&N. Gleason	blacklight trap	2
USA	Florida	Dade Co.	Coral Gables Girl Scout Camp Mahachee	10-IV-1993	M.C. Thomas	blacklight trap	1
USA	Florida	Dade Co.	Virginia Key	23-II-2007	M. Meadows	Lindgren funnel trap baited w/ETOH	3
USA	Florida	Dixie Co.	Miami	21-V-1978	R.E. Woodruff & S.A. Fragoso	blacklight trap	1
USA	Florida	Highlands Co.	3.5mi. N. Old Town, Rt. 349	18-19-III-1986	Mark Deyrup	window trap, burn area	1
USA	Florida	Highlands Co.	Lake Placid, Archbold Biol. Sta.	5-10-II-2003	M. Deyrup	Lindgren funnel trap in scrub, burned X-2002	2
USA	Florida	Hillborough Co.	Fort Lonely	15-III-2007	D. Gaskill	Lindgren funnel trap baited w/ETOH	6
USA	Florida	Marion Co.	Village of Rainbow Springs	5-V-1982	M.C. Thomas	emerged ex. Bursera simaruba (L.) Sarg.	3
USA	Florida	Monroe Co.	Key Largo	26-31 July 1977	R. Turnbow	emerged ex Bursera simaruba (L.) Sarg.	1
USA	Florida	Monroe Co.	Key Largo	9-15 July 1977	R. Turnbow	emerged ex Bursera simaruba (L.) Sarg.	5
USA	Florida	Monroe Co.	Plantation Key	8-IV-1966	F.W. Mead Collector	blacklight trap	1
USA	Florida	Monroe Co.	Upper Key Largo	1-IV-1976	M.C. Thomas	blacklight trap	3
USA	Florida	Monroe Co.	Upper Key Largo	3-IV-1976	M.C. Thomas & J.H. Frank	blacklight trap	1
USA	Florida	St. Lucie Co.	nr. Jensen Beach, Imi. S. power plant SR A1A		K. Hibbard	under bark of Casuarina sp.	2

