

**Further Studies Among the Mexican and Central  
American Lepturine Cerambycidae related to  
*Euryptera* and *Choriolaus***  
(Coleoptera)

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During the preparation of the volume on Lepturinae for the Cerambycidae of North America, it has been necessary to re-examine the generic status of many of the representatives of this subfamily which have been described from Mexico and Central America. Some of these studies, as they relate to genera and species in the *Euryptera-Choriolaus* complex have been published previously (Linsley, 1961, 1970; Linsley and Chemsak, 1971; Chemsak and Linsley, 1974). Generic assignments in these and publications of earlier writers are now revised and updated and some of the more significant new genera and species now available are described.

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GENUS CHORIOLAUS BATES

*Choriolaus* Bates, 1885, *Biologia Centrali-Americana*, Coleoptera, 5:283; Boppe, 1921, *Genera Insectorum*, 178:107; Chemsak, 1964, *Pan-Pacific Ent.*, 40:232 (designation of type species); Linsley and Chemsak, 1971, *Arquivos de Zoologia*, 21:6.

Form moderately robust, elytra not attenuated, sides subparallel or very feebly expanded before rounding to apices. Head moderately elongate; eyes emarginate; antennal insertions adjacent to upper inner edge of lower lobe of eyes, widest anterior portion of lower lobes extending slightly beneath insertions but lobes not embracing them; antennae filiform, outer segments not distinctly swollen or subserrate, first four and one-half segments shining, moderately finely, densely punctate, usually with coarse, semi-erect black hairs, segments five to eleven dull, minutely, densely punctate, densely clothed with very short, appressed pubescence, third segment elongate, subequal in length to scape, nearly as long or as long

as fifth segment, fourth segment slightly shorter than both third and fifth, poriferous areas of outer segments small or obsolete. Pronotum narrowly campanuliform, sides slightly rounded at middle, length subequal to basal width, punctation of disc as coarse as or coarser than that of base of elytra, posterior angles acute, extending over humeri; prosternum very narrow and laminiform between anterior coxae, coxae prominent, exerted, cavities closed behind; mesosternum with intercoxal process at midpoint between coxae distinctly narrower than vertical diameter of base of intermediate femora. Elytra without costae; apices rounded to outer angle which is feebly to distinctly dentiform. Legs with posterior tarsi usually slightly longer than tibiae in the male and subequal in length to tibiae in female. Abdomen with last sternite rotundate-truncate in male, rounded in female.

*Type species.*—*Choriolaus latescens* Bates (Chemsak designation, 1964).

As restricted above, *Choriolaus* may be distinguished among related genera here discussed by the moderate, rather than small or large size, filiform antennae which are not distinctly enlarged or subserrate apically, and the moderately coarsely punctate pronotum with the punctures subequal in size to, or larger than, those of the base of the elytra. In addition to *C. latescens* Bates and *C. aegrotus* Bates from Oaxaca, both originally included in the genus by Bates, the following species fall within the present definition of the genus: *celestae* Chemsak and Linsley, new combination (*Megachoriolaus*) (Chiapas), *filicornis* Linsley and Chemsak, new combination (*Megachoriolaus*) (Chiapas), *gracilis* Chemsak and Linsley, new combination (*Megachoriolaus*) (Costa Rica), *sabinoensis* Knull, new combination (*Euryptera*) (Arizona), and the new species described below.

#### KEY TO THE SPECIES OF CHORIOLAUS

- |       |   |                    |
|-------|---|--------------------|
| 1.    | Posterior tarsi distinctly shorter than posterior tibiae .....  | 2                  |
|       | Posterior tarsi subequal to or longer than posterior tibiae .....   | 3                  |
| 2(1). | Body wholly rufo-testaceous except antennae, apices of femora, tibiae and tarsi which are black; eyes small; antennal sockets completely outside of ocular emargination .....   | <i>sabinoensis</i> |
|       | Body dark brownish-black; face above clypeus, vertex, neck, pronotum at sides, intercoxal process of prosternum, and elytra golden yellow; eyes moderate, antennal sockets adjacent to and slightly within lower lobe of eye, but not embraced by eye ..... | <i>filicornis</i>  |
| 3(1). | Head yellowish-orange or yellowish-testaceous .....   | 4                  |
|       | Head black .....  | 6                  |
| 4(3). | Elytra red or scarlet; elytra with punctures mostly separated by one or two diameters .....   | 5                  |
|       | Body yellowish-testaceous except eyes, antennae, extreme apices of femora, tibiae and tarsi which are black, and the sterna which are dark brownish-black margined with yellow; elytra with punctures mostly separated by less than one diameter .....      | <i>aegrotus</i>    |

- 5(4). Head and pronotum yellowish-orange; elytra scarlet; legs, including coxae, mesosternum, metasternum and abdomen black; pronotum finely, densely punctate, punctures mostly contiguous ..... *celestae*  
 Head, entire ventral surface, and femora except apically, yellowish-orange; pronotum and elytra reddish; pronotum with punctures mostly separated ..... *gracilis*
- 6(3). Dark brown, pronotum and prosternum, basal three-fifths of elytra, and femora golden yellow; elytra with external angle of apices acutely dentiform ..... *lutescens*  
 Black, pronotum and elytra rufo-testaceous; elytra with external angle feebly dentate ..... *derhami*

### ***Choriolaus derhami*, new species**

Male: Moderate sized; integument black, pronotum and elytra rufo-testaceous, appendages brownish-black. Head moderately elongate, distance from anterior margins of antennal sockets to apex of clypeus shorter than width of face across genae; widest anterior portion of lower lobe of eye extending slightly beneath antennal insertions; vertex minutely, densely punctate, with coarse, confluent punctures superimposed, pubescence more or less transversely appressed, not obscuring surface; frons concave, with a median longitudinal groove, surface subopaque, densely, variolately, confluent punctate, sparsely clothed with appressed pubescence; clypeus minutely, densely punctate with coarser punctures superimposed; antennae extending nearly to apical one-fifth of elytra, first four and one-half segments shining, moderately finely punctate, with some appressed coarse black bristles, remaining segments dull, minutely, densely punctate, clothed with very short, appressed pubescence, scape slightly shorter than third segment, second segment short, broader than long, third segment longest, fourth segment shorter than scape but only slightly shorter than fifth, sixth segment slightly shorter than fifth, subequal to fourth, remaining segments successively shorter to eleventh, which is distinctly longer than tenth with apex subconical, pale orange. Pronotum wider than long (1.28:1.00), surface, except midline, densely, moderately coarsely punctate, thinly clothed with moderately long, appressed, golden pubescence; posterior disc slightly impressed, shining, sparsely punctate; thoracic sterna shining, finely moderately densely punctate, clothed with moderately long appressed and suberect golden pubescence which does not obscure the surface. Elytra about 2.4 times as long as basal width; surface rather densely punctate, punctures distinctly smaller than those of pronotum; apices rounded to outer angle which is distinct but at most feebly dentate. Legs with posterior tarsi not quite as long as tibiae, first segment longer than remaining segments together. Abdomen with sternites shining, finely, moderately densely punctate, more sparsely so at middle of first three, pubescence moderately long, appressed and suberect, sparser medially; last sternite feebly longitudinally impressed at middle over basal one-half, apex rotundate-truncate. Length, 11.5 mm.

*Holotype male*.—30 MILES NORTHEAST OF TEHUANTEPEC, OAXACA, MEXICO, 8 July 1955, Derham Giuliani (CAS).

This species differs immediately from *C. lutescens* Bates in coloration (in *C. lutescens* the basal half of the elytra, the anterior coxae and the

Oaxaca, 8 July 1955 (Derham Giuliani) which extends the range significantly. Forty-five additional specimens have been taken at the type locality, five miles north of Mazatlan and nine miles north of Mazatlan (J. A. and M. A. Chemsak, E. G. and J. M. Linsley and A. E. and M. M. Michelbacher) at flowers of *Buddleia wrightii* and *Jatropha curcas*. In all of these, the *Lycus*-like elytral pattern is remarkably constant.

### **Nemognathomimus**, new species

Body small, narrow, elongate; elytra not attenuated, sides at most very gradually narrowed from behind humeri to apical one-sixth, then gradually rounded to apices. Head moderately elongate, distance from anterior margin of antennal sockets to apex of clypeus a little shorter than width of face across genae (1.0:1.1); eyes emarginate; antennal tubercles adjacent to upper inner edge of lower lobe of eyes, insertions not embraced by eyes; antennae with segments one to five shining, black, coarsely punctate, clothed with coarse black bristles, segments six to eleven dull, dark brown, minutely punctate, clothed with short, fine pubescence, segments, three to five cylindrical, third segment longer than fifth, fifth longer than fourth, segments six to eleven thickened but not subserrate. Pronotum narrowly campanuliform, not quite as long as basal width, surface polished, very sparsely and finely punctate; prosternum with intercoxal process very narrow, laminiform, anterior coxae prominent, exerted, cavities closed behind; mesosternum depressed between coxae and arcuately but somewhat flatly declivous in front, intercoxal process at middle of coxae distinctly narrower than vertical diameter of base of middle femora. Legs slender; posterior tarsi filiform, longer than tibiae in the male, a little shorter than tibiae in the female, first segment longer than remainder of tarsus, third segment deeply incised, lobes elongate. Elytra with apices obliquely rotundate-truncate. Abdomen with last sternite emarginate at apex and feebly triangularly impressed with the lateral angles feebly produced in the male, the apex entire and rotundate-truncate in the female.

Type species.—*Choriolaus pallidulus* Linsley

This genus differs from the related genera discussed here in the elongate, slender form, the structure of the antennae, and the highly polished, scarcely punctate, sparsely pubescent pronotum.

### **Nemognathomimus pallidulus** (LINSLEY), New combination

*Choriolaus pallidulus* Linsley, 1935, Trans. American Ent. Soc., 61:82; Linsley and Chemsak, 1971, Arquivos de Zoologia, 21:18 (synonymy).

*Choriolaus pubicollis* Linsley, 1935, Trans. American Ent. Soc., 61:83.

This species occurs in at least four distinctive color forms (1) a typical *Nemognatha*-like coloration, being pale testaceous with the eyes, antennae, tibiae and tarsi black, (2) similar but with elytral apices narrowly black, (3) black, with the prothorax rufo-testaceous, a color-

femora are golden yellow), and the feebly dentate lateral apical angles of the elytra. From *C. celestae* (Chemsak and Linsley) and *C. gracilis* (Chemsak and Linsley), *C. derhami* may be distinguished by having only the pronotum and elytra reddish.

#### CHORIOLAUS GRACILIS (CHEMSAK AND LINSLEY)

*Megachoriolaus gracilis* Chemsak and Linsley, 1974, Pan-Pacific Ent., 50:39.

Since this species was described based upon three male specimens, five additional males and three females have been received from Dr. Paul A. Opler, collected at the type locality in late May and early June, 1973 and 1974, mostly at flowers of *Caesaria nitida*. The females are a little larger and more robust than the males, with the elytra less than twice as long as width behind humeri (nearly 2.2 times as long in males) and the last sternite broadly subtruncate (narrowly rounded in the male). The coloration in the entire series is remarkably constant.

#### GENUS MEGACHORIOLAUS LINSLEY

*Megachoriolaus* Linsley, 1970, Pan-Pacific Ent., 46:123; Linsley and Chemsak, 1971, Arquivos de Zoologia, 21:3; Chemsak and Linsley, 1974, Pan-Pacific Entomol., 50:35.

This genus is closely related to *Choriolaus* Bates, but differs in having the anterior coxal cavities open behind, the intercoxal process of the mesosternum prominent, not recessed, abruptly arcuate or subvertically declivous in front and at midpoint between coxae as wide as or wider than vertical diameter of base of middle leg, the posterior tarsi distinctly shorter than the tibiae, and the antennae with the outer segments distinctly thickened or subserrate with the basal segments usually abbreviated and clothed with coarse black setae. As redefined, the following species are included: *M. breviceps* (Linsley) (Arizona), *M. chemsaki* Linsley (Sinaloa to Oaxaca), *M. cruentus* (Martin) (Arizona), *M. flammatus* Linsley (Morelos), *M. ignitus* (Schaeffer) (Arizona), *M. imitatrix* Linsley (San Luis Potosi), *M. lineaticollis* Chemsak and Linsley (Panama), *M. patricia* (Bates) (Vera Cruz to Panama), *M. spiniferus* (Linsley) (Panama), *M. texanus* (Knull) (Texas), *M. unicolor* (Bates) (Guerrero), and *M. nigricollis* Chemsak and Linsley (Mexico).

#### MEGACHORIOLAUS CHEMSAKI LINSLEY

*Megachoriolaus chemsaki* Linsley, 1970, Pan-Pacific Ent., 46:129.

Since this species was described from near Mazatlan, Sinaloa; we have received specimens from 30 miles northeast of Tehuantepec,

ational type suggestive of *Nemognatha zonitoides* Dugès, and (4) black with the elytra metallic greenish, as in some forms of *N. caeruleipennis* Perty (see Champion, 1891-93).

Material studied by us represents these color phases as follows: MEXICO: Sinaloa: Mazatlan, 5 and 9 miles north, at flowers of *Buddleia wrightii* and *Jatropha curcas*, elytra yellow, 30, elytra black, 39, Elota, 8 mi. S., elytra black, 1; Nayarit: Arroyo Santiago, near Jesus Maria, elytra yellow, 3, elytra black, 1; 3 mi. northwest of Santa Maria del Oro, elytra yellow with apices black, 1; Mexico: Temescal-tepec, elytra yellow, 1, Bejucos, elytra black; Oaxaca: 30 miles northeast of Tehuantepec, elytra yellow, 3, elytra black, 4; Chiapas: 17 kilometers north of Tuxtla Gutiérrez, elytra yellow, 1; Yucatan: Chichen Itza, elytra yellow, 1. EL SALVADOR: Quezaltepeque, elytra metallic greenish, 1.

### **Mordellistenomimus**, new genus

Body small, oblong; elytra not attenuated, sides subparallel to apical one-third, then gradually rounded to apices. Head with muzzle short, broad; eyes emarginate; antennal tubercles adjacent to upper inner edge of lower lobe of eyes, insertions not embraced by eyes; antennae filiform, outer segments not swollen, second segment cylindrical, third segment longer than scape, fourth segment distinctly shorter than third, fifth segment longer than third and sixth. Pronotum broadly campanuliform, narrowed gradually from base to middle, then broadly rounded to apex; surface densely punctate, the punctures larger than those of vertex of head, smaller than those of elytra. Prosternum with intercoxal process narrow, lamini-form, coxae prominent, exserted, cavities closed behind. Elytra rugoso-punctate, not costate; apices separately rounded.

Type species.—*Choriolaus nanus* Bates

This genus may be distinguished from other genera in the *Choriolaus-Euryptera* group by the filiform antennae with the outer segments not enlarged or subserrate, the fifth segment longer than the third and the sixth, the pronotum broadly, rather than narrowly campanulate, and the elytral surface rugoso-punctate. The following is the only known species.

### **MORDELLISTENOMIMUS NANUS (BATES), NEW COMBINATION**

*Choriolaus nanus* Bates, 1885, *Biologia Centrali-Americana*, Coleoptera, 5:284, pl. 20, fig. 8 (♀); Linsley and Chemsak, 1971, *Arquivos de Zoologia*, 21:17 (♀). Type locality.—Mexico.

We have seen only the type specimen in the British Museum (Natural History), London. The head, except the eyes and antennae, the prothorax, and the femora, except the apices, are yellow; the elytra are

black; and the mesosternum, metasternum and abdomen brownish. The pubescence is golden on the yellow areas of the integument, otherwise black.

As remarked by Bates, this species resembles a mordelled beetle of the genus *Mordellistenus*. Among the Mexican species figured by Champion (1891-1893), it is suggestive of *M. atripennis* Champion or *M. rubricollis* Champion.

#### GENUS CHONTALIA BATES

*Chontalia* Bates, 1872, Trans. Ent. Soc. London, 1872: 233; Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:283; Linsley and Chemsak, 1971, Arquivos de Zoologia, 21:22.

*Chontalia* differs from the other genera of small Neotropical lepturines with the posterior basal angles of the pronotum extending over the elytral humeri by having the antennal insertions within the ocular emargination and partially embraced by the eyes, and the antennae with segments three, four and five becoming successively longer.

#### CHONTALIA CYANICOLOR BATES

*Chontalia cyanicolor* Bates, 1872, Trans. Ent. Soc. London, 1872: 233; Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:40, pl. 5, fig. 3; Linsley and Chemsak, 1971, Arquivos de Zoologia, 21:23.

We have seen only the type specimen of this species, a female in the collection of the British Museum (Natural History), London. The integument is black, with the head, prothorax and episterna cyaneus and the basal half of the elytra yellow. The type has been illustrated by Bates (loc. cit.).

#### **Lycidocerus**, new genus

Body small, elongate; elytra with sides straight, parallel-sided in male, gradually widened to apical one-sixth in female, then rounded to apices. Head moderately elongate, distance from a line connecting anterior margin of antennal insertions to apex of clypeus only slightly less than width of faces across genae; temples not prominent, narrowed behind eyes to neck, which is distinct; antennal insertions below ocular emargination, adjacent to upper inner edge of lower lobe of eye; antennae stout, segments broad, flattened, three to five densely clothed with coarse, suberect black setae in male, three to six in female, third segment shorter than scape, fifth shorter than third, longer than fourth, eleventh segment appendiculate. Pronotum distinctly shorter than basal width, narrowly campanuliform, sides feebly rounded at middle, basal angles extending over humeri, punctation on disk finer than that on base of elytra; prosternum with intercoxal process very narrow, laminiform, coxal cavities open behind; mesosternum with intercoxal process

deeply recessed, gradually arcuate in front, narrow between the coxae where at midpoint it is distinctly narrower than tarsal segments. Legs with posterior tarsi a little shorter than the tibiae in the male, distinctly so in the female. Abdomen with last sternite narrowly emarginate at apex in male, broadly truncate in female.

Type of genus.—*Lycidocerus sanguineus* new species.

This genus is apparently related to *Lychoriola* but differs from that genus and others in the *Choriola* group in the much more abbreviated basal segments of the antennal flagellum, with the third segment distinctly shorter than the scape.

### ***Lycidocerus sanguineus*, new species**

(Figure 1)

Male: body narrow, predominantly black; head, except apex of clypeus, labrum, ocular emargination, antennal tubercles, vertex, and mid-line on neck rufo-testaceous; pronotum, except for median longitudinal black line which continues on to neck, rufo-testaceous; elytra, except for sutural margin which is narrowly black over basal two-thirds in male, basal one-half in female, rufo-testaceous; anterior and intermediate coxae rufo-piceous, base of anterior and intermediate femora base of first segment of tarsus, apex of last segment and claws testaceous or rufo-testaceous; pubescence black in dark areas, golden in pale areas. Head with vertex and frons above antennal sockets, including ocular emargination finely punctate and more or less transversely rugose; lower frons dull, minutely, densely punctate; clypeus, labrum and genae shining, minutely, sparsely punctate; ventral surface shining, area adjacent to eyes rugulose; antennae reaching to apical one-fourth of elytra. Pronotum minutely densely punctate; prosternum shining, finely, very sparsely punctate and pubescent; metasternum finely punctured and pubescent, coarsely punctate at side and on episterna. Legs with femora moderately coarsely punctate, tibiae finely punctate, tarsi minutely punctate. Elytra with surface granulate, more coarsely punctate than pronotum, clothed with depressed golden pubescence which does not obscure the surface; apices rounded to outer angle which is feebly dentiform. Abdomen shining; sternites finely sparsely punctate, thinly clothed with depressed pale hairs; last sternite narrowly emarginate at apex. Length, 9.5 mm.

Female: form more robust; antennae not quite attaining apical one-third of elytra; elytra with narrow black sutural line extending from scutellum to nearly middle; abdomen broadly truncate at apex. Length, 9 mm.

Holotype male and allotype (Los Angeles Museum of Natural History).—five miles south of San Vito de Java, Puntarenas Province, Costa Rica (R. W. McDiarmid).

This species somewhat resembles a *Lychoriola* in general form, but in addition to the generic characters it differs from the described bicolored species in that genus in the dark red, rather than testaceous or golden, elytra.

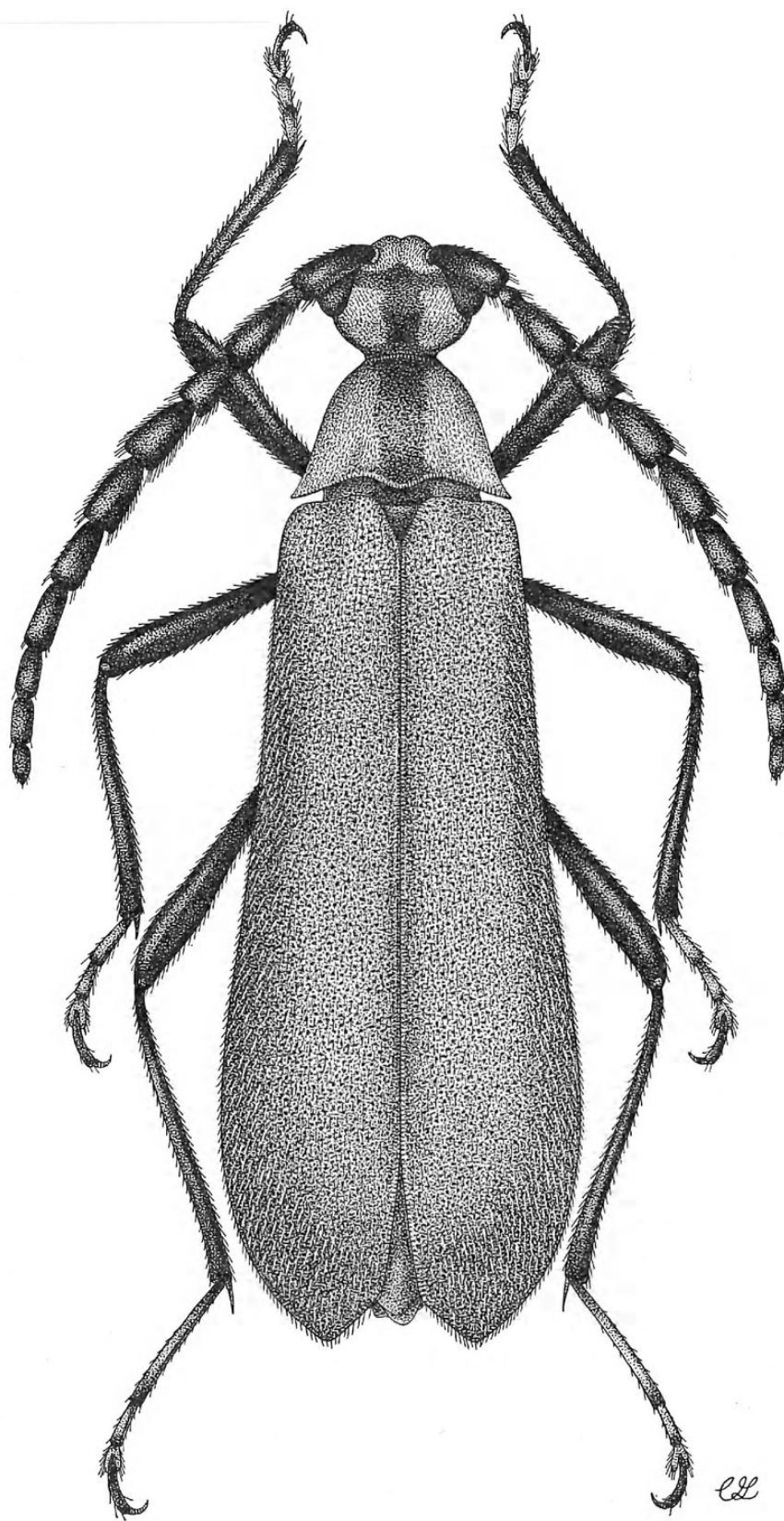


FIG. 1. *Lycidocerus sanguineus* Chemsak and Linsley, allotype ♀.

**Leptochoriolaus**, new genus

Body moderate-sized, elongate, opaque; elytra narrowed from behind humeri over basal one-third, expanded before narrowing then parallel-sided to apical one-sixth, then narrowed to apices; apices rounded internally, external angle feebly dentiform. Head elongate, distance from anterior margin of antennal sockets to apex of clypeus distinctly longer than width of face across genae; antennal tubercles adjacent to upper inner edge of lower lobe of eye but outside of ocular emargination, widest part of lower lobe not extending beneath them; clypeus somewhat prominent; antennae not filiform, outer segments thickened but not quite twice as wide as apex of third segment, basal segments with some coarse short, depressed bristles, third segment twice as long as fourth, one-third longer than fifth, outer segments with small apical poriferous areas. Pronotum campanuliform, shorter than basal width, apical constriction narrow, basal angles acute extending over elytral humeri. Prosternum with intercoxal process very narrow, laminiform; anterior coxae prominent, exerted; mesosternum with intercoxal process moderately narrow, recessed arcuately but somewhat flatly declivous in front. Legs slender, posterior tarsi filiform, distinctly shorter than tibiae, first segment longer than remainder of tarsus, third segment deeply incised, lobes elongate.

Type species.—*Leptochoriolaus opacus* new species

This genus differs from others in the *Euryptera-Choriolaus* complex in the very elongate elytra which are narrowed behind the humeri and then subparallel nearly to the apices and the opaque integument, and in the form and proportion of the antennal segments.

**Leptochoriolaus opacus**, new species

(Figure 2)

Female(?): Integument opaque, head and appendages black, neck, pronotum, prosternum and elytra at base rufo-testaceous, remainder of elytra, metasternum and abdomen brown. Head with vertex and upper frons between eyes concave, very finely, very densely punctate, with a median, longitudinal polished line; face and clypeus finely, very densely punctate, punctures of clypeus a little larger than those of lower face; antennal tubercles elevated; antennae extending over basal half of elytra, scape elongate, subcylindrical, distinctly longer than vertical diameter of eye, second segment about as long as broad, third segment narrow over basal one-half, subequal in length to scape, fourth segment one-half as long as third, subequal to sixth, fifth segment one-third shorter than third, one-third longer than fourth and sixth, segments six to ten gradually decreasing in length, eleventh a little longer than tenth, apex acute. Pronotum finely, very densely punctate, clothed with very short, golden pubescence which does not obscure surface, midline longitudinally impressed behind middle and in front of base; prosternum and metasternum finely, very densely punctate. Legs with femora finely punctate but somewhat shining. Elytra moderately coarsely punctate over a very densely, minutely punctate surface, clothed with short depressed golden pubescence which does not obscure surface. Abdomen very finely, densely

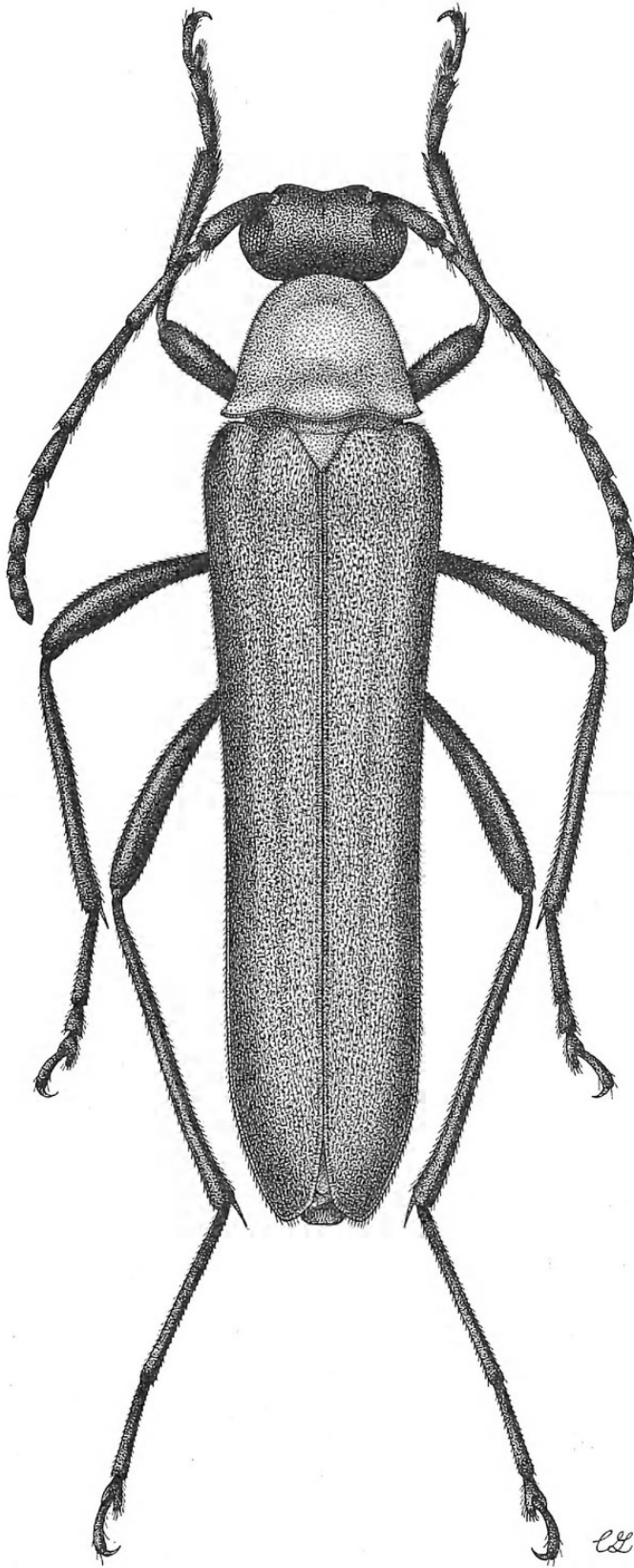


FIG. 2. *Leptochoriolaus opacus* Chemsak and Linsley, holotype ♀(?).

punctate, clothed with short depressed pale pubescence which does not obscure surface. Length, 10 mm.

Holotype female(?) (United States National Museum of Natural History).—Turrialba, Costa Rica (E. A. Böttcher) (Tippmann Coll. '57, 213112).

The aspect of this species is unlike that of any other described species of Central American lepturine.

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