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NEW SPECIES OF AMERICAN SCOLYTOID
BEETLES, MOSTLY NEOTROPICAL

BY M. W. BLACKMAN¹

IN THE following pages 1 new genus and 29 new species of bark-beetles are described, the genus and 3 species from the United States and 26 species from Neotropical countries. Of the latter, 12 species are from Central America, 4 species from the West Indies, 3 species each from Colombia, Bolivia, and Argentina, and 1 species from southern Brazil.

The species here treated do not belong to a single restricted group of the Scolytoidea but represent a number of genera in several more or less distantly related tribes or subfamilies. The groups concerned are Bothrosternini, Camptocerini, Hexacolini, Hylesinini, and Phloeotribini. All drawings for the plates were made by Arthur D. Cushman.

Genus CNESINUS LeConte

The genus *Cnesinus* was described by LeConte, 1868, to include his species *C. strigicollis* from Illinois. Since then about 20 species have been described from Central and South America. Apparently many additional species are still undescribed. In the present paper 8 new species are described.

CNESINUS CUBENSIS, new species

PLATE 15, FIGURES 1, 2

Dark reddish brown; 3.0 mm. long, 2.5 times as long as wide; allied to *strigicollis* LeConte but larger, elytra with setae stronger, and declivity strongly retuse.

¹ Dr. Blackman died on October 12, 1943, while this paper was in press.—EDITOR.

Frons (fig. 2) with eyes moderately separated above, surface piceous, convex and nearly impunctate above; below lighter in shade, concave, with definite, elevated side margins, punctures small, moderately spaced, bearing fine, short, yellow hairs directed dorsad, with a few similar hairs above, at each side near the eyes. Eye large, elongate oval, with inner line broadly, shallowly emarginate, facets rather coarse. Antenna with club fusiform, first two sutures septate.

Pronotum 1.03 times as long as wide, widest near middle, posterior outline bisinuate, posterior lateral angles scarcely rounded; sides nearly straight and very feebly diverging on posterior half, strongly, arcuately narrowed, very broadly rounded in front; surface subopaque, densely punctate-strigate, the strigae often broken up into granules, especially in front; with numerous short, recumbent, yellow-cinereous hairs directed mesad; median line punctured as is rest of pronotum, indicated only by direction of hairs.

Elytra wider than pronotum and 1.66 times as long, 1.55 times as long as wide; sides subparallel on more than anterior two-thirds, moderately rounded behind; surface shining but veiled by vestiture; striae narrow, impressed, striae punctures fine; interspaces wide, somewhat convex, rugulose, finely punctured, with a sparse median row of granules in each interspace, from each of which a stout, erect, brown bristle arises, with numerous, much finer, cinereous, recumbent hairs from finer interspaces. Declivity sloping, strongly sulcate, and retuse; suture and second interspace strongly impressed, forming a deep sulcus; all of interspaces granulate, third interspace forming the summit of the high lateral elevations, with three large toothlike tubercles; vestiture of two kinds as on disk, but both kinds longer and coarser.

Type locality.—Cayamas, Cuba.

Host.—Unknown.

Type material.—Holotype, U.S.N.M. No. 56548.

The holotype was collected by E. A. Schwarz, March 3.

CNESINUS PANAMENSIS, new species

PLATE 15, FIGURES 3, 4

Dark reddish brown; 2.24 mm. long, 2.6 times as long as wide; rather closely allied to *strigicollis* LeConte.

Frons (fig. 4) black, moderately shining, convex above between the moderately approximated eyes (more closely than in *strigicollis*), broadly impressed below, finely and closely punctured at sides, above, and on epistoma, more sparsely elsewhere; with rather stout, moderately long hairs on sides and epistoma and with a few finer hairs in impression. Eye large, elongate ovate, rather coarsely faceted, inner line broadly, shallowly emarginate.

Pronotum 1.13 times as long as wide, widest near middle; posterior outline bisinuate, posterior lateral margins scarcely rounded; sides nearly straight and subparallel on more than posterior half, very broadly rounded in front; surface moderately shining, finely, closely punctate-strigate, median line lacking; hairs stout at sides and near front, nearly lacking on disk.

Elytra wider than pronotum and 1.61 times as long, 1.65 times as long as wide; sides subparallel on anterior two-thirds, broadly rounded behind; surface shining; striae deep, moderately narrow, punctures small, indistinct; interspaces much wider than striae, reticulate, finely punctured, bearing rather numerous short, appressed hairs, with sparse uniseriate rows of small granules, with suberect bristle arising from base of each. Declivity sloping, broadly and shallowly sulcate in sutural area; interspaces narrower and more convex than on disk, uniseriately granulate, with erect bristles more numerous than on disk.

Type locality.—Panama.

Host.—Unknown.

Type material.—Holotype and one paratype, U.S.N.M. No. 56549. The type series was collected by E. A. Schwarz, March 12, 1911.

CNESINUS COGNATUS, new species

PLATE 15, FIGURE 6

Dark reddish brown; 2.2 mm. long, 2.48 times as long as wide; rather closely related to *strigicollis* LeConte, but notably smaller and differing in the character and arrangement of the vestiture.

Frons (fig. 6) piceous-brown, subopaque, convex above between the moderately approximated eyes, bordered below by a transverse carina, with portion ventral to it broadly transversely impressed; punctures fine and close below and at sides, with cinereous, moderately long, stout hairs, those from sides directed dorsomesad. Eye relatively smaller and more elongate oval than in *strigicollis*, facets notably finer, inner line very broadly and shallowly emarginate.

Pronotum 1.05 times as wide as long, widest at middle, posterior outline slightly bisinuate, posterior lateral angles rounded; sides nearly straight and feebly diverging on posterior half, very broadly rounded in front; surface moderately shining, finely, closely punctate-strigate, median line lacking; vestiture of stout, subsquamose hairs at base, sides, and apex, fine, short, and inconspicuous on disk.

Elytra slightly wider than pronotum and 1.75 times as long, 1.61 times as long as wide; sides subparallel on anterior two-thirds, moderately narrowly rounded behind (not so broadly rounded as in *strigicollis*); surface shining through the rather abundant vestiture; striae

deep, moderately narrow, punctures small, rather indistinct; interspaces wider than striae, flat on disk, finely granulate-punctate, with numerous appressed, cinereous hairs of moderate size, the middle row in each interspace slightly longer and more erect at sides and behind; declivity moderately steep, interspaces narrower and somewhat convex, with erect hairs uniseriate and more numerous than on disk.

Type locality.—El Petén, Guatemala.

Host.—Unknown.

Type material.—Holotype, U. S. N. M. No. 56550.

The holotype was collected on April 8, 1922, by H. F. Loomis.

CNESINUS ROBAI, new species

PLATE 15, FIGURE 5

Dark piceous-brown to black; 2.34 mm. long, 3.73 times as long as wide.

Frons (fig. 5) with eyes rather narrowly separated above, its interocular area convex, black, brightly polished, with only a few minute, obsolescent punctures except at sides near eyes, where small, close punctures bear fine, rather short hairs; strongly, transversely impressed below convexity, with a distinct, small callus at each side of median line; epistoma lighter in shade, with numerous reddish-yellow hairs directed dorsad. Eye large, wider than usual, broadly shallowly emarginate, facets coarse. Antenna with club elongate ovate, with sutures transverse, the first two septate.

Pronotum 1.04 times as long as wide, widest near middle; posterior outline bisinuate, posterior lateral angles rounded, sides arcuate and weakly divergent on slightly more than posterior half, then more strongly narrowed, broadly rounded in front; surface dark reddish brown, subshining, densely strigate, subasperate at sides in front; median line narrow, slightly elevated and distinct on posterior half; hairs fine, appressed behind, stouter anteriorly.

Elytra wider than pronotum and 1.91 times as long, 1.82 times as long as wide; sides nearly straight and subparallel on more than anterior half, then gradually arcuately narrowed, with apex moderately broadly rounded; surface subshining, striae narrow, impressed, with small, inconspicuous punctures; interspaces flat, rugulose, finely, irregularly granulate, with fine punctures and a few fine, short hairs irregularly arranged, the median row in each interspace longer and stouter near and on declivity.

Type locality.—Santander Department, Colombia.

Host.—*Coffea arabica*.

Type material.—Holotype and 2 paratypes, U. S. N. M. No. 56551.

The type series was collected at an altitude of 700 to 1,300 meters by R. P. Roba, in whose honor the species is named.

CNESINUS SIMILIS, new species

PLATE 15, FIGURES 7, 8

Male.—Dark piceous-brown; 1.94–2.37 mm. long, holotype 2.2 mm. long, 2.33 times as long as wide; similar to *porcatus* Blandford and *costulatus* Blandford but differing in the shape and in the vestiture of the elytra and especially in the frontal structures.

Frons (fig. 8) somewhat similar to that of *porcatus* but with the eyes closer together above, the transverse carina even more strongly elevated, the triangular area above more flattened and brilliantly shining, the ventral area moderately punctured, with fine, rather short hairs (much finer, shorter, and less abundant than in *porcatus*), the hairy area extending at sides to slightly above the eyes. Eye narrower above than below the shallow emargination, facets moderately coarse. Antenna reddish brown, 7-segmented funicle about as long as scape, its distal segments slightly widened, club 1.8 times as long as wide, first two sutures distinctly septate.

Pronotum 1.03 times as wide as long, posterior outline distinctly bisinuate, posterior lateral angles not rounded, sides nearly straight and subparallel on posterior half, then arcuately narrowed, very broadly rounded in front; surface strigose, with narrow, shining interstices, transversely impressed near front margin, vestiture fine, rather scanty.

Elytra wider than pronotum and 1.69 times as long, 1.48 times as long as wide (stouter and proportionally shorter than in *porcatus*); bases separately rounded, sides nearly straight and subparallel on more than anterior half, then gradually, arcuately narrowed to a slight constriction, moderately rounded at tip; striae rather wide and deep, punctures large on anterior third, small and inconspicuous behind; interspaces of nearly equal width, sulcate on disk and sides, outer wall of sulci higher and wider, with fine punctures and fine, short hairs (smaller and less conspicuous than in *porcatus*); declivity moderately sloping, first interspace obscurely sulcate, the others subcostate, not sulcate, hairs larger and more numerous than on disk but much less numerous and conspicuous than in *porcatus*.

The female is unknown.

Type locality.—Porto Bello, Panama.

Host.—Unknown.

Type material.—Holotype male and 3 male paratypes, U.S.N.M. No. 56552.

The type series was collected by E. A. Schwarz, February 28 and March 1, 1911.

CNESINUS FOVEATUS, new species

PLATE 15, FIGURES 9–11

Piceous-black, with elytra very dark brown; 2.06 mm. long, 2.25 times as long as wide.

Frons (fig. 10) dark brown, feebly shining, convex above, finely, obscurely punctured, with a few fine, short, inconspicuous hairs; median line with a strong carina extending orad to level of eye emarginations; epistoma transversely impressed; with a small, circular callus at each side, below end of carina. Eyes not approximate above, narrowly ovate, inner line shallowly emarginate, facets moderately coarse. Antennal club fusiform, first 2 sutures nearly completely septate.

Pronotum 1.03 times as long as wide, posterior outline weakly bisinuate, posterior lateral angles slightly rounded; sides nearly straight and feebly diverging on posterior half, then arcuately narrowed, feebly constricted, broadly rounded in front; surface moderately shining, impressed just behind anterior margin, finely, shallowly, moderately closely punctate, substrigate; median line very narrow, feebly elevated. Propleura with a rather large fovea (fig. 11) at each side, lined with hairs, above and anterad of fore coxae, as in *Phloeoborus*, etc.

Elytra wider than pronotum and 1.45 times as long, 1.31 times as long as wide, very slightly widest behind middle; bases separately arcuate, humeral callus very small; sides nearly straight on less than anterior three-fourths, very feebly diverging, then strongly narrowed, with apex rather narrowly rounded; surface subopaque; striae moderately impressed, striaal punctures obscure, less so at sides; interspaces wide, flat, finely reticulate, minutely punctate, otherwise unmarked on disk; declivity moderately steep, its face somewhat flattened; interspaces narrower than on disk, weakly convex, with numerous small, irregularly arranged granules; disk and sides glabrous, declivity with numerous erect, yellow hairs, becoming uniseriate in each interspace near apex.

Type locality.—Trece Aguas, Guatemala.

Host.—Unknown.

Type material.—Holotype, U. S. N. M. No. 56553.

The holotype was collected by Schwarz and Barber at an altitude of about 900 feet.

CNESINUS SUBSTRIGATUS, new species

Female.—Piceous-black; 2.43 mm. long, 2.93 times as long as wide; allied to *gracilis* Blandford.

Frons convex above, piceous, subopaque, reticulate, with fine punctures; epistoma impressed, interocular area flattened, both finely, rather closely punctured, with short, stout, erect, yellowish hairs nearly concealing surface. Eye rather large, not approximate above, inner line weakly emarginate, facets moderately coarse. Antenna of usual type for genus; club rather pointed ovate, sutures transverse,

the first two each nearly two-thirds septate; segments of funicle considerably wider distally.

Pronotum 1.07 times as long as wide, slightly widest near middle; posterior outline nearly straight, posterior lateral angles rounded, sides nearly straight, very feebly diverging to middle, then arcuately narrowed, very broadly rounded in front; surface feebly shining throughout, feebly, transversely impressed back of anterior margin; with moderately close, rather fine, elongate punctures, not confluent and not strigate; median line extending from base to apex, narrow, feebly elevated; vestiture lacking.

Elytra wider than pronotum and 1.83 times as long, 1.83 times as long as wide; bases rather weakly arcuate; humeral callus evident; sides nearly straight and subparallel for about three-fourths of their length, then narrowed, moderately rounded behind; surface shining; striae narrow, impressed, the first more strongly; striae small, separated by their own diameter; interspaces weakly convex, rugulose, with fine punctures, not uniseriate, hairs few in number and very minute on disk and sides; declivity sloping; striae more deeply impressed than on disk; interspaces narrower, rather strongly convex, finely granulate, each with uniseriate row of erect, yellowish bristles.

The male is unknown.

Type locality.—Santander, Colombia.

Host.—Branches of *Coffea arabica*.

Type material.—Holotype and 2 paratypes, U. S. N. M. No. 56554.

The type series was taken from dry branches of *Coffea arabica*, Santander, Colombia, at an elevation of 700–1,300 meters, by R. P. Roba.

CNESINUS NITIDUS, new species

PLATE 15, FIGURES 12, 13

Male.—Piceous to black, with elytra dark reddish brown; 1.66 mm. to 1.88 mm. long, holotype 1.80 mm. long, 2.33 times as long as wide; pronotum shining, not strigate but with longitudinal punctures.

Frons (fig. 13) strongly convex above, transversely impressed, subconcave below; surface shining, finely, not closely punctured, with rather coarse, semierect hairs from epistoma and at sides above, directed dorsad; epistomal margin with finer hairs, directed orad. Eye long oval, inner line with shallow emargination at some distance above insertion of antennae; facets moderately coarse.

Pronotum nearly exactly as long as wide, posterior outline weakly bisinuate, posterior lateral angles rectangular, sides nearly straight and feebly diverging on posterior half, then arcuately narrowed, feebly constricted, broadly rounded in front; surface brightly shining,

with rather small, elongate punctures, not truly strigate; median line impunctate from base to apex, not elevated; subglabrous.

Elytra wider than pronotum and 1.70 times as long, 1.44 times as long as wide, widest behind middle; bases separately, feebly arcuate; sides nearly straight and feebly divergent on anterior two-thirds, then narrowed, very broadly rounded behind; surface shining; striae impressed, punctures large and conspicuous anteriorly, becoming inconspicuous behind; interspaces wider than striae, slightly convex anteriorly, more strongly convex near declivity, rugulose, with small punctures, becoming finely granulate behind; declivity moderately steep, somewhat flattened in sutural region; anterior half subglabrous, posterior half, including declivity, with conspicuous, yellow-cinereous, erect bristles.

Female.—Very similar to male in most respects; frons similar to male, but with epistomal region much more finely and densely punctured; vestiture similarly disposed but much finer and less conspicuous.

Type locality.—Tampico, Mexico.

Additional localities.—Livingston, Guatemala; Trece Aguas, Guatemala (elevation 900 feet), and Porto Bello, Panama.

Host.—Unknown.

Type material.—Holotype, allotype, and 12 paratypes, U.S.N.M. No. 56555.

The holotype, allotype, and 2 paratypes were taken at Tampico, Mexico, by E. A. Schwarz; 9 paratypes were collected by Barber and Schwarz at Livingston and Trece Aguas, Guatemala; 1 paratype was taken by A. Busck at Porto Bello, Panama.

Genus CAMPTOCERUS Latreille

CAMPTOCERUS BOLIVIAE, new species

PLATE 16, FIGURES 18, 19

Female.—Black, moderately shining; 3.50 mm. long, 2.45 times as long as wide; last two abdominal segments visible beyond end of elytra.

Frons (fig. 19) convex, opaque above eyes; frontal rectangle 1.08 times as wide as long; strongly concave from upper level of eyes to epistoma, surface reticulate, with moderately close, deep punctures bearing fine, rather short hairs; surface with an arcuate elevation on lower frons and epistoma, epistomal lobe short and wide. Eye wider above, the lower end subangulate, facets moderately fine. Antenna with club irregularly ovate, attached to funicle at side of base, with little evidence of suture, except for a faint partial septum.

Pronotum 1.07 times as wide as long, posterior outline weakly bisinuate, with strong beaded margin, posterior lateral angles weakly

rounded; sides with sharply elevated, beaded margin; lateral outline strongly arcuate, considerably narrowed in front of middle, very broadly rounded in front; surface feebly shining, reticula elongated, punctures deep, rather fine, moderately close; glabrous.

Elytra scarcely wider than pronotum and 1.24 times as long, 1.14 times as long as wide; bases nearly straight, sides subparallel on anterior two-fifths, then semicircularly rounded, leaving the last two tergites exposed; surface moderately shining, strongly sculptured; dorsal contour arcuate from base to apex; striae strongly impressed, punctures moderately small, separated by their own diameters on anterior half, very fine and indistinct behind; interspaces wider than striae anteriorly, narrower than striae posteriorly, convex, granulate, distinctly punctured anteriorly, punctures less distinct posteriorly; vestiture entirely lacking, except at extreme sides.

Type locality.—San Borja, Beni, Bolivia.

Host.—Unknown.

Type material.—Holotype and 1 paratype, U. S. N. M. No. 56557.

The type series was collected in August 1925 by G. L. Harrington.

CAMPTOCERUS QUADRIDENS, new species

PLATE 16, FIGURES 14-17

Male.—Dark reddish brown; 3.6 mm. long, 1.96 times as long as wide.

Frons (fig. 15) concave from eye to eye, with frontal rectangle 1.13 times as long as wide; surface subshining, finely, rather closely punctured, with moderate, yellow hairs directed dorsomesad; epistoma separated above by a low, short, transverse carina in median third between bases of antennae, surface shining, median third apparently devoid of punctures, sides finely, closely punctate, with fine hairs, epistomal margin transverse, with short, downwardly directed hairs. Antenna (fig. 16) with scape longer than club or funicle, flattened, club-shaped, with rather long hairs, funicle 7-segmented, segments progressively widened distally, with joints 2-7 bearing long, stout hairs the end of many of which extend beyond the rather small club, which has indistinct sutures, only the first one having a partial septum.

Pronotum 1.18 times as wide as long, posterior outline bisinuate, with a strong, beaded margin, posterior lateral angles scarcely rounded; sides with a sharply elevated, beaded margin, lateral outlines nearly straight and subparallel on more than posterior half, then abruptly narrowed, broadly rounded in front; surface moderately shining, faintly reticulate, with fine, moderately spaced punctures, closer in front; vestiture apparently lacking on disk, with a few moderate hairs on anterior fourth.

Elytra equal in width to pronotum, and 1.26 times as long, 1.08 times as long as wide; bases bisinuate, sides nearly straight and subparallel on anterior half, then gradually, arcuately narrowed, moderately rounded behind; disk short, comprising only about two-fifths of the total length of elytra, surface brightly shining; stria punctures small, in fairly regular rows, striae not impressed; interspaces flat, with a few very minute punctures, apparently glabrous, the first and second interspaces each ending in a tooth extending caudad over the excavated anterior portion of the declivity, that from the first interspace being longer and sharper. Declivity originating in the recess formed by the overhanging posterior edge of the discal portion, sloping, arcuate; stria punctures in imperfect rows; interspaces rugulose, each with a median row of granules, from which arise yellow hairs, long and slender near summit, stouter and spatulate toward apex; posterior lateral border with a rather fine beaded margin.

Type locality.—Panama Canal Zone.

Host.—Unknown.

Type material.—Holotype, U. S. N. M. No. 56556.

The holotype was collected "from felled tree," August 19, 1923, by J. Zetek.

Genus CERATOLEPIS Chapuis

CERATOLEPIS NUBILUS, new species

Male.—Reddish brown, infumated with piceous; 2.14 mm. long, 2.34 times as long as wide; allied to *C. errans* Blandford.

Frons distinctly concave; surface finely, closely punctured, with numerous short, rather stout, light-cinereous hairs, evenly distributed over concavity; epistomal margin strongly incurvate. Eye slightly wider above, lower end not angulate, inner line entire, facets rather large. Antenna similar to that of *errans*.

Pronotum almost exactly as long as wide, posterior outline nearly straight, with distinct, beaded margin, posterior lateral angles rounded; sides arcuate from base to apex, with beaded margin extending four-fifths of distance from base, anterior margin moderately broadly rounded; surface weakly shining, punctures deep, rather close, closer at sides and in front; subglabrous, median line narrowly impunctate behind, not elevated.

Elytra very slightly wider than pronotum and 1.43 times as long, 1.34 times as long as wide; bases weakly arcuate, sides straight and subparallel on anterior two-thirds, moderately narrowly rounded behind; surface moderately shining, strongly sculptured; striae impressed, punctures close and large near base, smaller behind; interspaces much wider than striae, convex, strongly rugose, with uniseriate punctures nearly as large as those of striae on anterior half,

smaller and obscurely granulate behind, without hairs or with a very few minute ones on anterior disk; declivity originating at about middle, gradually, arcuately sloping, interspaces with rounded granules and with short, stout, cinereous hairs.

Type locality.—St. Croix, Virgin Islands.

Host.—Unknown.

Type material.—Holotype, U. S. N. M. No. 56558.

The holotype was collected by H. A. Beatty.

Genus HEXACOLUS Eichhoff

HEXACOLUS SWIETENIAE, new species

PLATE 16, FIGURES 20-24

Male.—Very dark reddish brown, with basal two-thirds of pronotum and a stripe on each elytron lighter reddish brown; 1.93 mm. long, 2.11 times as long as wide; intermediate in size between *Hexacolus cecropii* Schedl and *H. blandfordi* Schedl.

Frons (fig. 23) subimpressed, shining, reticulate, with few very fine punctures and small hairs, surface usually almost entirely hidden by a dense veil of long yellow hairs extending orad from vertex, epistoma impressed at each side, elevated in median line, with moderately long hairs from oral margin. Eye large, elongate, ovate, facets rather fine, inner line feebly sinuate. Antenna (fig. 21) with scape club-shaped, 2.66 times as long as the 6-segmented funicle and slightly longer than the obovate club, which has a half septum on first suture.

Pronotum nearly as long as wide, widest at middle; posterior outline bisinuate, margined toward sides, posterior lateral angles strongly rounded; sides strongly margined for three-fourths of their length, arcuate, weakly behind, strongly anteriorly, very broadly rounded in front; surface shining, very dark reddish brown in front, much lighter behind with darker shade extending farther back in median area; surface with rather strong, low, transverse asperities anteriorly, which become lower and finer on posterior half, where they are reduced to a slightly elevated anterior rim to each fine puncture; interstices finely, distinctly reticulate; vestiture minute and scanty, to be seen only in certain lighting.

Elytra slightly wider than pronotum and 1.36 times as long, 1.21 times as long as wide; bases sinuate, distinctly margined, sides weakly arcuate on anterior two-thirds, then more strongly, arcuately narrowed to the moderately narrow apex, extreme apex emarginate at suture, exposing last abdominal tergum; surface brightly shining, convex, much more strongly behind, appearing glabrous but with minute hairs on interspaces; color dark reddish brown in median area and on extreme sides, with an undefined light-reddish-brown area on disk

at each side; striae finely, closely punctured, the first strongly impressed, second and third weakly impressed, lateral striae not at all impressed, interspaces smooth, scarcely rugulose near base, with a few fine, uniseriate punctures; declivity gradually sloping, suture elevated, first striae impressed as on disk. Last tergum pale yellow, with short, fine hairs.

Female.—Slightly smaller (1.85 mm. long) and slightly slenderer; frons (fig. 24) convex above, transversely impressed between bases of antennae, median line indefinitely elevated, surface subopaque, finely, distinctly reticulate, with sparse, fine, indistinct punctures bearing short, fine, inconspicuous hairs.

Type locality.—Costa Rica.

Host.—Mahogany (hybrid?)

Type material.—Holotype, allotype, and 5 paratypes, U.S.N.M. No. 56559.

The type series was intercepted at the New York Quarantine Station in logs of hybrid (?) mahogany, May 18, 1941.

Two specimens taken from cedar logs from Costa Rica at the same quarantine station are similar in size, proportions, and sculpture, but are nearly uniformly light reddish brown. They are believed to be specimens of the same species that have not yet attained their full coloration.

HEXACOLUS LEVIS, new species

PLATE 16, FIGURE 25

Female.—Dark reddish brown, unicolorous; 2.2 mm. long, 2.33 times as long as wide.

Frons weakly convex above, subopaque, reticulate, with very sparse punctures; impressed between bases of antennae, with a few larger punctures; epistoma shining; hairs very fine, short, and scanty. Eye of moderate size, facets rather small, inner line entire. Antenna notably shorter than in *Hexacolus swieteniae*, new species; scape club-shaped but slenderer, 2.36 times as long as funicle and about twice as long as club, which is nearly as wide as long, without sign of a septum.

Pronotum as long as wide, widest near base, posterior outline very feebly sinuate, feebly margined only near the slightly rounded posterior lateral angles, sides sharply margined from base to middle, weakly arcuately convergent to beyond middle, broadly rounded in front; surface subshining, glabrous, finely, distinctly reticulate, with very fine punctures, sparsely arranged, no granules or asperities present.

Elytra distinctly wider than pronotum and 1.79 times as long, 1.57 times as long as wide; widest near base; base weakly sinuate, margined toward sides; sides nearly straight and subparallel on anterior two-thirds, narrowly rounded behind, extreme tip emarginate at suture,

exposing last tergite; surface shining, finely rugulose, reticulate, striae punctures small, shallow, in definite rows, but striae except first two not impressed; interspaces flat, very finely punctured, with no hairs visible; declivity moderately sloping, unmodified.

The male is unknown.

Type locality.—Paraiso, Panama Canal Zone.

Host.—Unknown.

Type material.—Holotype and 3 paratypes, U.S.N.M. No. 56560.

The type series was collected by E. A. Schwarz, January 26, 1911.

Genus PRIONOSCELES Blandford

PRIONOSCELES INGAE, new species

Female.—Black, shining, with abundant cinereous hairs on elytra; 1.97 mm. long, 1.99 times as long as wide.

Frons convex above, surface feebly shining, reticulate, strongly punctured, with median line indefinitely elevated; below subsemicircularly flattened, with somewhat smaller, less distinct punctures and no sign of a median elevation; epistoma somewhat elevated, with conspicuous tuft of hairs from epistomal margin; frontal hairs sparse and inconspicuous. Eye narrow ovate, inner line entire, facets small. Antenna yellowish red with club infumated with darker coloration; scape club-shaped, funicle shorter than scape, 6-segmented, with distal segments much wider; club oval, with one nearly complete septum.

Pronotum exactly as long as wide, posterior outline bisinuate, distinctly margined throughout, with margin continuing at sides well past middle, posterior lateral angles rounded, sides subparallel and nearly straight (very feebly arcuate) to well past middle, very broadly rounded in front; surface shining; anterior third with low, subconcentric asperities, with a few short, fine hairs; posterior portion subglabrous, finely, moderately sparsely punctured, with interstices reticulate, median line impunctate on basal third.

Elytra notably wider than pronotum and 1.31 times as long, 1.18 times as long as wide; bases slightly sinuate, margined; sides nearly straight and subparallel on anterior two-thirds, very broadly rounded behind; dorsal contour arcuate from base, much more strongly behind middle; surface shining, piceous-black; striae weakly, first and second more strongly impressed, punctures very close, of moderate size; interspaces wide, nearly flat, strongly uniseriately punctured, the punctures being similar in size to those of striae but not so closely placed, surface more roughened and subgranulate behind middle; declivity strongly convex; vestiture of erect, yellow-cinereous bristlelike hairs, moderately abundant throughout but especially so on declivity.

Male.—Similar to female in general habitus, with frons concave,

shining, finely, closely punctured, with conspicuous fine hairs of moderate length.

Type locality.—La Esperanza, Colombia.

Host.—*Inga*.

Type material.—Holotype and 2 paratypes, U.S.N.M. No. 56561.

The short type series was collected September 8, 1935, from *Inga*, by R. P. Roba.

PRIONOSCELES SPADIX, new species

Light reddish brown; 1.97 mm. long, 2.22 times as long as wide; allied to *Prionosceles atratus* Blandford and *P. maurus* Blandford.

Frons strongly convex above, transversely impressed between antennae; surface shining, moderately punctured, with a few small, inconspicuous hairs; epistomal margin thickened, with conspicuous, yellow hairs in median third. Eye elongate, narrow, facets rather small, inner line entire.

Pronotum as wide as long, slightly widest at middle; posterior outline bisinuate, finely margined toward sides, posterior angles strongly rounded; sides finely margined on posterior three-fifths, very feebly arcuate, very broadly rounded in front; surface moderately shining, glabrous, punctate-asperate throughout, much more strongly in anterior third; median line not elevated, punctured.

Elytra very slightly wider than pronotum and 1.23 times as long, 1.19 times as long as wide; bases sinuate, distinctly margined; sides nearly straight and subparallel on anterior five-eighths, then broadly arcuate; surface shining, spadiceous; dorsal contour convex throughout, more strongly on posterior half; striae impressed, the first very strongly impressed, punctures close and moderate in size; interspaces somewhat convex, first interspace narrow on basal fifth and apical two-fifths, other interspaces wide on disk and side, somewhat narrowed on declivity, discal interspaces with fine punctures, becoming uniseriate behind, uniseriately granulate on declivity; anterior half subglabrous, posterior half with fine, short, erect hairs.

Type locality.—Guatemala.

Host.—Mahogany (hybrid?).

Type material.—Holotype, U.S.N.M. No. 56562.

The holotype was taken May 26, 1941, from hybrid (?) mahogany intercepted at quarantine, New York (89860), from Guatemala.

Genus PHLOEOTRIBUS Latreille

The complex of species of the tribe Phloeotribini characterized by having the joints of the antennal club varying from loosely articulated to flabellate have been separated into several genera. The ones we are concerned with at present are *Phloeotribus* Latreille, *Phleoph-*

thorus Wollaston, and *Phthorophloeus* Rey. These, as characterized, seem sufficiently different to be considered as distinct genera, and when the genotypes are compared the same is true. However, when the group as a whole is studied, it is found that there are no sharp lines of demarcation between the species groups. Many species cannot be definitely placed in any of the three categories but possess certain characters of one group and certain other characters of other groups. It would seem that the tribe is still undergoing active evolution and that the species groups present such an unusual intergradation of characters that it seems wise to treat them as a single genus under the oldest generic name, *Phloeotribus*.

Of the five new South American species described in the following pages the first two (*Phloeotribus manni* and *P. argentinae*) belong unmistakably to *Phloeotribus* s. str. Of the other three, *P. boliviae* and *P. harringtoni* cannot be placed definitely in either *Phloeotribus* s. str. or *Phthorophloeus* Rey, as they have some characters of each group. *P. jujuya* agrees with *Phthorophloeus* in some respects and with *Phloeophthorus* Wollaston in others.

PHLOEOTRIBUS MANNI, new species

PLATE 17, FIGURES 26, 27

Female.—Pronotum piceous-black, opaque; elytra reddish brown, opaque; 3.11 mm. long, 1.53 times as long as wide.

Frontal rectangle 1.09 times as long (including epistomal lobe) as wide; frons (fig. 27) convex above, impressed between eyes above the usual transverse, arcuate impression between bases of antennae, transversely impressed on epistoma; surface piceous-brown, closely, rather coarsely punctate, with fine, short, appressed hairs; epistomal margin thickened and liplike, with a large epistomal lobe twice as wide as long, reddish yellow in color with its distal end shallowly emarginate, arising from its posterior distal surface. Eye slightly less than three times as long as wide, wider above middle, with lower half tapering to a very sharp angle. Antennal scape bright reddish brown, slightly longer than club, which is darker and subopaque.

Pronotum 1.19 times as wide as long, widest at base, posterior outline extended in median area, posterior angles scarcely rounded, sides and front margin together nearly evenly semicircular; surface opaque, rather coarsely, densely, moderately shallowly punctured, posterior median area scarcely granulate, anterior area scabrous, sides with broad, low asperities larger and higher at anterior angles; vestiture of fine, short hairs, with a few larger, stouter hairs intermixed at sides and in front.

Elytra wider than pronotum and 1.40 times as long, very broad, 1.03 times as long as wide; anterior margins arcuate, strongly crenu-

late; sides subparallel on about anterior half, very broadly rounded behind; surface opaque; striae narrow, strongly impressed, punctures small, shallow, closely placed; interspaces several times as wide as striae, flat anteriorly, convex on declivity, becoming narrower posteriorly, rugose, with irregularly arranged, lunate asperities anteriorly, becoming uniseriate behind; vestiture of small, short hairs on sides and declivity.

The male is unknown.

Type locality.—Rio Madeira, Brazil.

Additional locality.—Río Beni, Bolivia.

Host.—Unknown.

Type material.—Holotype and 1 paratype, U. S. N. M. No. 56563.

The type was collected by W. M. Mann in 1933 at Rio Madeira, Brazil; paratype by W. M. Mann, Río Beni, Bolivia.

PHLOEOTRIBUS ARGENTINAE, new species

PLATE 17, FIGURES 28-30

Female.—Piceous-black, with anterior margin of pronotum, antennae, and parts of the legs reddish brown; 2.63 mm. long, 1.69 times as long as wide.

Frons (fig. 30) convex above, frontal rectangle 0.92 as long as wide, transversely impressed just above epistomal margin and also between the eyes, with impressions separated by a transverse, slightly arcuate elevation between the bases of antennae, surface subopaque, reticulate, with rather small, shallow punctures; epistomal margin thickened, liplike, extended in median line. Antenna reddish brown, arising from frons one-third of distance between eye and median line; scape long, slender, with a few short hairs; club nearly as long as scape, with rather long, slender lamellae. Eye elliptical, 3.3 times as long as wide, inner margin entire, facets moderate.

Pronotum 1.26 times as wide as long, widest near base, posterior outline strongly bisinuate, posterior angles rounded, sides and front margin evenly subsemicircularly rounded, anterior margin serrate at each side, with median serrations obsolescent; surface opaque, rugose-asperate in front and at sides, median third of posterior disk subgranulate, with large but very shallow, very indistinct, obsolescent punctures; hairs scanty and very inconspicuous, more numerous at sides.

Elytra wider than pronotum and 1.62 times as long, 1.18 times as long as wide; anterior margins arcuate, elevated and crenulate; sides nearly straight and feebly converging on anterior two-thirds, moderately rounded behind; surface convex from base to apex, moderately shining, piceous except near anterior margin; striae deeply impressed, punctures small, indistinct; interspaces two or more times as wide

as striae, nearly flat, lunately asperate anteriorly, becoming uniseriately granulate behind; vestiture on anterior half scanty, sparse and fine, with coarser, longer, yellow setae on posterior half and on sides, becoming more conspicuous on declivity.

Male.—Similar to female in general habitus; frons (fig. 29) concavely impressed, below with a well developed, erect epistomal process arising just above the epistomal margin and having the free end squarely truncate, the sides feebly converging; antennal scape with dense fringe of long yellowish hairs; pronotum with anterior margin equally serrate at center and sides; elytral setae more conspicuous.

Type locality.—El Quemado, Argentina.

Additional locality.—Salta, Argentina.

Host.—Unknown.

Type material.—Holotype, allotype, and 41 paratypes, U. S. N. M. No. 56564.

The type series was collected by G. L. Harrington in 1927–28 in northern Argentina, in the provinces of Jujuy and Salta.

PHLOEOTRIBUS BOLIVIAE, new species

PLATE 17, FIGURES 31, 32

Female.—Head piceous, pronotum very dark reddish brown, elytra reddish brown; 2.17 mm. long, 1.92 times as long as wide.

Frons (fig. 32) convex above, frontal rectangle 0.94 as long as wide, transversely elevated between bases of antennae, surface subshining, reticulate, sparsely, shallowly punctate, with a short, fine, median sulcus just above transverse elevation; below transversely rather broadly impressed on epistoma, with punctures rougher, coarser, and deeper than above; epistomal margin thickened, liplike; piceous above, reddish brown in epistomal impression. Antenna arising from side of frons one-third of distance between eye and median lines, scape and funicle reddish brown, club piceous, about as long as scape. Eye elongate elliptical, not emarginate, facets moderate.

Pronotum 1.25 times as wide as long, widest near base, posterior outline extended in median area, posterior angles rounded, sides strongly arcuate, slightly constricted behind the very broadly rounded front margin, which is without serrations in median area but with small serrations at each side; surface shining, rugose-asperate in front and at sides, with sparse, semierect hairs, rugose-granulate and shallowly punctate in posterior median portion with fine, short hairs.

Elytra wider than pronotum and 1.80 times as long, 1.31 times as long as wide; anterior margins arcuate, elevated and crenulate, sides nearly straight and feebly diverging, moderately rounded behind,

with small serrations; surface shining; striae deep, with rather close, shallow punctures of moderate size; interspaces slightly wider than striae, rugose-asperate, asperities becoming uniseriate posteriorly, hairs stout, erect; declivity with striae and interspaces subequal in width, with hairs as on disk and sides; posterior rim margined and serrate.

Male.—Similar to female in habitus; frons concave below, with epistomal margin narrowly elevated, surface partly concealed by moderate, yellow hairs, transverse elevation between bases of antennae divided in median line by a longitudinal sulcus extending dorsad into a secondary concavity, with moderately long and coarse yellow setae arising from each side and directed toward median line; above secondary concavity with a rather low, hill-like elevation; frontal rectangle 1.14 times as long as wide; antenna arising from nearly half-way between eye and median line; scape with dense brush of long yellow hairs.

Type locality.—Mapiri, Bolivia.

Host.—Unknown.

Type material.—Holotype, allotype, and 1 paratype, U. S. N. M. No. 56565.

The type series was taken by G. L. Harrington in September 1925 at Mapiri, Department of La Paz, Bolivia.

PHLOEOTRIBUS HARRINGTONI, new species

PLATE 17, FIGURES 33, 34

Female.—Piceous-brown, with antennae and legs lighter; 2.31 mm. long, 2.33 times as long as wide.

Frontal rectangle 0.83 as long as wide, including epistomal lobe, which is longer than wide; frons (fig. 34) convex above, transversely impressed on epistoma, elevated between bases of antennae, indefinitely impressed above; surface piceous-brown, subshining, moderately punctured, with moderately short, semierect, cinereous hairs. Eye more than three times as long as wide, with outline fusiform. Antenna inserted at side very near eye; scape and funicle light reddish brown, club darker, with segments more than three times as wide as long.

Pronotum 1.17 times as wide as long, widest near base, posterior outline bisinuate, scarcely extended in median area, posterior angles rounded, sides convergently arcuate to the constriction just behind the broadly rounded anterior margin, which is devoid of serrations; surface moderately shining; median area with close, rather shallow, moderately large punctures, with a few small granules only on anterior third, sides with low, broad asperities distributed from behind the front margin nearly to base; vestiture of rather stout, moderate-

ly long, semierect, yellow setae, at sides directed caudad, setae finer and directed mesad on disk.

Elytra wider than pronotum and 1.82 times as long, 1.31 times as long as wide; anterior margins arcuate, crenulate, with a secondary row of lunate asperities behind and parallel to it, and a few additional, scattered asperities behind this; sides straight and subparallel on anterior two-thirds, rather narrowly rounded behind, with posterior margins serrate; surface somewhat shining; striae wide and deep, with coarse, close punctures; interspaces usually narrower than striae, rugose, with low, wide, lunate, approximately uniseriate asperities; vestiture of rather stout, suberect setae, approximately uniseriate on disk and sides except in sutural interspaces. Declivity arched, arising from well behind middle; striae deeper than on disk and similarly punctured; interspaces narrower, strongly convex, some of asperities reduced to granules, others elevated to form sharp, conical teeth on interspaces 3, 5, 7, and 9; setae larger and more numerous than on disk.

Male.—Similar to female, but with frons concave from above level of eyes to epistomal margin, interantennal elevation incomplete in median third; antenna similar to that of female but with longer, more numerous hairs on scape.

Type locality.—Aguaray and Tartegal, Argentina.

Host.—Unknown.

Type material.—Holotype, allotype, and 8 paratypes, U.S.N.M. No. 56566.

The type series was collected by G. L. Harrington on October 19–21, 1920.

PHLOEOTRIBUS JUJUYA, new species

PLATE 17, FIGURES 35, 36

Female.—Reddish brown, with head piceous-brown; 2.53 mm. long, 2.16 times as long as wide.

Frontal rectangle 0.71 as long as wide, including epistomal lobe, which is longer than wide; frons (fig. 36) convex above, reddish, closely, moderately coarsely punctured; transversely impressed below; elevated between antennal bases, transversely flattened above, median line with a carinal elevation which in turn has a median sulcus; vestiture short, fine, and sparse. Eye elongate elliptical. Antenna inserted at side near eye; scape and funicle light reddish brown, club darker, with segments less than twice as wide as long.

Pronotum 1.17 times as wide as long, widest at base, posterior outline scarcely sinuate, not at all extended posteriorly, posterior angle scarcely rounded; sides convergently arcuate, with little evidence of anterior constriction, anterior margin very broadly rounded, subsinuate in me-

dian area, margin without serrations; surface moderately shining, median area with moderate close, very shallow punctures, interstices reticulate, appearing subgranulate; median line impunctate, extending slightly past middle, somewhat elevated anteriorly; sides with very low, broad, small asperities becoming granulate near base; vestiture of scanty, fine, appressed hairs.

Elytra wider than pronotum and 1.90 times as long, 1.39 times as long as wide; anterior margins rather weakly arcuate, crenulate, with scattered, lunate asperities posterior to it; sides nearly straight and subparallel on less than anterior two-thirds, rather narrowly rounded behind, with margins serrate; surface shining; striae wide and deep, with coarse, close, transverse punctures; interspaces variable, but not wider than striae, rugose-granulate, with granules coarse and uniseriate posteriorly; vestiture of small, semierect, inconspicuous hairs on disk, sides, and declivity; declivital granules coarser on interspaces.

Male.—Unknown.

Type locality.—Santa Clara, Jujuy, Argentina.

Host.—Unknown.

Type material.—Holotype, U.S.N.M. No. 56567.

The holotype was collected by G. L. Harrington on September 23, 1921.

Genus RENOCIS Casey

RENOCIS CHAPINI, new species

Female.—Reddish brown, with light cinereous scales and setae; 1.58 mm. long, 1.90 times as long as wide; allied to *Renocis braziliensis* Blackman and *R. insularis* Blackman, but slightly slenderer than either.

Frons with epistomal margin without visible tooth in median line, fringed with fine yellowish setae; broadly, shallowly impressed above epistoma, shining, finely punctured below, convex above, subopaque, finely reticulate, finely punctate, with short cinereous hairs and divided scales. Eye about three times as long as wide, finely faceted; inner outline scarcely emarginate. Antenna with scape, 5-segmented funicle, and club nearly equal in length; club 1.53 times as long as wide, ovate, with distal end subacuminate, sutures setose and weakly, annularly impressed.

Pronotum 1.36 times as wide as long, widest near base, basal margin bisinuate, sides strongly arcuate from base to weak constriction just behind the very broadly rounded front margin, which bears a few longer setae; surface reddish brown, weakly shining, finely, closely punctured, finely reticulate, subgranulate; each side with a few very small asperities, variable in number and scarcely visible; surface partly concealed by numerous small, cinereous scales, often bifurcate, many of those near base nearly white.

Elytra wider than pronotum and 1.92 times as long, 1.31 times as long as wide; sides subparallel on anterior two-thirds, rather broadly rounded behind; basal margins from suture to fifth interspace with 6-7 crenulations on each elytron, in a continuous line; striae impressed, much stronger behind, punctures moderately large, close; interspaces wider, moderately convex, with numerous fine punctures bearing small, subcircular, appressed scales, with a median row of larger punctures bearing larger, narrower, erect scales in each interspace; scales varying in color from nearly white to testaceous, but not forming a color pattern. Declivity evenly arched, not modified, scales slightly longer and more erect than on disk.

The male is unknown.

Type locality.—Ocho Rios, Jamaica.

Host.—Unknown.

Type material.—Holotype and 1 paratype, U. S. N. M. No. 56568.

The two specimens comprising the type series were taken, flying at dusk, on February 2, 1937, near Ocho Rios, Jamaica, by E. A. Chapin and R. E. Blackwelder.

Genus *CHRAMESUS* LeConte

CHRAMESUS PANAMENSIS, new species

Female.—Dark reddish brown to piceous, opaque, with yellow-cinereous bristles and scales; 1.43 mm. long, 1.70 times as long as wide; allied to *hicoriae* LeConte and *asperatus* Schaeffer, but smaller than either of these.

Frons convex above, flattened below, with epistomal lobe nearly as long as wide arising from the liplike epistomal margin; frontal rectangle (including lobe) 1.16 times as long as wide; surface opaque to subopaque, reticulate, very finely granulate, with minute punctures bearing short, moderately stout, dorsally directed hairs. Antenna arising from side near eye, similar in general to that of *hicoriae*. Eye rather large, facets moderately large, inner line entire.

Pronotum 1.24 times as wide as long, posterior outline bisinuate, moderately produced in median line; sides strongly arcuately convergent, broadly rounded in front; feebly, transversely impressed just behind front margin; surface opaque, reticulate, finely granulate-punctate in median area, lateral areas with low, broad asperities parallel to lateral outlines and extending to base; entire surface with rather sparse, flattened, cinereous setae directed posteromesad on disk.

Elytra wider than pronotum and 1.50 times as long, 1.12 times as long as wide; bases arcuate, elevated, and serrate; sides feebly arcuate, broadly rounded behind; dorsal contour obliquely arcuate from base to apex; surface opaque to subopaque; striae impressed, with shallow, moderate-sized punctures; interspaces much wider than striae at base,

slightly wider midway, convex, uniseriately granulate, with a median row of erect, stout, yellowish-cinereous setae, with numerous much smaller, scalelike setae on sides of each interspace and between the larger setae; declivity without special modifications.

Male.—Similar to female in habitus but with frons strongly concave, bordered at each side by a sharp, elevated ridge.

Type locality.—Panama Canal Zone.

Host.—Unknown.

Type material.—Holotype, allotype, and 5 paratypes, U. S. N. M. No. 56569.

The type series was collected by E. A. Schwarz in February and March 1911.

Genus PHRIXOSOMA Blandford

PHRIXOSOMA MAGNA, new species

PLATE 17, FIGURES 37-40

Piceous-brown, with elytra lighter brown; 3.91 mm. long, 1.93 times as long as wide; larger and much stouter than *Phrixosoma rude* Blandford.

Frons (fig. 38) convex, opaque, densely, finely granulate throughout, with fine median carina on lower half, somewhat flattened at each side; vestiture of fine, rather short, dense, yellowish hairs which are inconspicuous except in profile. Eye divided, the parts entirely separated (fig. 39) by a broad area having the texture and vestiture of the frons; facets of moderate size. Antenna (fig. 40) with scape long, slender, 2.46 times as long as 6-segmented funicle, club longer than funicle, 1.28 times as long as wide, pubescent, with 3 nearly straight sutures, marked by rows of longer setae, only the first suture partly septate.

Pronotum 1.35 times as wide as long, widest behind middle; posterior outline bisinuate, feebly margined toward sides, posterior lateral angles broadly rounded, sides not margined, very strongly arcuate, very broadly rounded in front, surface opaque, finely, densely granulate, with fine, short hairs; median line narrowly elevated on less than posterior half.

Elytra wider than pronotum and 2.06 times as long, 1.33 times as long as wide; bases margined and slightly elevated, finely granulate-crenate; sides weakly arcuate on anterior two-thirds, more strongly behind, apex rather narrowly rounded; surface opaque, cinnamon brown, infumated with piceous brown on humerus; striae deeply impressed, narrow, punctures small and moderately spaced; interspaces broad, weakly convex, densely, finely granulate, with fine, short, silky, cinereous hairs, similar on disk, sides, and declivity.

The locality.—Bolivia, South America.

Host.—Unknown.

Type material.—Holotype and 4 paratypes, U. S. N. M. No. 56570.

The type series was collected by G. L. Harrington in the Departments of Beni and La Paz, Bolivia, in August and September 1925.

PHRIXOSOMA OBESA, new species

Dark cinnamon-brown with elytra lighter, 2.36 mm. long, 1.86 times as long as wide; smaller and slightly stouter than *Phrixosoma magna*, new species.

Frons convex, surface opaque, densely, finely granulate, with very fine, indistinct median carina on lower half, transversely impressed above epistomal margin; vestiture fine, short, inconspicuous except in profile, slightly longer on epistoma. Eye entirely divided into two parts, separated by a broad area having the texture and vestiture of the frons; facets rather small. Antenna apparently similar to that of *magna*, new species (no balsam mounts available).

Pronotum 1.26 times as wide as long, widest at base; posterior outline bisinuate, submargined toward sides, posterior lateral angles sharp; sides arcuately narrowed from base to broadly rounded front margin; surface subopaque, finely, densely granulate-punctate, with fine, short hairs, conspicuous only with proper lighting; median line narrow, elevated, shining, and impunctate, evident only on posterior third.

Elytra wider than pronotum and 1.84 times as long, 1.31 times as long as wide; bases submargined, granulate; sides nearly straight, very feebly arcuate on anterior two-thirds, apex moderately rounded; surface opaque, cinnamon-brown; striae narrow, deeply impressed, punctures small, indistinct, close; interspaces wide, nearly flat on disk, convex behind, finely, closely granulate, with fine, rather short, silky, yellow-cinereous hairs, similar throughout.

Type locality.—Gatun, Panama Canal Zone.

Host.—Unknown.

Type material.—Holotype, U. S. N. M. No. 56572.

The holotype was taken by E. A. Schwarz on April 7, 1911.

PHRIXOSOMA PARVA, new species

Piceous-brown, subopaque, with elytra slightly lighter, 2.10 mm. long, 2.16 times as long as wide.

Frons convex, surface opaque, densely, finely granulated, with very fine, indistinct median carina on lower half, epistoma slightly impressed at each side; vestiture short, fine, inconspicuous, longer on epistoma. Eye bipartite, the smaller upper portion entirely sepa-

rated from the lower portion by a broad area similar in texture and vestiture to the frons. Antennae similar to those of other species.

Pronotum 1.14 times as wide as long, widest at base, posterior outline bisinuate, submargined toward sides, posterior lateral angles not rounded; sides without beaded margin, weakly convergently arcuate on posterior half, constricted before middle, broadly rounded in front; surface subopaque, finely, densely granulate-punctate, with rather short, fine hairs, inconspicuous except with proper lighting; median line narrow, slightly elevated, on posterior two-fifths.

Elytra only slightly wider than pronotum and 1.87 times as long, 1.51 times as long as wide; bases feebly arcuate, margins scarcely elevated; sides nearly straight, feebly converging on anterior two-thirds, narrowly rounded behind; surface subopaque, striae moderate in width, impressed, punctures small, moderately spaced; interspaces nearly twice as wide as striae, nearly flat on disk, somewhat convex behind, finely, closely granulate-punctate, with fine, moderately short, silky hairs throughout; declivity rather sloping.

Type locality.—Cayamas, Cuba.

Host.—Unknown.

Type material.—Holotype and 1 paratype, U. S. N. M. No. 56571.

The type material was collected by E. A. Schwarz on February 14.

Genus *LEPERISINUS* Reitter

LEPERISINUS *HOFERI*, new species

Female.—Reddish brown to piceous, with anterior borders of pronotum and elytra lighter; 2.6–3.5 mm. long, holotype 3.43 mm. long, 1.9 times as long as wide; allied to *californicus* Swaine and *imperialis* Eichhoff.

Frons broadly, moderately deeply concave, surface reticulate, subshining, sides finely, rather closely punctate, subgranulate, more distinctly granulate-punctate above, median area below with very few, very fine punctures, bearing few hairs, sides and upper frons with light, sordid-yellow, appressed, moderately long hairs directed mesodorsad; frontal rectangle 0.54 as long as wide, very wide between eyes, epistomal lobe very low and wide, with epistomal margin ventrad of it broadly emarginate. Eye elongate oval, margin entire, facets moderately coarse. Antennal club elongate oval, compressed, with silky pubescence and a few longer hairs; first two sutures transverse, third obliquely arcuate.

Pronotum 1.34 times as wide as long, widest slightly before base; posterior outline bisinuate, somewhat produced in median line; posterior lateral margins rounded, sides strongly, convergently arcuate,

constricted anteriorly, anterior margin very broadly rounded, scarcely impressed posterior to it; surface shining but mostly concealed by scales, punctures dense but very shallow, interstices variably granulate in median area; lateral areas with rather numerous, coarse asperities arranged as a submarginal row in front and extending to base and across anterior disk, smaller behind and in anterior median area; color markings produced by scales of two colors—dark-brown scales in a nearly regular, diamond-shaped median area and an irregular area at each side of disk, and at each side two light areas formed by light-yellow cinereous scales, one at extreme sides and one between the median and lateral dark areas.

Elytra wider than pronotum and 2.07 times as long, 1.35 times as long as wide; bases arcuate, elevated, and serrate; sides subparallel on anterior half, then gradually narrowed to the narrowly rounded apex; dorsal contour oblique, arcuate from middle to apex; surface shining, but almost entirely hidden by scales and hairs of two colors; striae impressed, punctures small and indistinct; interspaces wide, nearly flat on disk, more or less convex behind, granulate-punctate with larger granules or asperities, densely clothed with scales varying from subcircular to slender and with a few hairs, with hairs or slender scales forming the middle row in each interspace on sides and on anterior part of disk, these replaced on posterior half by erect or semierect, broad scales which exaggerate the convexity of the posterior part of most interspaces. Declivity sloping, suture decidedly convex, second interspace narrow, flat, appearing depressed, third interspace broad, convex, the others slightly convex. Color pattern of elytra formed by arrangement of dark-brown scales and hairs and yellow-cinereous scales and hairs as follows: A dark band at base, then a wider, irregular, light band, next an irregular dark band, incomplete at sides, followed by a light, irregular, oblique band, and finally an irregular dark spot involving interspaces 2 and 3; posterior border and sides prevailingly light.

Male.—Similar to female in habitus; frons flattened from eye to eye, reticulate, subshining, finely punctate, with hair as in female; median carina short, blunt, shining, midway between epistomal margin and upper level of eye.

Type locality.—Sabino Canyon, Ariz.

Host.—*Fraxinus* sp.

Type material.—Holotype, allotype, and 19 paratypes, U. S. N. M. No. 56573.

Holotype, allotype, and 12 paratypes taken from felled ash trap tree, at Sabino Canyon, Ariz., May 20, 1918, by George Hofer, 7 paratypes taken from *Fraxinus* sp. at Meek, N. Mex., by W. F. Fiske.

LEPERISINUS OREGONUS, new species

Female.—Piceous-brown, with elytra and anterior border of pronotum lighter; 2.8–3.3 mm. long, holotype 3.00 mm. long, 1.91 times as long as wide; allied to *californicus* Swaine and *hoferi*, new species, and intermediate in size between the two.

Frons very wide between eyes, frontal rectangle 0.61 as long as wide; broadly, rather deeply concave, more strongly above; surface shining except where hidden by vestiture, faintly reticulate, moderately closely, finely punctate at sides, subgranulate-punctate above, median eighth between eyes with few or no punctures; sides and upper frons with rather coarse, moderately long, cinereous hairs, directed mesodorsad; epistomal lobe inconspicuous. Eye less elongate than in *californicus* and *hoferi*, facets moderately coarse. Antennal club 1.7 times as long as wide, somewhat compressed, first 2 sutures transverse, third suture slightly arcuate and oblique.

Pronotum 1.41 times as wide as long, widest at base; posterior outline bisinuate; posterior lateral angles not rounded, sides arcuate and convergent, slightly constricted just behind the very broadly rounded anterior margin; surface almost entirely concealed by scales but shining where visible, median area punctate-granulate, lateral areas with asperities smaller than in *californicus* and much smaller than in *hoferi*, replaced by granules near base; color markings similar to those of its allies.

Elytra wider than pronotum and 2.14 times as long, 1.38 times as long as wide; bases arcuate and serrate, sides subparallel on anterior half, then gradually narrowed, moderately rounded behind (more broadly rounded than in *hoferi*); dorsal contour nearly straight on more than anterior half, declivity weakly arcuate; surface almost entirely hidden by scales and hairs; striae impressed, narrow, nearly concealed by scales from interspaces, punctures small and inconspicuous; interspaces wide, nearly flat, finely granulate-punctate, asperities much smaller than in *californicus*, *hoferi*, etc., not notably larger on posterior half; vestiture of scales and hairs, of which the former are much more numerous; middle row of vestiture in each interspace on sides and on anterior half of disk consisting of semierect hairs or slender scales, middle rows on first 3 interspaces of the declivity of large, erect scales, very broad on distal two-thirds; color pattern formed of yellow scales and hairs and brown scales and hairs similar in general to that of its allies.

Male.—Similar to female in habitus, frons not so deeply concave and with a distinct transverse elevation (carina) between bases of antennae, and extending dorsad from this an elevated median carina; surface not so finely punctured, with slightly sparser hairs; pronotal

and elytral asperities coarser and yellow scales more numerous than in female; elytral interspaces with larger asperities than in female.

Type locality.—Forest Grove, Oreg.

Additional localities.—Corvallis, Portland, St. Helens, Oreg.

Host.—*Fraxinus oregona* Nuttall.

Type material.—Holotype, allotype, and 25 paratypes, U.S.N.M. No. 56574.

The holotype, allotype, and 5 paratypes were taken from Oregon ash at Forest Grove, Oreg., by M. C. Lane, January 8, 1919; 11 paratypes, Corvallis, Oreg., 1931; 7 paratypes taken at Portland, Oreg., August 31, 1926, by C. E. Wood; 2 paratypes, St. Helens, Oreg., from *Fraxinus*, by A. D. Hopkins.

Genus PHLOEOSINUS Chapuis

PHLOEOSINUS BLACKWELDERI, new species

Male.—Black, with elytra reddish brown; 2.97 mm. long, 2.10 times as long as wide; closely allied to *nitidus* Swaine and *cupressi* Hopkins.

Frons rather wide between eyes, frontal rectangle about 0.63 as long as wide; epistomal lobe very short; surface piceous, finely, densely granulate-punctate at sides, deeply, closely punctate above (more so than in *nitidus*), median area shining, concave between eyes (less deeply than in *nitidus*), not extending to epistoma, which is very finely granulate-punctate; median carina short and not conspicuous; hairs short. Eye more than 3 times as long as wide, more than half divided by an emargination. Antenna with club nearly twice as long as wide, sutures oblique.

Pronotum 1.10 times as wide as long, widest at base; sides regularly, convergently arcuate, without constriction, broadly rounded in front; surface brightly shining, piceous-black, closely, deeply punctured on disk, more finely and densely near anterior margin, sides subgranulately punctured; lateral calli distinct; hairs fine and short (shorter than in *nitidus*) over most of pronotum, with longer hairs anterolaterad of calli.

Elytra wider than pronotum and 1.63 times as long, 1.34 times as long as wide, widest behind middle; sides slightly sinuate, subparallel, very broadly rounded behind; surface shining, striae sinuate, deeply impressed, punctures large, close, shallow; interspaces on disk rugose-granulate, convex, with very fine punctures, much wider than striae near base, about equal in width to striae on most of disk, granules confused anteriorly, becoming uniseriate posteriorly; sides with striae and interspaces about equally wide, interspaces less strongly rugose and granulate; hairs short and fine, not abundant. Declivity abrupt, of the *nitidus-cupressi* type, with coarse, black serrations; first inter-

space with several (three in type) coarse, black serrations only at summit of declivity, with apical three-fourths flat, shining, moderately, rather roughly punctured; second interspace obliterated in middle half of declivity but widened into an angular area near apex; third interspace elevated, with 8-10 coarse, stout, blunt, black serrations (coarser and much blunter than in *nitidus*); fifth, seventh, and ninth interspaces each with a few smaller serrations; hairs slightly longer than on disk.

Female.—Similar to male but averaging somewhat larger; frons wider between eyes, frontal rectangle 0.62 as long as wide; convex, densely granulate-punctate, median carina variably, often feebly developed on lower half; pronotum with lateral calli less developed; elytral declivity similar to that of *nitidus* but with the serrations much smaller; with numerous scales on first to fourth interspaces.

Type locality.—Ciricito, Panama Canal Zone.

Host.—Unknown.

Type material.—Holotype, allotype, and 14 paratypes, U. S. N. M. No. 56576.

The type series was taken March 4, 1930, by R. E. Blackwelder, as the specimens alighted upon the trunk of an unknown felled tree at Ciricito, Canal Zone.

CARPHOBIUS, new genus

Body subcylindrical, moderately stout, ornamented with hairs; frons convex above, flattened below; eye weakly emarginate, finely faceted; antennal club connate, with impressed, setigerous sutures, partly septate, funicle 6-segmented; pronotum wider than long, with posterior outline bisinuate as in *Phloeosinus* Chapuis, fore coxae moderately widely separated, third tarsal joint bilobed; elytra with anterior margins arcuate, serrate, striae scarcely impressed, interspaces with moderate hairs; declivity moderately sulcate, first interspace somewhat elevated, third interspace more strongly elevated, granulate-dentate in male.

Genotype, *Carphobius arizonicus*, new species.

CARPHOBIUS ARIZONICUS, new species

PLATE 17, FIGURES 41-45

Female.—Piceous-brown; 1.79 mm. long, 2.23 times as long as wide.

Frons (fig. 43) convex above, somewhat flattened, feebly subconcave below, finely, moderately closely, subgranulately punctured, with fine hairs of moderate length. Eye with inner outline broadly, shallowly emarginate; facets fine. Antenna (fig. 45) with scape club-shaped,

as long as club; funicle very slightly shorter, 6-segmented, with distal segment much wider than others; club 1.44 times as long as wide, widest through second segment; first two sutures incompletely septate, very strongly annulately constricted, and further marked by rather long, conspicuous hairs, third suture marked by setae.

Pronotum 1.18 times as wide as long, widest near base, posterior angles somewhat rounded, posterior outline bisinuate as in *Phloeosinus* spp., sides feebly, convergently arcuate on posterior half, distinctly constricted in front of middle, very broadly rounded in front; surface piceous brown, shining, impressed across dorsum behind anterior margin, deeply, rather closely, moderately finely punctured on most of disk, more finely and densely in front, finely subgranulate-punctate at sides, median line not elevated, punctured as on rest of disk; vestiture of hairs of moderate size.

Elytra wider than pronotum and 1.86 times as long, 1.43 times as long as wide; anterior margins arcuate, elevated and serrate as in *Phloeosinus* spp.; sides subparallel on anterior two-thirds, broadly rounded behind; surface subshining, piceous brown; striae slightly impressed, punctures close, moderate in size; interspaces wider than striae, rugulose, feebly granulate, with many fine punctures and rather numerous, rather small hairs, granules reduced posteriorly. Declivity sloping, first and third interspaces elevated, finely punctured, not granulate, first stria impressed, distinctly punctured, second stria not impressed, punctures smaller than on disk; intervening second interspace flat, finely punctured; all of interspaces with numerous rather small hairs.

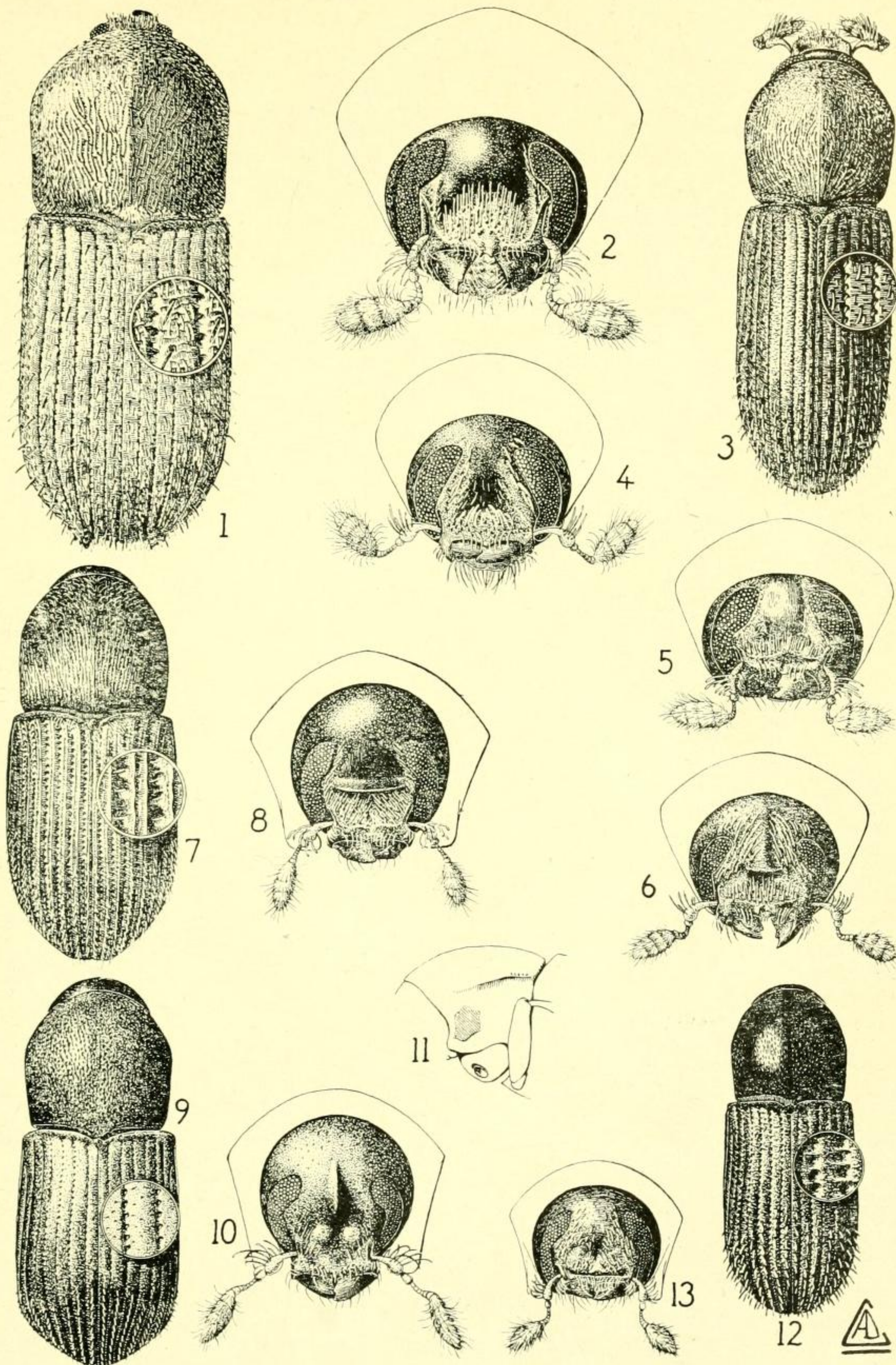
Male.—Slightly stouter than female but similar in general habitus; frons (fig. 44) more coarsely sculptured, distinctly but not strongly concave between eyes; elytral declivity with first interspace more weakly elevated than in female, third interspace more strongly elevated and with several tubercles, the two most posterior ones tooth-like, with their apices sharp.

Type locality.—Huachuca Mountains, Ariz.

Host.—Unknown.

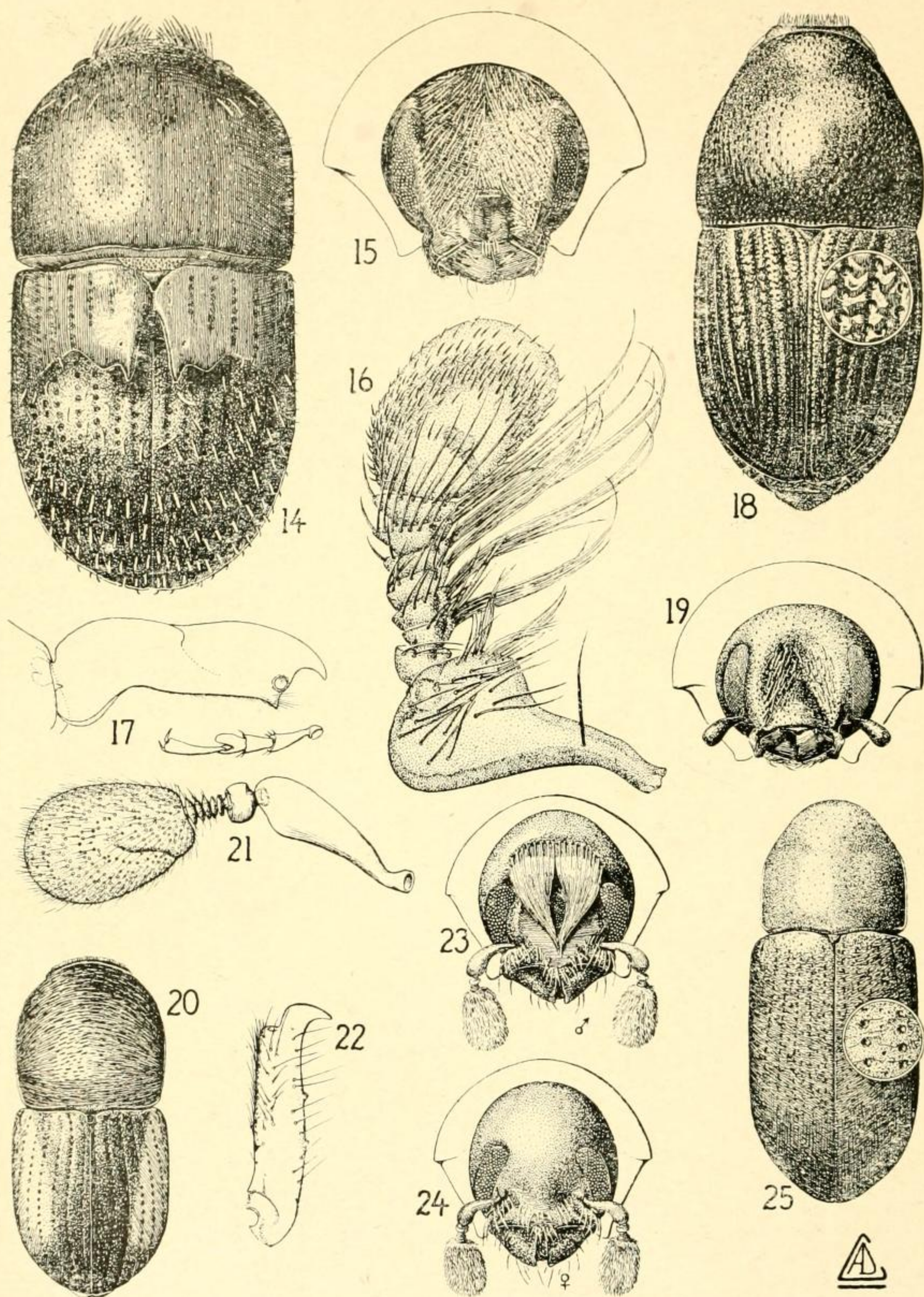
Type material.—Holotype, allotype, and 3 paratypes, U.S.N.M. No. 56575.

The type series, consisting of 4 females and 1 male, was collected in Miller Canyon, Huachuca Mountains, Ariz., August 27, 1907, by H. A. Kaeber.



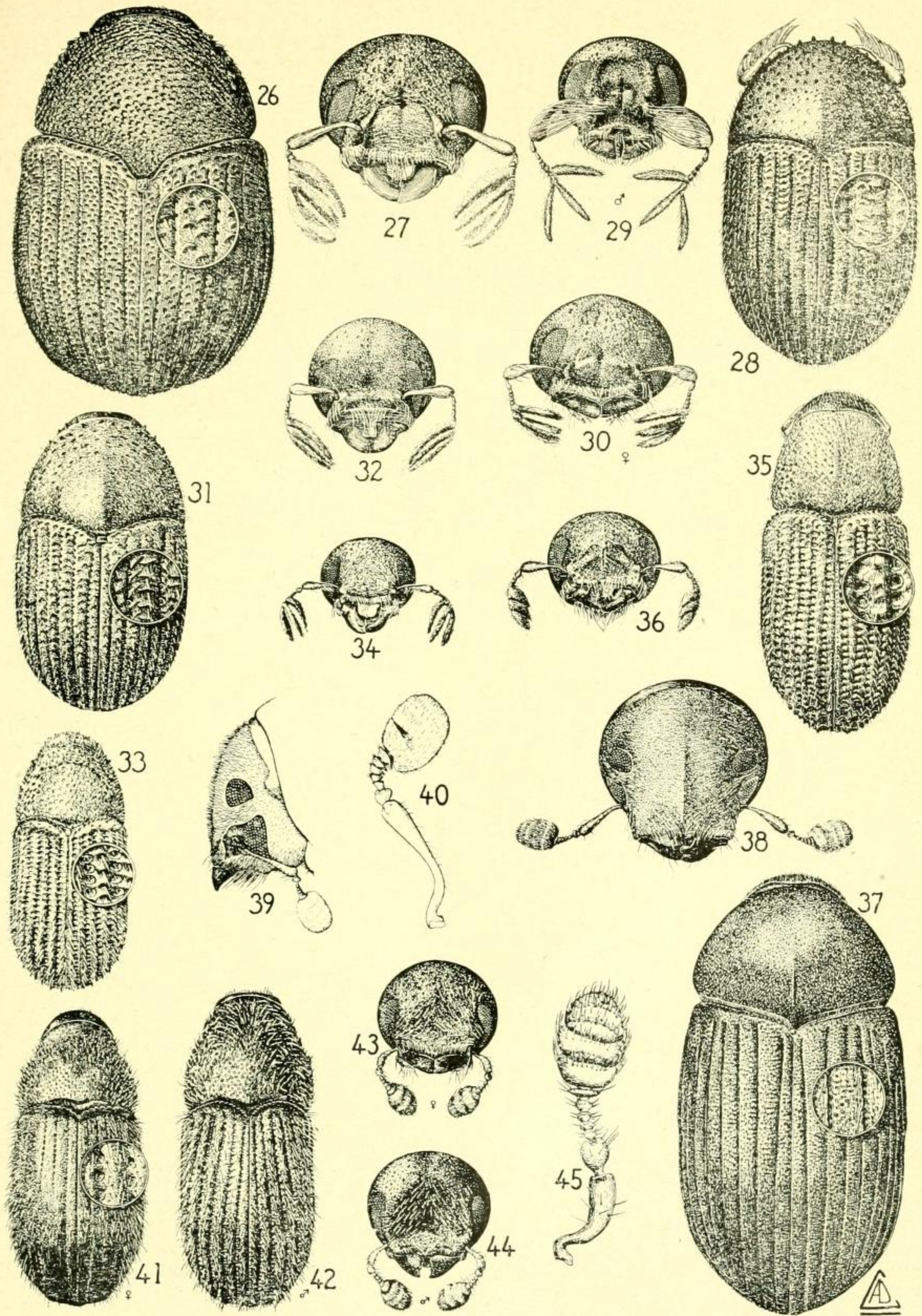
NEW SPECIES OF CNESINUS.

1, 2, *C. cubensis*, dorsal (1) and frontal (2) views; 3, 4, *C. panamensis*, dorsal (3) and frontal (4) views; 5, *C. robai*, frontal view; 6, *C. cognatus*, frontal view; 7, 8, *C. similis*, dorsal (7) and frontal (8) views; 9-11, *C. foveatus*, dorsal (9) and frontal (10) views and sketch of side of pronotum showing fovea (11); 12, 13, *C. nitidus*, dorsal (12) and frontal (13) views.



NEW SPECIES OF CAMPTOCERUS AND HEXACOLUS.

14-17, *Camptocerus quadridens*, dorsal (14) and frontal (15) views, antenna (16), and foretibia and tarsus (17); 18, 19, *C. boliviae*, dorsal (18) and frontal (19) views; 20-24, *Hexacolus swieteniae*, dorsal view (20), antenna (21), foretibia (22), frontal view of male (23), and frontal view of female (24); 25, *H. levis*, dorsal view.



NEW SPECIES OF PHLOEOTRIBUS, PHRIXOSOMA, AND CARPHOBIUS.

26, 27, *Phloeotribus manni*, dorsal (26) and frontal (27) views; 28–30, *P. argentiniae*, dorsal view (28), frontal view of male (29), and frontal view of female (30); 31, 32, *P. boliviae*, dorsal (31) and frontal (32) views; 33, 34, *P. harringtoni*, dorsal (33) and frontal (34) views; 35, 36, *P. jujuya*, dorsal (35) and frontal (36) views; 37–40, *Phrixosoma magna*, dorsal (37) and frontal (38) views, lateral view of head (39), and antenna (40); 41–45, *Carphobius arizonicus*, dorsal views of female (41) and male (42), frontal views of female (43) and male (44), and antenna (45).

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PROCEEDINGS OF THE UNITED STATES NATIONAL MUSEUM

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Vol.94 Washington: 1943 No. 3174

NEW SPECIES OF AMERICAN SCOLYTID

BEETLES, MOSTLY NEOTROPICAL

By M. W. Blackman ^

In the following pages 1 new genus and 29 new species of bark-beetles are described, the genus and 3 species from the United States and 26 species from Neotropical countries. Of the latter, 12 species are from Central America, 4 species from the West Indies, 3 species each from Colombia, Bolivia, and Argentina, and 1 species from southern Brazil.

The species here treated do not belong to a single restricted group of the Scolytoidea but represent a number of genera in several more or less distantly related tribes or subfamilies. The groups concerned

are Bothrosternini, Camptocerini, Hexacolini, Hylesinini, and Phloeotribini. All drawings for the plates were made by Arthur D. Cushman.

Genus CNESINUS LeConte

The genus Cnesinus was described by LeConte, 1868, to include his species *C. strigicollis* from Illinois. Since then about 20 species have been described from Central and South America. Apparently many additional species are still undescribed. In the present paper 8 new species are described.

CNESINUS CUBENSIS, new species

Plate 15, Figs 1, 2

Dark reddish brown ; 3.0 mm. long, 2.5 times as long as wide ; allied to *strigicollis* LeConte but larger, elytra with setae stronger, and declivity strongly retuse,

1 Dr. Blackman died on October 12, 1943, while this paper was in press. — Editor.

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Frons (fig. 2) with eyes moderately separated above, surface piceous, convex and nearly impunctate above ; below lighter in shade, concave, with definite, elevated side margins, punctures small, moderately spaced, bearing fine, short, yellow hairs directed dorsad, with a few similar hairs above, at each side near the eyes. Eye large, elongate oval, with inner line broadly, shallowly emarginate, facets rather coarse. Antenna with club fusiform, first two sutures septate.

Pronotum 1.03 times as long as wide, widest near middle, posterior outline bisinuate, posterior lateral angles scarcely rounded; sides nearly straight and very feebly diverging on posterior half, strongly, arcuately narrowed, very broadly rounded in front; surface subopaque, densely punctate-strigate, the strigae often broken up into granules, especially in front ; with numerous short, recumbent, yellow-cinereous hairs directed mesad; median line punctured as is rest of pronotum, indicated only by direction of hairs.

Elytra wider than pronotum and 1.66 times as long, 1.55 times as long as wide; sides subparallel on more than anterior two-thirds, moderately rounded behind ; surface shining but veiled by vestiture ; striae narrow, impressed, stria punctures fine ; interspaces wide, somewhat convex, rugulose, finely punctured, with a sparse median row of granules in each interspace, from each of which a stout, erect, brown bristle arises, with numerous, much finer, cinereous, recumbent hairs from finer interspacial punctures. Declivity sloping, strongly sulcate, and retuse ; suture and second interspace strongly impressed, forming a deep sulcus; all of interspaces granulate, third interspace forming the summit of the high lateral elevations, with three large

toothlike tubercles ; vestiture of two kinds as on disk, but both kinds longer and coarser.

Type locality. — Cayamas, Cuba.

Host. — Unknown.

Type material. — Holotype, U.S.N.M. No. 56548.

The holotype was collected by E. A. Schwarz, March 3.

CNESINUS PANAMENSIS, new species

Plate 15, Figures 3, 4

Dark reddish brown ; 2.24 mm. long, 2.6 times as long as wide ; rather closely allied to *strigicollis* LeConte.

Frons (fig. 4) black, moderately shining, convex above between the moderately approximated eyes (more closely than in *strigicollis*)., broadly impressed below, finely and closely punctured at sides, above, and on epistoma, more sparsely elsewhere ; with rather stout, moderately long hairs on sides and epistoma and with a few finer hairs in impression. Eye large, elongate ovate, rather coarsely faceted, inner line broadly, shallowly emarginate.

Pronotum 1.13 times as long as wide, widest near middle; posterior outline bisinuate, posterior lateral margins scarcely rounded; sides nearly straight and subparallel on more than posterior half, very broadly rounded in front; surface moderately shining, finely, closely punctate-strigate, median line lacking; hairs stout at sides and near front, nearly lacking on disk.

Elytra wider than pronotum and 1.61 times as long, 1.65 times as long as wide ; sides subparallel on anterior two-thirds, broadly rounded behind; surface shining; striae deep, moderately narrow, punctures small, indistinct; interspaces much wider than striae, reticulate, finely punctured, bearing rather numerous short, appressed hairs, with sparse uniseriate rows of small granules, with suberect bristle arising from base of each. Declivity sloping, broadly and shallowly sulcate in sutural area; interspaces narrower and more. convex than on disk, uniseriately granulate, with erect bristles more numerous than on disk.

Type locality. — Panama.

Host. — Unknown.

Type material. — Holotype and one paratype, U.S.N.M. No. 56549.

The type series was collected by E. A. Schwarz, March 12, 1911.

CNESINUS COGNATUS, new species

PiLATE 15, Figure 6

Dark reddish brown; 2.2 mm. long, 2.48 times as long as wide; rather closely related to *sfrigicollis* LeConte, but notably smaller and differing in the character and arrangement of the vestiture.

Frons (fig. 6) piceous-brown, subopaque, convex above between the moderately approximated eyes, bordered below by a transverse carina, with portion ventral to it broadly transversely impressed ; punctures fine and close below and at sides, with cinereous, moderately long, stout hairs, those from sides directed dorsomesad. Eye relatively smaller and more elongate oval than in *strigicoUis*, facets notably finer, inner line very broadly and shallowly emarginate.

Pronotum 1.05 times as wide as long, widest at middle, posterior outline slightly bisinuate, posterior lateral angles rounded; sides nearly straight and feebly diverging on posterior half, very broadly rounded in front ; surface moderately shining, finely, closely punctate-strigate, median line lacking; vestiture of stout, subsquamose hairs at base, sides, and apex, fine, short, and inconspicuous on disk.

Elytra slightly wider than pronotum and 1.75 times as long, 1.61 times as long as wide ; sides subparallel on anterior two-thirds, moderately narrowly rounded behind (not so broadly rounded as in *strigicollis*) ; surface shining through the rather abundant vestiture ; striae

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deep, moderately narrow, punctures small, rather indistinct; interspaces wider than striae, flat on disk, finely granulate-punctate, with numerous appressed, cinereous hairs of moderate size, the middle row in each interspace slightly longer and more erect at sides and behind; declivity moderately steep, interspaces narrower and somewhat convex, with erect hairs uniseriate and more numerous than on disk.

Type locality. — El Peten, Guatemala.

Host. — Unknown.

Type material— Holotype, U. S. N. M. No. 56550.

The holotype was collected on April 8, 1922, by H. F. Loomis.

CNESINUS ROBAI, new species

Plate 15, Figure 5

Dark piceous-brown to black; 2.34 mm. long, 3.73 times as long as wide.

Frons (fig. 5) with eyes rather narrowly separated above, its inter-

ocular area convex, black, brightly polished, with only a few minute, obsolescent punctures except at sides near eyes, where small, close punctures bear fine, rather short hairs; strongly, transversely impressed below convexity, with a distinct, small callus at each side of median line ; epistoma lighter in shade, with numerous reddish-yellow hairs directed dorsad. Eye large, wider than usual, broadly shallowly emarginate, facets coarse. Antenna with club elongate ovate, with sutures transverse, the first two septate.

Pronotum 1.04 times as long as wide, widest near middle; posterior outline bisinuate, posterior lateral angles rounded, sides arcuate and weakly divergent on slightly more than posterior half, then more strongly narrowed, broadly rounded in front; surface dark reddish brown, subshining, densely strigate, subasperate at sides in front; median line narrow, slightly elevated and distinct on posterior half; hairs fine, appressed behind, stouter anteriorly.

Elytra wider than pronotum and 1.91 times as long, 1.82 times as long as wide; sides nearly straight and subparallel on more than anterior half, then gradually arcuately narrowed, with apex moderately broadly rounded ; surface subshining, striae narrow, impressed, with small, inconspicuous punctures ; interspaces flat, rugulose, finely, irregularly granulate, with fine punctures and a few fine, short hairs irregularly arranged, the median row in each interspace longer and stouter near and on declivity.

Type locality. — Santander Department, Colombia.

Host. — *Coffea arabica*.

Type material.— 'RoXoiy^Q^ and 2 paratypes, U. S. N. M. No. 56551.

The type series was collected at an altitude of 700 to 1,300 meters
by K. P. Roba, in whose honor the species is named.

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NEW AMERICAN SCOLYTOID BEETLES — BLACKMAN 375

CNESINUS SIMILIS, new species

Plate 15, Figitres 7, 8

Male. — Dark piceous-brown ; 1.94-2.37 mm. long, holotype 2.2 mm.
long, 2.33 times as long as wide ; similar to *porcatus* Blandford and
costulati Blandford but differing in the shape and in the vestiture of
the elytra and especially in the frontal structures.

Frons (fig. 8) somewhat similar to that of *porcatus* but with the eyes
closer together above, the transverse carina even more strongly ele-
vated, the triangular area above more flattened and brilliantly shin-
ing, the ventral area moderately punctured, with fine, rather short
hairs (much finer, shorter, and less abundant than in *porcatus*)^ the
hairy area extending at sides to slightly above the eyes. Eye narrower
above than below the shallow emargination, facets moderately coarse.
Antenna reddish brown, 7-segmented funicle about as long as scape, its
distal segments slightly widened, club 1.8 times as long as wide, first

two sutures distinctly septate.

Pronotum 1.03 times as wide as long, posterior outline distinctly bisinuate, posterior lateral angles not rounded, sides nearly straight and subparallel on posterior half, then arcuately narrowed, very broadly rounded in front ; surface strigose, with narrow[^], shining interstices, transversely impressed near front margin, vestiture fine, rather scanty.

Elytra wider than pronotum and 1.69 times as long, 1.48 times as long as wide (stouter and proportionally shorter than in *porcatus*) ; bases separately rounded, sides nearly straight and subparallel on more than anterior half, then gradually, arcuately narrowed to a slight constriction, moderately rounded at tip ; striae rather wide and deep, punctures large on anterior third, small and inconspicuous behind ; interspaces of nearly equal width, sulcate on disk and sides, outer wall of sulci higher and wider, with fine punctures and fine, short hairs (smaller and less conspicuous than in *porcatus*) ; declivity moderately sloping, first interspace obscurely sulcate, the others subcostate, not sulcate, hairs larger and more numerous than on disk but much less numerous and conspicuous than in *porcatus*.

The female is unknown.

Type locality. — Porto Bello, Panama.

Host. — Unknown.

Type material. — Holotype male and 3 male paratypes, U.S.N.M.

No. 56552.

The type series was collected by E. A. Schwarz, February 28 and March 1, 1911.

CNESINUS FOVEATUS, new species

Plate 15, Figures 8-11

Piceous-black, with elytra very dark brown; 2.06 mm. long, 2.25 times as long as wide.

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Frons (fig. 10) dark brown, feebly shining, convex above, finely, obscurely punctured, with a few fine, short, inconspicuous hairs; median line with a strong carina extending orad to level of eye emarginations; epistoma transversely impressed; with a small, circular callus at each side, below end of carina. Eyes not approximate above, narrowly ovate, inner line shallowly emarginate, facets moderately coarse. Antennal club fusiform, first 2 sutures nearly completely septate.

Pronotum 1.03 times as long as wide, posterior outline weakly bisinuate, posterior lateral angles slightly rounded; sides nearly

straight and feebly diverging on posterior half, then arcuately narrowed, feebly constricted, broadly rounded in front; surface moderately shining, impressed just behind anterior margin, finely, shallowly, moderately closely punctate, substrigate; median line very narrow, feebly elevated. Propleura with a rather large fovea (fig. 11) & each side, lined with hairs, above and anterad of fore coxae, as in *PldoeohoTUS* etc.

Elytra wider than pronotum and 1.45 times as long, 1.31 times as long as wide, very slightly widest behind middle; bases separately arcuate, humeral callus very small; sides nearly straight on less than anterior three-fourths, very feebly diverging, then strongly narrowed, with apex rather narrowly rounded; surface subopaque; striae moderately impressed, stria punctures obscure, less so at sides; interspaces wide, flat, finely reticulate, minutely punctate, otherwise unmarked on disk; declivity moderately steep, its face somewhat flattened; interspaces narrower than on disk, weakly convex, with numerous small, irregularly arranged granules; disk and sides glabrous, declivity with numerous erect, yellow hairs, becoming uniseriate in each interspace near apex.

Type locality. — Trece Aguas, Guatemala.

Host. — Unknown.

Type material. — Holotype, U. S. N. M. No. 56553.

The holotype was collected by Schwarz and Barber at an altitude of about 900 feet.

CNESINUS SUBSTRIGATUS, new species

Female. — Piceous-black ; 2.43 mm. long, 2.93 times as long as wide; allied to gracilis Blandford.

Frons convex above, piceous, subopaque, reticulate, with fine punctures; epistoma impressed, interocular area flattened, both finely, rather closely punctured, with short, stout, erect, yellowish hairs nearly concealing surface. Eye rather large, not approximate above, inner line weakly emarginate, facets moderately coarse. Antenna of usual type for genus; club rather 3-jointed ovate, sutures transverse,

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the first two each nearly two-thirds septate ; segments of funicle considerably wider distally.

* Pronotum 1.07 times as long as wide, slightly widest near middle ; posterior outline nearly straight, posterior lateral angles rounded, sides nearly straight, very feebly diverging to middle, then arcuately narrowed, very broadly rounded in front; surface feebly shining throughout, feebly, transversely impressed back of anterior margin; with moderately close, rather fine, elongate punctures, not confluent and not strigate; median line extending from base to apex, narrow,

feebly elevated ; vestiture lacking.

Elytra wider than pronotum and 1.83 times as long, 1.83 times as long as wide; bases rather weakly arcuate; humeral callus evident; sides nearly straight and subparallel for about three-fourths of their length, then narrowed, moderately rounded behind; surface shining; striae narrow, impressed, the first more strongly; striae small, separated by their own diameter; interspaces weakly convex, rugulose, with fine punctures, not uniseriate, hairs few in number and very minute on disk and sides; declivity sloping; striae more deeply impressed than on disk; interspaces narrower, rather strongly convex, finely granulate, each with uniseriate row of erect, yellowish bristles.

The male is unknown.

Type locality. — Santander, Colombia.

Host, — Branches of *Coffea arabica*.

Type material. — Holotype and 2 paratypes, U. S. N. M. No. 56554.

The type series was taken from dry branches of *Coffea arabica*, Santander, Colombia, at an elevation of 700-1,300 meters, by R. P. Roba.

CNESINUS NITIDUS, new species

Plate 15, Figures 12, 13

Male. — Piceous to black, with elytra dark reddish brown ; 1.66 mm. to 1.88 mm. long, holotype 1.80 mm. long, 2.33 times as long as wide ; pronotum shining, not strigate but with longitudinal punctures.

Frons (fig. 13) strongly convex above, transversely impressed, sub-concave below; surface shining, finely, not closely punctured, with rather coarse, semierect hairs from epistoma and at sides above, directed dorsad; epistomal margin with finer hairs, directed orad. Eye long oval, inner line with shallow emargination at some distance above insertion of antennae ; facets moderately coarse.

Pronotum nearly exactly as long as wide, posterior outline weakly bisinuate, posterior lateral angles rectangular, sides nearly straight and feebly diverging on posterior half, then arcuately narrowed, feebly constricted, broadly rounded in front ; surface brightly shining.

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with rather small, elongate punctures, not truly strigate ; median line inij)unctate from base to apex, not elevated; subglabrous.

Elytra wider than pronotum and 1.70 times as long, 1.44 times as long as wide, widest behind middle ; bases separately, feebly arcuate ; sides nearly straight and feebly divergent on anterior two-thirds, then narrowed, very broadly rounded behind; surface shining; striae im-

pressed, punctures large and conspicuous anteriorly, becoming inconspicuous behind ; interspaces wider than striae, slightly convex anteriorly, more strongly convex near declivity, rugulose, with small punctures, becoming finely granulate behind; declivity moderately steep, somewhat flattened in sutural region; anterior half subglabrous, posterior half, including declivity, with conspicuous, yellow-cinereous, erect bristles.

Female. — Very similar to male in most respects; frons similar to male, but with epistomal region much more finely and densely punctured ; vestiture similarly disposed but much finer and less conspicuous.

Type locality. — Tampico, Mexico.

Additional localities. — Livingston, Guatemala ; Trece Aguas, Guatemala (elevation 900 feet), and Porto Bello, Panama.

Host. — Unknown.

Type material. — Holotype, allotype, and 12 paratypes, U.S.N.M. No. 5555.

The holotype, allotype, and 2 paratypes were taken at Tampico.

Mexico, by E. A. Schwarz ; 4 paratypes were collected by Barber and Schwarz at Livingston and Trece Aguas, Guatemala ; 1 paratype was taken by A. Busck at Porto Bello, Panama.

Genus CAMPTOCERUS Latreille

CAMPTOCERUS BOLIVIAE, new species

Plate 16, Figures 18, 19

Female. — Black, moderately shining; 3.50 mm. long, 2.45 times as long as wide; last two abdominal segments visible beyond end of elytra.

Frons (fig. 19) convex, opaque above eyes; frontal rectangle 1.08 times as wide as long; strongly concave from upper level of eyes to epistoma, surface reticulate, with moderately close, deep punctures bearing fine, rather short hairs ; surface with an arcuate elevation on lower frons and epistoma, epistomal lobe short and wide. Eye wider above, the lower end subangulate, facets moderately fine. Antenna with club irregularly ovate, attached to funicle at side of base, with little evidence of suture, except for a faint partial septum.

Pronotum 1.07 times as wide as long, posterior outline weakly bisinuate, with strong beaded margin, posterior lateral angles weakly

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rounded ; sides with sharply elevated, beaded margin ; lateral outline strongly arcuate, considerably narrowed in front of middle, very broadly rounded in front ; surface feebly shining, reticula elongated,

punctures deep, rather line, moderately close ; glabrous.

Elytra scarcely wider than pronotum and 1.24 times as long, 1.14 times as long as wide ; bases nearly straight, sides subparallel on anterior two-fifths, then semicircularly rounded, leaving the last two tergites exposed; surface moderately shining, strongly sculptured; dorsal contour arcuate from base to apex; striae strongly impressed, punctures moderately small, separated by their own diameters on anterior half, very fine and indistinct behind; interspaces wider than striae anteriorly, narrower than striae posteriorly, convex, granulate, distinctly punctured anteriorly, punctures less distinct posteriorly; vestiture entirely lacking, except at extreme side's.

Type locality. — San Borja, Beni, Bolivia.

Host. — ^Unknown.

Type material. — Holotype and 1 paratype, U. S. N. M. No. 56557.

The type series was collected in August 1925 by G. L. Harrington.

CAMPTOCERUS QUADRIDENS, new species

Plate 16, Figures 14-17

Male. — Dark reddish brown ; 3.6 mm. long, 1.96 times as long as wide.

Frons (fig. 15) concave from eye to eye, with frontal rectangle 1.13

times as long as wide ; surface subshining, finely, rather closely punctured, with moderate, yellow hairs directed dorsomesad; epistoma separated above by a low, short, transverse carina in median third between bases of antennae, surface shining, median third apparently devoid of punctures, sides finely, closely punctate, with fine hairs, epistomal margin transverse, with short, downwardly directed hairs. Antenna (fig. 16) with scape longer than club or funicle, flattened, club-shaped, with rather long hairs, funicle 7-segmented, segments progressively widened distally, with joints 2-7 bearing long, stout hairs the end of many of which extend beyond the rather small club, which has indistinct sutures, only the first one having a partial septum.

Pronotum 1.18 times as wide as long, posterior outline bisinuate, with a strong, beaded margin, posterior lateral angles scarcely rounded; sides with a sharply elevated, beaded margin, lateral outlines nearly straight and subparallel on more than in posterior half, then abruptly narrowed, broadly rounded in front; surface moderately shining, faintly reticulate, with fine, moderately spaced punctures, closer in front; vestiture apparently lacking on disk, with a few moderate hairs on anterior fourth.

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Elytra equal in width to pronotum, and 1.26 times as long, 1.08 times as long as wide ; bases bisinuate, sides nearly straight and subparallel on anterior half, then gradually, arcuately narrowed, moderately rounded behind ; disk short, comprising only about two-fifths of the total length of elytra, surface brightly shining; stria punctures small, in fairly regular rows, striae not impressed; interspaces flat, with a few very minute punctures, apparently glabrous, the first and second interspaces each ending in a tooth extending caudad over the excavated anterior portion of the declivity, that from the first interspace being longer and sharper. Declivity originating in the recess formed by the overhanging posterior edge of the discal portion, sloping, arcuate ; stria punctures in imperfect rows ; interspaces rugulose, each with a median row of granules, from which arise yellow hairs, long and slender near summit, stouter and spatulate toward apex; posterior lateral border with a rather fine beaded margin.

Type locality. — Panama Canal Zone.

Host. — Unknown.

Type material.— Holotype, U. S. N. M. No. 56556.

The holotype was collected "from felled tree," August 19, 1923, by J. Zetek.

Genus CERATOLEPIS Chapuis

CERATOLEPIS NUBILUS, new species

Male. — Reddish brown, infumated with piceous; 2.14 mm. long, 2.34 times as long as wide ; allied to *G. errans* Blandf ord.

Frons distinctly concave; surface finely, closely punctured, with numerous short, rather stout, light-cinereous hairs, evenly distributed over concavity; epistomal margin strongly incurvate. Eye slightly wider above, lower end not angulate, inner line entire, facets rather large. Antenna similar to that of *errans*.

Pronotum almost exactly as long as wide, posterior outline nearly straight, with distinct, beaded margin, posterior lateral angles rounded; sides arcuate from base to apex, with beaded margin extending four-fifths of distance from base, anterior margin moderately broadly rounded; surface weakly shining, punctures deep, rather close, closer at sides and in front ; subglabrous, median line narrowly impunctate behind, not elevated.

Elytra very slightly wider than pronotum and 1.43 times as long, 1.34 times as long as wide; bases weakly arcuate, sides straight and subparallel on anterior two-thirds, moderately narrowly rounded behind; surface moderately shining, strongly sculptured; striae impressed, punctures close and large near base, smaller behind ; interspaces much wider than striae, convex, strongly rugose, with uniseriate punctures nearly as large as those of striae on anterior half.

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smaller and obscurely granulate behind, without hairs or with a very few minute ones on anterior disk ; declivity originating at about middle, gradually, arcuately sloping, interspaces with rounded granules and with short, stout, cinereous hairs.

Type locality. — St. Croix, Virgin Islands.

Host. — Unknown.

Type material.— Roloiy^Q, U. S. N. M. No. 56558.

The holotype was collected by H. A. Beatty.

Genus HEXACOLUS EichhofiF

HEXACOLUS SWIETENIAE, new species

Plate 1G, Figures 20-24

Male. — Very dark reddish brown, with basal two-thirds of pronotum and a stripe on each elytron lighter reddish brown ; 1.93 mm. long, 2.11 times as long as wide; intermediate in size between *Hexacolus cecropii* Schedl and *H. hlundfordi* Schedl.

Frons (fig. 23) subimpressed, shining, reticulate, with few very fine

punctures and small hairs, surface usually almost entirely hidden by a dense veil of long yellow hairs extending orad from vertex, epistoma impressed at each side, elevated in median line, with moderately long hairs from oral margin. Eye large, elongate, ovate, facets rather fine, inner line feebly sinuate. Antenna (fig. 21) with scape club-shaped, 2.66 times as long as the 6-segmented funicle and slightly longer than the obovate club, which has a half septum on first suture.

Pronotum nearly as long as wide, widest at middle ; posterior outline bisinuate, margined toward sides, posterior lateral angles strongly rounded; sides strongly margined for three-fourths of their length, arcuate, weakly behind, strongly anteriorly, very broadly rounded in front ; surface shining, very dark reddish brown in front, much lighter behind with darker shade extending farther back in median area; surface with rather strong, low, transverse asperities anteriorly, which become lower and finer on posterior half, where they are reduced to a slightly elevated anterior rim to each fine puncture ; interstices finely, distinctly reticulate; vestiture minute and scanty, to be seen only in certain lighting.

Elytra slightly wider than pronotum and 1.36 times as long, 1.21 times as long as wide ; bases sinuate, distinctly margined, sides weakly arcuate on anterior two-thirds, then more strongly, arcuately narrowed to the moderately narrow apex, extreme apex emarginate at suture, exposing last abdominal tergum; surface brightly shining, convex, much more strongly behind, appearing glabrous but with minute hairs on interspaces; color dark reddish brown in median area and on extreme sides, with an undefined light-reddish-brown area on disk

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at each side; striae finely, closely punctured, the first strongly impressed, second and third weakly impressed, lateral striae not at all impressed, interspaces smooth, scarcely rugulose near base, with a few fine, uniseriate punctures; declivity gradually sloping, suture elevated, first striae impressed as on disk. Last tergum pale yellow, with short, fine hairs.

Female. — Slightly smaller (1.85 mm. long) and slightly slenderer; frons (fig. 24) convex above, transversely impressed between bases of antennae, median line indefinitely elevated, surface subopaque, finely, distinctly reticulate, with sparse, fine, indistinct punctures bearing short, fine, inconspicuous hairs.

Type locality. — Costa Rica.

Host. — Mahogany (hybrid?)

Type material. — Holotype, allotype, and 5 paratypes, U.S.N.M.

No. 56559.

The type series was intercepted at the New York Quarantine Station in logs of hybrid (?) mahogany. May 18, 1941.

Two specimens taken from cedar logs from Costa Rica at the same quarantine station are similar in size, proportions, and sculpture, but are nearly uniformly light reddish brown. They are believed to be specimens of the same species that have not yet attained their full coloration.

HEXACOLUS LEVIS, new species

Plate 16, Figure 25

Female. — Dark reddish brown, unicolorous ; 2.2 mm. long, 2.33 times as long as wide.

Frons weakly convex above, subopaque, reticulate, with very sparse punctures; impressed between bases of antennae, with a few larger punctures ; epistoma shining ; hairs very fine, short, and scanty. Eye of moderate size, facets rather small, inner line entire. Antenna notably shorter than in *Eexacolus swieteniae*, new species ; scape club-shaped but slenderer, 2.36 times as long as funicle and about twice as long as club, which is nearly as wide as long, without sign of a septum.

Pronotum as long as wide, widest near base, posterior outline very feebly sinuate, feebly margined only near the slightly rounded posterior lateral angles, sides sharply margined from base to middle, weakly arcuately convergent to beyond middle, broadly rounded in front; surface subshining, glabrous, finely, distinctly reticulate, with very fine punctures, sparsely arranged, no granules or asperities present.

Elytra distinctly wider than pronotum and 1.79 times as long, 1.57 times as long as wide ; widest near base ; base weakly sinuate, margined toward sides; sides nearly straight and subparallel on anterior two-thirds, narrowly rounded behind, extreme tip emarginate at suture,

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exposing last tergite ; surface shining, finely rugulose, reticulate, striae punctures small, shallow, in definite rows, but striae except first two not impressed; interspaces flat, very finely punctured, with no hairs visible ; declivity moderately sloping, unmodified.

The male is unknown.

Type locality. — Paraiso, Panama Canal Zone.

Host. — Unknown.

Type material.— Holotype and 3 paratypes, U.S.N.M. No. 56560.

The type series was collected by E. A. Schwarz, January 26, 1911.

Genus PRIONOSCELES Blandford

PRIONOSCELES INGAE, new species

Female. — Black, shining, with abundant cinereous hairs on elytra;

1.97 mm. long, 1.99 times as long as wide.

Frons convex above, surface feebly shining, reticulate, strongly punctured, with median line indefinitely elevated ; below subsemicircularly flattened, with somewhat smaller, less distinct punctures and no sign of a median elevation ; epistoma somewhat elevated, with conspicuous tuft of hairs from epistomal margin; frontal hairs sparse and inconspicuous. Eye narrow ovate, inner line entire, facets small.

Antenna yellowish" red with club inf umated with darker coloration ; scape club-shaped, funicle shorter than scape, 6-segmented, with distal segments much wider ; club oval, with one nearly complete septum.

Pronotum exactly as long as wide, posterior outline bisinuate, distinctly margined throughout, with margin continuing at sides well past middle, posterior lateral angles rounded, sides subparallel and nearly straight (very feebly arcuate) to well past middle, very broadly rounded in front; surface shining; anterior third with low, subconcentric asperities, with a few short, fine hairs ; posterior portion subglabrous, finely, moderately sparsely punctured, with interstices reticulate, median line impunctate on basal third.

Elytra notably wider than pronotum and 1.31 times as long, 1.18 times as long as wide ; bases slightly sinuate, margined ; sides nearly straight and subparallel on anterior two-thirds, very broadly rounded behind ; dorsal contour arcuate from base, much more strongly behind middle; surface shining, piceous-black; striae weakly, first and sec-

ond more strongly impressed, punctures very close, of moderate size; interspaces wide, nearly flat, strongly uniseriately punctured, the punctures being similar in size to those of striae but not so closely placed, surface more roughened and subgranulate behind middle ; declivity strongly convex; vestiture of erect, yellow-cinereous bristlelike hairs, moderately abundant throughout but especially so on declivity.

Male. — Similar to female in general habitus, with frons concave,

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shining, finely, closely punctured, with conspicuous fine hairs of moderate length.

Type locality .—\jx Esperanza, Colombia,

Ho fit. — Inga.

Type material. — Holotype and 2 paratypes, U.S.N.M. No. 56561.

The short type series was collected September 8, 1935, from Inga^ by R. P. Roba.

PRIONOSCELES SPADIX, new species

Light reddish brown; 1.97 mm. long, 2.22 times as long as wide;
allied to *Prionosceles atratus* Blandford and *P. maurus* Blandford.

Frons strongly convex above, transversely impressed between antennae ; surface shining, moderately punctured, with a few small, inconspicuous hairs ; epistomal margin thickened, with conspicuous, yellow hairs in median third. Eye elongate, narrow, facets rather small, inner line entire.

Pronotum as wide as long, slightly widest at middle ; posterior outline bisinuate, finely margined toward sides, posterior angles strongly rounded; sides finely margined on posterior three-fifths, very feebly arcuate, very broadly rounded in front; surface moderately shining, glabrous, punctate-asperate throughout, much more strongly in anterior third ; median line not elevated, punctured.

Elytra very slightly wider than pronotum and 1.23 times as long, 1.19 times as long as wide; bases sinuate, distinctly margined; sides nearly straight and subparallel on anterior five-eighths, then broadly arcuate; surface shining, spadiceous; dorsal contour convex throughout, more strongly on posterior half; striae impressed, the first very strongly impressed, punctures close and moderate in size; interspaces somewhat convex, first interspace narrow on basal fifth and apical two-fifths, other interspaces wide on disk and side, somewhat narrowed on declivity, discal interspaces with fine punctures, becoming uniseriate behind, uniseriately granulate on declivity ; anterior half subglabrous, posterior half with fine, short, erect hairs.

Type locality. — Guatemala.

Host. — ^Mahogany (hybrid?).

Type material:~E.o\oiy\)Q, U.S.N.M. No. 56562.

The holotype was taken May 26, 1941, from hybrid (?) mahogany intercepted at quarantine. New York (89860) , from Guatemala.

Genus PHLOEOTRIBUS Latreille

The complex of species of the tribe Phloeotribini characterized by having the joints of the antennal club varying from loosely articulated to flabellate have been separated into several genera. The ones we are concerned with at present are Phloeotribus Latreille, Phleoph-

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thorns Wollaston, and Phthorophloeus Key. These, as characterized, seem sufficiently different to be considered as distinct genera, and when the genotypes are compared the same is true. However, when the group as a whole is studied, it is found that there are no sharp lines of demarcation between the species groups. Many species cannot be definitely placed in any of the three categories but possess certain characters of one group and certain other characters of other groups. It would seem that the tribe is still undergoing active evolu-

tion and that the species groups present such an unusual intergradation of characters that it seems wise to treat them as a single genus under the oldest generic name, *Phloeotribus*.

Of the five new South American species described in the following pages the first two (*Phloeotribus manni* and *P. argentinae*) belong unmistakably to *Phloeotribus* s. str. Of the other three, *P. holiviae* and *P. harringtoni* cannot be placed definitely in either *Phloeotribus* s. str. or *Phthorophloeus* Rey, as they have some characters of each group. *P. jujuya* agrees with *Phthorophloeus* in some respects and with *Phloeophthoims* Wollaston in others.

PHLOEOTRIBUS MANNI, new species

Plate 17, Figures 26, 27

Female. — Pronotum piceous-black, opaque; elytra reddish brown, opaque; 3.11 mm. long, 1.53 times as long as wide.

Frontal rectangle 1.09 times as long (including epistomal lobe) as wide; frons (fig. 27) convex above, impressed between eyes above the usual transverse, arcuate impression between bases of antennae, transversely impressed on epistoma; surface piceous-brown, closely, rather coarsely punctate, with fine, short, appressed hairs; epistomal margin thickened and liplike, with a large epistomal lobe twice as wide as long, reddish yellow in color with its distal end shallowly emarginate, arising from its posterior distal surface. Eye slightly less than three times as long as wide, wider above middle, with lower half tapering

to a very sharp angle. Antennal scape bright reddish brown, slightly longer than club, which is darker and subopaque.

Pronotum 1.19 times as wide as long, widest at base, posterior outline extended in median area, posterior angles scarcely rounded, sides and front margin together nearly evenly semicircular; surface opaque, rather coarsely, densely, moderately shallowly punctured, posterior median area scarcely granulate, anterior area scabrous, sides with broad, low asperities larger and higher at anterior angles; vestiture of fine, short hairs, with a few larger, stouter hairs intermixed at sides and in front.

Elytra wider than pronotum and 1.40 times as long, very broad, 1.03 times as long as wide ; anterior margins arcuate, strongly crenu-

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Lite; sides subparallel on about anterior half, very broadly rounded behind; surface opaque; striae narrow, strongly impressed, punctures small, shallow, closely placed ; interspaces several times as wide as striae, flat anteriorly, convex on declivity, becoming narrower posteriorly, rugose, with irregularly arranged, lunate asperities anteriorly, becoming uniseriate behind ; vestiture of small, short hairs on sides and declivity.

The male is unknown.

Type locality. — Rio Madeira, Brazil.

Additional locality. — Rio Beni, Bolivia.

Host. — Unknown.

Type material. — Holotype and 1 paratype, U. S. N. M. No. 565G3.

The type was collected by W. M. Mann in 1933 at Rio Madeira,
Brazil ; paratype by W. M. Mann, Rio Beni, Bolivia.

PHLOEOTRIBUS ARGENTINAE, new species

Plate 17, Figures 28-30

Female. — Piceous-black, with anterior margin of pronotum, antennae, and parts of the legs reddish brown ; 2.63 mm. long, 1.69 times as long as wide.

Frons (fig. 30) convex above, frontal rectangle 0.92 as long as wide, transversely impressed just above epistomal margin and also between the eyes, with impressions separated by a transverse, slightly arcuate elevation between the bases of antennae, surface subopaque, reticulate, with rather small, shallow punctures; epistomal margin thickened, liplike, extended in median line. Antenna reddish brown, arising from frons one-third of distance between eye and median line ; scape long, slender, with a few short hairs; club nearly as long as

scape, with rather long, slender lamellae. Eye elliptical, 3.3 times as long as wide, inner margin entire, facets moderate.

Pronotum 1.26 times as wide as long, widest near base, posterior outline strongly bisinuate, posterior angles rounded, sides and front margin evenly subsemicircularly rounded, anterior margin serrate at each side, with median serrations obsolescent ; surface opaque, rugose-asperate in front and at sides, median third of posterior disk subgranulate, with large but very shallow, very indistinct, obsolescent punctures; hairs scanty and very inconspicuous, more numerous at sides.

Elytra wider than pronotum and 1.62 times as long, 1.18 times as long as wide ; anterior margins arcuate, elevated and crenulate ; sides nearly straight and feebly converging on anterior two-thirds, moderately rounded behind; surface convex from base to apex, moderately shining, piceous except near anterior margin; striae deeply impressed, punctures small, indistinct; interspaces two or more times as wide

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NEW AMERICAX SCOLYTOID BEETLES — BLACKMAN 387

as striae, nearly flat, lunately asperate anteriorly, becoming uniseriately granulate behind ; vestiture on anterior half scanty, sparse and fine, with coarser, longer, yellow setae on posterior half and on sides, becoming more conspicuous on declivity,

Male. — Similar to female in general habitus; frons (fig. 29) concavely impressed, below with a well developed, erect epistomal process arising just above the epistomal margin and having the free end squarely truncate, the sides feebly converging; antennal scape with dense fringe of long yellowish hairs ; pronotum with anterior margin equally serrate at center and sides ; elytral setae more conspicuous.

Type locality. — El Quemado, Argentina.

Additional locality. — Salta, Argentina.

Host. — Unknown.

Type material. — Holotype, allotype, and 41 paratypes, U. S. N. M. No. 56564.

The type series was collected by G. L. Harrington in 1927-28 in northern Argentina, in the provinces of Jujuy and Salta.

PHLOEOTRIBUS BOLIVIAE, new species

Plate 17, Figures 31, 32

Female. — Head piceous, pronotum very dark reddish brown, elytra reddish brown ; 2.17 mm. long, 1.92 times as long as wide.

Frons (fig. 32) convex above, frontal rectangle 0.94 as long as wide, transversely elevated between bases of antennae, surface sub-

shining, reticulate, sparsely, shallowly punctate, with a short, fine, median sulcus just above transverse elevation; below transversely rather broadly impressed on epistoma, with punctures rougher, coarser, and deeper than above ; epistomal margin thickened, liplike ; piceous above, reddish brown in epistomal impression. Antenna arising from side of frons one-third of distance between eye and median lines, scape and funicle reddish brown, club piceous, about as long as scape. Eye elongate elliptical, not emarginate, facets moderate.

Pronotum 1.25 times as wide as long, widest near base, posterior outline extended in median area, posterior angles rounded, sides strongly arcuate, slightly constricted behind the very broadly rounded front margin, which is without serrations in median area but with small serrations at each side ; surface shining, rugose-asperate in front and at sides, with sparse, semierect hairs, rugose-granulate and shallowly punctate in posterior median portion with fine, short hairs.

Elytra wider than pronotum and 1.80 times as long, 1.31 times as long as wide; anterior margins arcuate, elevated and crenulate, sides nearly straight and feebly diverging, moderately rounded behind,

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with small serrations ; surface shining ; striae deep, with rather close, shallow punctures of moderate size; interspaces slightly wider than

striae, rugose-asperate, asperities becoming uniseriate posteriorly, hairs stout, erect; declivity with striae and interspaces subequal in width, with hairs as on disk and sides; posterior rim margined and serrate.

Male. — Similar to female in habitus; frons concave below, with epistomal margin narrowly elevated, surface partly concealed by moderate, yellow hairs, transverse elevation between bases of antennae divided in median line by a longitudinal sulcus extending dorsad into a secondary concavity, with moderately long and coarse yellow setae arising from each side and directed toward median line; above secondary concavity with a rather low, hill-like elevation; frontal rectangle 1.14 times as long as wide; antenna arising from nearly halfway between eye and median line; scape with dense brush of long yellow hairs.

Type locality. — Mapiri, Bolivia.

Hoat. — Unknown.

Type material. — Holotype, allotype, and 1 paratype, U. S. N. M. No. 56565.

The type series was taken by G. L. Harrington in September 1925 at Mapiri, Department of La Paz, Bolivia.

PHLOEOTRIBUS HARRINGTONI, new species

Plate 17, Figures 33, 34

Female. — Piceous-brown, with antennae and legs lighter; 2.31 mm.

long, 2.33 times as long as wide.

Frontal rectangle 0.83 as long as wide, including epistomal lobe, which is longer than wide ; frons (fig, 34) convex above, transversely impressed on epistoma, elevated between bases of antennae, indefinitely impressed above; surface piceous-brown, subshining, moderately punctured, with moderately short, semierect, cinereous hairs.

Eye more than three times as long as wide, with outline fusiform.

Antenna inserted at side very near eye ; scape and funicle light reddish brown, club darker, with segments more than three times as wide as long.

Pronotum 1.17 times as wide as long, widest near base, posterior outline bisinuate, scarcely extended in median area, posterior angles rounded, sides convergently arcuate to the constriction just behind the broadly rounded anterior margin, which is devoid of serrations; surface moderately shining; median area with close, rather shallow, moderately large punctures, with a few small granules only on anterior third, sides with low, broad asperities distributed from behind the front margin nearly to base ; vestiture of rather stout, moderate-

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ly long, semierect, yellow setae, at sides directed caudad, setae finer and directed mesad on disk.

Elytra wider than pronotum and 1.82 times as long, 1.31 times as long as wide; anterior margins arcuate, crenulate, with a secondary row of lunate asperities behind and parallel to it, and a few additional, scattered asperities behind this; sides straight and subparallel on anterior two-thirds, rather narrowly rounded behind, with posterior margins serrate; surface somewhat shining; striae wide and deep, with coarse, close punctures ; interspaces usually narrower than striae, rugose, with low, wide, lunate, approximately uniseriate asperities; vestiture of rather stout, suberect setae, approximately uniseriate on disk and sides except in sutural interspaces. Declivity arched, arising from well behind middle; striae deeper than on disk and similarly punctured ; interspaces narrower, strongly convex, some of asperities reduced to granules, others elevated to form sharp, conical teeth on interspaces 3, 5, 7, and 9; setae larger and more numerous than on disk.

Male. — Similar to female, but with frons concave from above level of eyes to epistomal margin, interantennal elevation incomplete in median third; antenna similar to that of female but with longer, more numerous hairs on scape.

Type locality. — Aguaray and Tartegal, Argentina.

Host. — Unknown.

Type material. — Holotype, allotype, and 8 paratypes, U.S.N.M. No. 56566.

The type series was collected by G. L. Harrington on October 19-21, 1920.

PHLOEOTRIBUS JUJUYA, new species

Plate 17, Figures 35, 36

Female. — Reddish brown, with head piceous-brown ; 2.53 mm. long, 2.16 times as long as wide.

Frontal rectangle 0.71 as long as wide, including epistomal lobe, which is longer than wide ; frons (fig. 36) convex above, reddish, closely, moderately coarsely punctured ; transversely impressed below ; elevated between antennal bases, transversely flattened above, median line with a carinal elevation which in turn has a median sulcus ; vestiture short, fine, and sparse. Eye elongate elliptical. Antenna inserted at side near eye; scape and funicle light reddish brown, club darker, with segments less than twice as wide as long.

Pronotum 1.17 times as wide as long, widest at base, posterior outline scarcely sinuate, not at all extended posteriorly, posterior angle scarcely rounded; sides convergently arcuate, with little evidence of anterior constriction, anterior margin very broadly rounded, subsinuate in me-

dian area, margin without serrations; surface moderately shining, median area with moderate close, very shallow punctures, interstices reticulate, appearing subgranulate; median line impunctate, extending slightly past middle, somewhat elevated anteriorly; sides with very low, broad, small asperities becoming granulate near base; vestiture of scanty, fine, appressed hairs.

Elytra wider than pronotum and 1.90 times as long, 1.39 times as long as wide; anterior margins rather weakly arcuate, crenulate, with scattered, lunate asperities posterior to it; sides nearly straight and subparallel on less than anterior two-thirds, rather narrowly rounded behind, with margins serrate; surface shining; striae wide and deep, with coarse, close, transverse punctures; interspaces variable, but not wider than striae, rugose-granulate, with granules coarse and uniseriate posteriorly; vestiture of small, semierect, inconspicuous hairs on disk, sides, and declivity; declivital granules coarser on interspaces.

Mde. — ^Unknown.

Type locality. — Santa Clara, Jujuy, Argentina.

Host. — Unknown.

Type material. — Holotype, U.S.N.M. No. 56567.

The holotype was collected by G. L. Harrington on September 23, 1921.

Genus RENOCIS Casey

RENOCIS CHAPINI, new species

F&male. — Reddish brown, with light cinereous scales and setae; 1.58 mm. long, 1.90 times as long as wide; allied to *Reiwe's hrazUensis* Blackman and *R. insulans* Blackman, but slightly slenderer than either.

Frons with epistomal margin without visible tooth in median line, fringed with fine yellowish setae ; broadly, shallowly impressed above epistoma, shining, finely punctured below, convex above, subopaque, finely reticulate, finely punctate, with short cinereous hairs and divided scales. Eye about three times as long as wide, finely faceted; inner outline scarcely emarginate. Antenna with scape, 5-segmented funicle, and club nearly equal in length; club 1.53 times as long as wide, ovate, with distal end subacuminate, sutures setose and weakly, annularly impressed.

Pronotum 1.36 times as wide as long, widest near base, basal margin bisinuate, sides strongly arcuate from base to weak constriction just behind the very broadly rounded front margin, which bears a few longer setae; surface reddish brown, weakly shining, finely, closely punctured, finely reticulate, subgranulate; each side with a few very small asperities, variable in number and scarcely visible ; surface partly

concealed by numerous small, cinereous scales, often bifurcate, many of those near base nearly white.

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NEW AMERICAN SCOLYTOID BEETLES — BLACKMAN 391

Elytra wider than pronotum and 1.92 times as long, 1.31 times as long as wide ; sides subparallel on anterior two-thirds, rather broadly rounded behind; basal margins from suture to fifth interspace with 7 crenulations on each elytron, in a continuous line ; striae impressed, much stronger behind, punctures moderately large, close ; interspaces wider, moderately convex, with numerous fine punctures bearing small, subcircular, appressed scales, with a median row of larger punctures bearing larger, narrower, erect scales in each interspace; scales varying in color from nearly white to testaceous, but not forming a color pattern. Declivity evenly arched, not modified, scales slightly longer and more erect than on disk.

The male is unknown.

Type locality. — Ocho Rios, Jamaica.

Host. — Unknown.

Type material—Holotype and 1 paratype, U. S. N. M. No. 56568.

The two specimens comprising the type series were taken, flying at dusk, on February 2, 1937, near Ocho Rios, Jamaica, by E. A. Chapin and R. E. Blackwelder.

Genus *CHRAMESUS* LeConte

CHRAMESUS PANAMENSIS, new species

Female. — Dark reddish brown to piceous, opaque, with yellow-cinereous bristles and scales; 1.43 mm. long, 1.70 times as long as wide; allied to *hicatoriae* LeConte and *asjyeratus* Schaeffer, but smaller than either of these.

Frons convex above, flattened below, with epistomal lobe nearly as long as wide arising from the liplike epistomal margin; frontal rectangle (including lobe) 1.16 times as long as wide; surface opaque to subopaque, reticulate, very finely granulate, with minute punctures bearing short, moderately stout, dorsally directed hairs. Antenna arising from side near eye, similar in general to that of *hicatoriae*. Eye rather large, facets moderately large, inner line entire.

Pronotum 1.24 times as wide as long, posterior outline bisinuate, moderately produced in median line; sides strongly arcuately convergent, broadly rounded in front; feebly, transversely impressed just behind front margin; surface opaque, reticulate, finely granulate-punctate in median area, lateral areas with low, broad asperities parallel to lateral outlines and extending to base; entire surface with rather sparse, flattened, cinereous setae directed posteromesad on disk.

Elytra wider than pronotum and 1.50 times as long, 1.12 times as long as wide ; bases arcuate, elevated, and serrate ; sides feebly arcuate, broadly rounded behind; dorsal contour obliquely arcuate from base to apex ; surface opaque to subopaque ; striae impressed, with shallow, moderate-sized punctures ; interspaces much wider than striae at base,

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slightly wider midway, convex, uniseriately granulate, with a median row of erect, stout, yellowish-cinereous setae, with numerous much smaller, scalelike setae on sides of each interspace and between the larger setae ; declivity without special modifications.

Male. — Similar to female in habitus but with frons strongly concave, bordered at each side by a sharp, elevated ridge.

Type locality. — Panama Canal Zone.

Host. — Unknown.

Type material. — Holotype, allotype, and 5 paratypes, U. S. N. M.

No. 56569.

The type series was collected by E. A. Schwarz in February and

March 1911.

Genus PHRIXOSOMA Blandford

PHRIXOSOMA MAGNA, new species

Plate 17, Figures 37-40

Piceous-brown, with elytra lighter brown ; 3.91 mm. long, 1.93 times as long as wide; larger and much stouter than Phrixosoma rude Blandford.

Frons (fig. 38) convex, opaque, densely, finely granulate throughout, with fine median carina on lower half, somewhat flattened at each side; vestiture of fine, rather short, dense, yellowish hairs which are inconspicuous except in profile. Eye divided, the parts entirely separated (fig. 39) by a broad area having the texture and vestiture of the frons; facets of moderate size. Antenna (fig. 40) with scape long, slender, 2.46 times as long as 6-segmented funicle, club longer than funicle, 1.28 times as long as wide, pubescent, with 3 nearly straight sutures, marked by rows of longer setae, only the first suture partly septate.

Pronotum 1.35 times as wide as long, widest behind middle; posterior outline bisinuate, feebly margined toward sides, posterior lateral angles broadly rounded, sides not margined, very strongly arcuate, very broadly rounded in front, surface opaque, finely, densely granulate, with fine, short hairs ; median line narrowly elevated on less than posterior half.

Elytra wider than pronotum and 2.06 times as long, 1.33 times as long as wide; bases margined and slightly elevated, finely granulate-crenate; sides weakly arcuate on anterior two-thirds, more strongly behind, apex rather narrowly rounded; surface opaque, cinnamon brown, inf umated with piceous brown on humerus ; striae deeply impressed, narrow, punctures small and moderately spaced ; interspaces broad, weakly convex, densely, finely granulate, with fine, short, silky, cinereous hairs, similar on disk, sides, and declivity.

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The locality. — Bolivia, South America.

Host. — Unknown.

Type material. — Holotype and 4 paratypes, U. S. N. M. No. 56570.

The type series was collected by G. L. Harrington in the Departments of Beni and La Paz, Bolivia, in August and September 1925.

PHRIXOSOMA OBESA, new species

Dark cinnamon-brown with elytra lighter, 2.36 mm. long, 1.86 times as long as wide; smaller and slightly stouter than *Phrixosoma magna*, new species.

Frons convex, surface opaque, densely, finely granulate, with very fine, indistinct median carina on lower half, transversely impressed above epistomal margin; vestiture fine, short, inconspicuous except in profile, slightly longer on epistoma. Eye entirely divided into two parts, separated by a broad area having the texture and vestiture of the frons ; facets rather small. Antenna apparently similar to that of magna., new species (no balsam mounts available).

Pronotum 1.26 times as wide as long, widest at base ; posterior outline bisinuate, submargined toward sides, posterior lateral angles sharp ; sides arcuately narrowed from base to broadly rounded front margin; surface subopaque, finely, densely granulate-punctate, with fine, short hairs, conspicuous only with proper lighting; median line narrow, elevated, shining, and impunctate, evident only on posterior third.

Elytra wider than pronotum and 1.84 times as long, 1.31 times as long as wide; bases submargined, granulate; sides nearly straight, very feebly arcuate on anterior two-thirds, apex moderately rounded ; surface opaque, cinnamon-brown; striae narrow, deeply impressed, punctures small, indistinct, close; interspaces wide, nearly flat on disk, convex behind, finely, closely granulate, with fine, rather short, silky, yellow-cinereous hairs, similar throughout.

Type locality. — Gatun, Panama Canal Zone.

Host. — Unknown.

Type material— Holotype, U. S. N. M. No. 56572.

The holotype was taken by E. A. Schwarz on April 7, 1911.

PHRIXOSOMA PARVA, new species

Piceous-brown, subopaque, with elytra slightly lighter, 2.10 mm.

long, 2.16 times as long as wide.

Frons convex, surface opaque, densely, finely granulated, with very fine, indistinct median carina on lower half, epistoma slightly impressed at each side; vestiture short, fine, inconspicuous, longer on epistoma. Eye bipartite, the smaller upper portion entirely sepa-

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rated from the lower portion by a broad area similar in texture and vestiture to the frons. Antennae similar to those of other species.

Pronotum 1.14 times as wide as long, widest at base, posterior outline bisinuate, submargined toward sides, posterior lateral angles not rounded; sides without beaded margin, weakly convergently arcuate on posterior half, constricted before middle, broadly rounded in front; surface subopaque, finely, densely granulate-punctate, with rather short, fine hairs, inconspicuous except with proper lighting;

median line narrow, slightly elevated, on posterior two-fifths.

Elytra only slightly wider than pronotum and 1.87 times as long, 1.51 times as long as wide; bases feebly arcuate, margins scarcely elevated; sides nearly straight, feebly converging on anterior two-thirds, narrowly rounded behind ; surface subopaque, striae moderate in width, impressed, punctures small, moderately spaced ; interspaces nearly twice as wide as striae, nearly flat on disk, somewhat convex behind, finely, closely granulate-punctate, with fine, moderately short, silky hairs throughout; declivity rather sloping.

Type locality. — Cayamas, Cuba.

Host. — Unknown.

Type material. — Holotype and 1 paratype, U. S. N. M. No. 56571.

The type material was collected by E. K. Schwarz on February 14.

Genus *LEPERISINUS* Reitter

LEPERISINUS HOFERI. new species

Female. — Reddish brown to piceous, with anterior borders of pronotum and elytra lighter; 2.6-3.5 mm. long, holotype 3.43 mm. long, 1.9 times as long as wide; allied to *californicus* Swaine and *imperialis* Eichhoff.

Frons broadly, moderately deeply concave, surface reticulate, sub-

shining, sides finely, rather closely punctate, subgranulate, more distinctly granulate-punctate above, median area below with very few, very fine punctures, bearing few hairs, sides and upper frons with light, sordid-yellow[^], appressed, moderately long hairs directed meso-dorsad; frontal rectangle 0.54 as long as wide, very wide between eyes, epistomal lobe very low and wide, with epistomal margin ventrad of it broadly emarginate. Eye elongate oval, margin entire, facets moderately coarse. Antennal club elongate oval, compressed, with silky pubescence and a few longer hairs ; first two sutures transverse, third obliquely arcuate.

Pronotum 1.34 times as wide as long, widest slightly before base ; posterior outline bisinuate, somewhat produced in median line; posterior lateral margins rounded, sides strongly, convergently arcuate,

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constricted anteriorly, anterior margin very broadly rounded, scarcely impressed posterior to it; surface shining but mostly concealed by scales, punctures dense but very shallow, interstices variably granulate in median area ; lateral areas with rather numerous, coarse asperities arranged as a submarginal row in front and extending to base and across anterior disk, smaller behind and in anterior median area; color markings produced by scales of two colors — dark-brown scales in a nearly regular, diamond-shaped median area and an ir-

regular area at each side of disk, and at each side two light areas formed by light-yellow cinereous scales, one at extreme sides and one between the median and lateral dark areas.

Elytra wider than pronotum and 2.07 times as long, 1.35 times as long as wide; bases arcuate, elevated, and serrate; sides subparallel on anterior half, then gradually narrowed to the narrowly rounded apex; dorsal contour oblique, arcuate from middle to apex; surface shining, but almost entirely hidden by scales and hairs of two colors; striae impressed, punctures small and indistinct; interspaces wide, nearly flat on disk, more or less convex behind, granulate-punctate with larger granules or asperities, densely clothed with scales varying from subcircular to slender and with a few hairs, with hairs or slender scales forming the middle row in each interspace on sides and on anterior part of disk, these replaced on posterior half by erect or semierect, broad scales which exaggerate the convexity of the posterior part of most interspaces. Declivity sloping, suture decidedly convex, second interspace narrow, flat, appearing depressed, third interspace broad, convex, the others slightly convex. Color pattern of elytra formed by arrangement of dark-brown scales and hairs and yellow-cinereous scales and hairs as follows: A dark band at base, then a wider, irregular, light band, next an irregular dark band, incomplete at sides, followed by a light, irregular, oblique band, and finally an irregular dark spot involving interspaces 2 and 3 ; posterior border and sides prevailing light.

Male. — Similar to female in habitus; frons flattened from eye to eye, reticulate, subshining, finely punctate, with hair as in female;

median carina short, blunt, shining, midway between epistomal margin and upper level of eye.

Type locality. — Sabino Canyon, Ariz.

Host. — *Fraximis* sp.

Type material. — Holotype, allotype, and 19 paratypes, U. S. N. M. No. 56573.

Holotype, allotype, and 12 paratypes taken from felled ash trap tree, at Sabino Canyon, Ariz., May 20, 1918, by George Hofer, 7 paratypes taken from *Fraocinus* sp. at Meek, N. Mex., by W. F. Fiske.

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LEPERISINUS OREGONUS. new species

Female. — Piceous-brown, with elytra and anterior border of pronotum lighter; 2.8-3.3 mm. long, holotype 3.00 mm. long, 1.91 times as long as wide ; allied to *californicus* Swaine and *hoferi*, new species, and intermediate in size between the two,

Frons very wide between eyes, frontal rectangle 0.61 as long as wide; broadly, rather deeply concave, more strongly above; surface

shining except where hidden by vestiture, faintly reticulate, moderately closely, finely punctate at sides, subgranulate-punctate above, median eighth between eyes with few or no punctures ; sides and upper frons with rather coarse, moderately long, cinereous hairs, directed mesodorsad; epistomal lobe inconspicuous. Eye less elongate than in californicus and hoferi, facets moderately coarse. Antennal club 1.7 times as long as wide, somewhat compressed, first 2 sutures transverse, third suture slightly arcuate and oblique.

Pronotum 1.41 times as wide as long, widest at base; posterior outline bisinuate; posterior lateral angles not rounded, sides arcuate and convergent, slightly constricted just behind the very broadly rounded anterior margin; surface almost entirely concealed by scales but shining where visible, median area punctate-granulate, lateral areas with asperities smaller than in californicus and much smaller than in hoferi[^] replaced by granules near base; color markings similar to those of its allies.

Elytra wider than pronotum and 2.14 times as long, 1.38 times as long as wide; bases arcuate and serrate, sides subparallel on anterior half, then gradually narrowed, moderately rounded behind (more broadly rounded than in hofen) ; dorsal contour nearly straight on more than anterior half, declivity weakly arcuate; surface almost entirely hidden by scales and hairs; striae impressed, narrow, nearly concealed by scales from interspaces, punctures small and inconspicuous; interspaces wide, nearly flat, finely granulate-punctate, asperities much smaller than in californicus[^] hoferi, etc., not notably larger on posterior half; vestiture of scales and hairs, of which the former are much more numerous; middle row of vestiture in each interspace on sides

and on anterior half of disk consisting of semierect hairs or slender scales, middle rows on first 3 interspaces of the declivity of large, erect scales, very broad on distal two-thirds ; color pattern formed of yellow scales and hairs and brown scales and hairs similar in general to that of its allies.

Male. — Similar to female in habitus, frons not so deeply concave and with a distinct transverse elevation (carina) between bases of antennae, and extending dorsad from this an elevated median carina ; surface not so finely punctured, with slightly sparser hairs ; pronotal

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and elytral asperities coarser and yellow scales more numerous than in female ; elytral interspaces with larger asperities than in female.

Type locality. — Forest Grove, Oreg.

Additional localities.— Cow al\\s^ Portland, St. Helens, Oreg.

Host. — *Fraxinus oregonum* Nuttall.

Type material. — Holotype, allotype, and 25 paratypes, U.S.N.M. No. 50574.

The holotype, allotype, and 5 paratypes were taken from Oregon ash at Forest Grove, Oreg., by M. C. Lane, January 8, 1919 ; 11 paratypes, Corvallis, Oreg., 1931; 7 paratypes taken at Portland, Oreg.. August 31, 1926, by C. E. Wood; 2 paratypes, St. Helens, Oreg., from FraxiTVUs, by A. D. Hopkins.

Genus PHLOEOSINUS Chapuis

PHLOEOSINUS BLACKWELDERI, new species

Male. — Black, with elytra reddish brown ; 2.97 mm. long, 2.10 times as long as wide ; closely allied to nitidus Swaine and cupressi Hopkins.

Frons rather wide between eyes, frontal rectangle about 0.63 as long as wide; epistomal lobe very short; surface piceous, finely, densely granulate-punctate at sides, deeply, closely punctate above (more so than in nitidus)., median area shining, concave between eyes (less deeply than in nitidus), not extending to epistoma, which is very finely granulate-punctate; median carina short and not conspicuous; hairs short. Eye more than 3 times as long as wide, more than half divided by an emargination. Antenna with club nearly twice as long as wide, sutures oblique.

Pronotum 1.10 times as wide as long, widest at base; sides regularly, convergently arcuate, without constriction, broadly rounded in front ; surface brightly shining, piceous-black, closely, deeply punctured on disk, more finely and densely near anterior margin, sides subgranulate-punctate; lateral calli distinct; hairs fine and short (shorter than in nitidus) over most of pronotum, with longer hairs anterolaterad

of calli.

Eh'tra wider than pronotum and 1.63 times as long, 1.34 times as long as wide, widest behind middle ; sides slightly sinuate, subparallel, very broadly rounded behind ; surface shining, striae sinuate, deeply impressed, punctures large, close, shallow ; interspaces on disk rugose-granulate, convex, with very fine punctures, much wider than striae near base, about equal in width to striae on most of disk, granules confused anteriorly, becoming uniseriate posteriorly; sides with striae and interspaces about equally wide, interspaces less strongly rugose and granulate ; hairs short and fine, not abundant. Declivity abrupt, of the nitidus-cupressi type, with coarse, black serrations ; first inter-

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space with several (three in type) coarse, black serrations only at summit of declivity, with apical three-fourths flat, shining, moderately, rather roughly punctured; second interspace obliterated in middle half of declivity but widened into an angular area near apex ; third interspace elevated, with 8-10 coarse, stout, blunt, black serrations (coarser and much blunter than in nitidus) ; fifth, seventh, and ninth interspaces each with a few smaller serrations; hairs slightly longer than on disk.

Female.— Similar to male but averaging somewhat larger; frons

wider between eyes, frontal rectangle 0.62 as long as wide; convex, densely granulate-punctate, median carina variably, often feebly developed on lower half; pronotum with lateral calli less developed; elytral declivity similar to that of *nitidus* but with the serrations much smaller; with numerous scales on first to fourth interspaces.

Type locality. — Ciricito, Panama Canal Zone.

Host. — Unknown.

Type material.— Holotype, and 14 paratypes, U. S. N. M. No. 56576.

The type series was taken March 4, 1930, by R. E. Blackwelder, as the specimens alighted upon the trunk of an unknown felled tree at Ciricito, Canal Zone.

CARPHOBIUS, new genus

Body subcylindrical, moderately stout, ornamented with hairs; frons convex above, flattened below; eye weakly emarginate, finely faceted; antennal club connate, with impressed, setigerous sutures, partly septate, funicle 6-segmented; pronotum wider than long, with posterior outline bisinuate as in *Phloeosinus* Chapuis, fore coxae moderately widely separated, third tarsal joint bilobed; elytra with anterior margins arcuate, serrate, striae scarcely impressed, interspaces with moderate hairs; declivity moderately sulcate, first interspace somewhat elevated, third interspace more strongly elevated, granulate-dentate in male.

Genotype, *Carphohius arisonicus*, new species.

CARPHOBIUS ARIZONICUS, new species

Plate 17, Figures 41-45

Female. — Piceous-brown ; 1.79 mm. long, 2.23 times as long as wide.

Frons (fig. 43) convex above, somewhat flattened, feebly subconcave below, finely, moderately closely, subgranulately punctured, with fine hairs of moderate length. Eye with inner outline broadly, shallowly emarginate; facets fine. Antenna (fig. 45) with scape club-shaped,

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as long as club ; funicle very slightly shorter, 6-segmented, with distal segment much wider than others; club 1.44 times as long as wide, widest through second segment ; first two sutures incompletely septate, very strongly annulately constricted, and further marked by rather long, conspicuous hairs, third suture marked by setae.

Pronotum 1.18 times as wide as long, widest near base, ^Dosterior angles somewhat rounded, posterior outline bisinuate as in *Phloeosinus* spp., sides feebly, convergently arcuate on posterior half, dis-

tinctly constricted in front of middle, very broadly rounded in front ; surface piceous brown, shining, impressed across dorsum behind anterior margin, deeply, rather closely, moderately finely punctured on most of disk, more finely and densely in front, finely subgranulate-punctate at sides, median line not elevated, punctured as on rest of disk ; vestiture of hairs of moderate size.

Elytra wider than pronotum and 1.86 times as long, 1.43 times as long as wide; anterior margins arcuate, elevated and serrate as in *Phloeosinus* spp.; sides subparallel on anterior two-thirds, broadly rounded behind; surface subshining, piceous brown; striae slightly impressed, punctures close, moderate in size; interspaces wider than striae, rugulose, feebly granulate, with many fine punctures and rather numerous, rather small hairs, granules reduced posteriorly. Declivity sloping, first and third interspaces elevated, finely punctured, not granulate, first stria impressed, distinctly punctured, second stria not impressed, punctures smaller than on disk; intervening second interspace flat, finely punctured; all of interspaces with numerous rather small hairs.

Male. — Slightly stouter than female but similar in general habitus; frons (fig. 44) more coarsely sculptured, distinctly but not strongly concave between eyes; elytral declivity with first interspace more weakly elevated than in female, third interspace more strongly elevated and with several tubercles, the two most posterior ones tooth-like, with their apices sharp.

Type locality. — Huachuca Mountains, Ariz.

Host. — Unknown.

Type material. — Holotype, allotype, and 3 paratypes, U.S.N.M. No. 56575.

The type series, consisting of 4 females and 1 male, was collected in Miller Canyon, Huachuca Mountains, Ariz., August 27, 1907, by H. A. Kaeber.

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PROCEEDINGS, VOL. 94 PLATE 15

New Species of *Cnesinus*.

1. 2, *C. cubensis*, dorsal (1) and frontal (2) views,; 3, 4, *C. panamensis*, dorsal (3) and frontal

(4) views; 5, *C. robai*, frontal view; 6, *C. cognatus*, frontal view; 7, 8, *C. similis*, dorsal (7)

and frontal (8) views; 9-11, *C. fowatus*, dorsal (9) and frontal (10) views and sketch of

side of pronotum showing fovea (11); 12, 13, *C. nitidus*, dorsal (12) and frontal (13) views.

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PROCEEDINGS. VOL. 94 PLATE 16

NEW SPECIES OF CAMPTOCERUS AND HEXACOLUS.

14-17, *Camptocerus quadridens*, dorsal (14) and frontal (15) views, antenna (16), and foretibia and tarsus (17); 18, 19, *C. boliviae*, dorsal (18) and frontal (19) views; 20-24, *Hexacolus stvieleniae*, dorsal view (20), antenna (21), foretibia (22), frontal view of male (23), and frontal view of female (24); 25, *H. levis*, dorsal view.

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PROCEEDINGS. VOL. 94 PLATE 17

New Species of *Phloeotribus*, *phrixosoma*, and *Carphobius*.

26, 27, *Phloeotribus nianni*, dorsal (26) and frontal (27) views; 28-30, *P. argentinae*, dorsal view (28), frontal view of male (29), and frontal view of female (30); 31, 32, *P. holiviae*, dorsal (31) and frontal (32) views; 33, 34, *P. karringtoni*, dorsal (33) and frontal (34) views; 35, 36, *P. jujuya*, dorsal (35) and frontal (36) views; 37-40, *Phrixosoma magna*, dorsal (37) and frontal (38) views, lateral view of head (39), and antenna (40); 41-45, *Carphobius arizonicus*, dorsal views of female (41) and male (42), frontal views of female (43) and male (44), and antenna (45).

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