

NEW SPECIES OF BARK BEETLES
(COLEOPTERA: SCOLYTIDAE), MOSTLY MEXICAN
PART VI.

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On the following pages nineteen neotropical species of scolytid beetles belonging to the genera *Scolytopsis* (1), *Loganius* (10), *Hexacolus* (4), *Prionosceles* (2), *Microborus* (1), *Eupagiocerus* (1), and *Hoplitophthorus* (2) are described as new to science. Ten of these species were taken in Mexico, three in the Panama Canal Zone, two in Cuba, and one each in Puerto Rico, Honduras and Bolivia; one species was taken in Florida, Puerto Rico and the Panama Canal Zone. Seven of the species were collected by the writer while with the 1953 expedition of the Francis Huntington Snow Entomological Museum (University of Kansas, Lawrence); of the remaining species nine were received from the United States National Museum and one from the California Academy of Sciences.

Scolytopsis cubensis, n. sp.

This species is very closely allied to *puncticollis* Blandford, but may be distinguished by the more strongly impressed striae in the posterior areas, by the larger strial punctures with interstrial punctures subequal in size, and by the slightly larger, more shallow punctures of the pronotum.

Female.—Length 2.4 mm. (paratypes 2.1-2.4), 2.3 times as long as wide; color dark brown.

Frons broadly convex above, transversely impressed immediately above epistoma, with a broad median elevation extending from convex area above partly bisecting the impression below; surface finely, deeply, closely punctured, convergently strigose toward the weak median elevation below; vestiture scanty, consisting of a few short, coarse setae and a rather poorly developed epistomal brush. Eye and antenna as in other species of the genus.

Pronotum equal in length and width; widest on posterior third, sides arcuately converging toward the broadly rounded anterior margin; surface smooth, shining, except reticulate in lateral areas, with numerous minute points between the punctures; punctures rather large, deep, oval, narrowest diameter at least five times greater than that of minute points, those in lateral areas round and at least three times larger than those on disc; glabrous.

Elytra 1.4 times as long as wide, 1.4 times as long as pronotum; sides constricted on basal third, rather broadly rounded behind; surface smooth near bases, minutely granulose over posterior three-fourths; striae not impressed on basal half, distinctly impressed on posterior half, the punctures as large and deep and somewhat closer

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than in *puncticollis*; interstriae appearing very feebly sulcate, the punctures deep, close, regular, almost as large as those of striae. Declivity gradual, not steep. Vestiture consisting of rows of erect interstitial scales as in *puncticollis*.

Male.— Similar to female except frons smooth and polished in central area with a fringe of long yellowish hair arising on sides and on vertex, largely concealing surface.

Type locality.— Cayamas, Cuba.

Type material.— The female holotype, male allotype and six paratypes were taken at the type locality on May 9, by E. A. Schwarz; two paratypes bear the same data, taken Jan. 20. One paratype was taken at Baragua, Cuba, on Aug. 29, 1927, from a sticky shield, by L. A. Searamuzza.

The holotype, allotype and six paratypes are in the U. S. National Museum; three paratypes are in the collection of the writer.

Loganius splendens, n. sp.

This species is allied to *ficus* Schwarz, but is readily distinguished by the less strongly impressed frons which is pilose in the female, and by the more coarsely sculptured elytral declivity.

Male.— Length 2.0 mm. (paratypes 1.7-2.1), 2.3 times as long as wide; color reddish brown.

Frons convex above, transversely impressed above epistoma, epistomal submargin with an impressed line on median two-thirds; surface reticulate above, rather coarsely, closely, deeply sculptured, the punctures moderately close above, very close below; vestiture short, inconspicuous. Eye elongate, weakly sinuate on anterior margin; coarsely granulate. Antenna as in *ficus*.

Pronotum as long as wide, widest on basal third; sides weakly arcuate and converging toward the narrowly rounded anterior margin; surface subshining, the punctures rather large, deep, close, oval, somewhat larger in lateral areas; glabrous.

Elytra 1.5 times as long as wide; sides straight and subparallel on basal two-thirds, rather broadly rounded behind; elytral bases weakly raised along a continuous, irregular line; scutellum small, rounded; striae weakly impressed, the punctures moderately large, close deep; interstriae as wide as striae, moderately convex, smooth, subshining, the punctures small, distinct, close. Declivity steep, convex; all striae more strongly, narrowly impressed and all interstriae more strongly convex than on disc; all interspaces finely tuberculate, the tubercles becoming progressively larger laterally, largest on nine; interspaces one, two, three and five meet ten, four joins five, six and eight end short, seven and nine fuse apically; ten very narrow, largely reduced but bearing a few tubercles. Vestiture consisting of rows of short narrow scalelike setae, each seta arising from posterior margin of a tubercle.

Female.— Similar to male except frons flattened on a broad area to well above eyes and bearing a subcircular brush of moderately

long hair, shorter toward center, extending from epistomal margin to upper level of eyes.

Type locality.— Mexico.

Host.—*Tabebuia* (= *Cybistax*) *donnell-smithii*.

Type material.— The male holotype, female allotype and five paratypes were intercepted at San Pedro, California, on Sept. 22, 1947, in "*Cybistax donnell-smithii*" bark that came from Mexico.

The holotype, allotype and three paratypes are in the U. S. National Museum; two paratypes are in the collection of the writer.

Loganius vagabundus, n. sp.

This species is rather closely allied to *impressus*, but is distinguished by the less broadly impressed frons, by the more coarsely punctured pronotum, by the more sparsely, more deeply punctured elytral interstriae, and by the less abundant elytral setae.

Male.— Length 1.7 mm. (paratypes 1.2-1.7), 2.5 times as long as wide; body color light reddish brown.

Frons convex on upper half, flattened on a subtriangular area on lower half, more strongly impressed on a transverse line just above epistoma, narrow epistomal margin smooth and shining; surface reticulate, rather closely, deeply punctured above, punctures setose on flattened area; setae moderately abundant except at center, rather coarse, moderately long. Eye coarsely faceted; outline sinuate on both anterior and posterior margins. Segments two to seven of antennal funicle as broad as pedicle and each bearing a tuft of long setae on inner margin; club broad, not septate, conspicuously marked by three strongly procurved rows of setae.

Pronotum very slightly wider than long (1.02 times); widest on basal fourth, sides convergently arcuate toward the rather narrowly rounded anterior margin, very slightly constricted just behind anterior margin; surface shining, with very feeble indication of minute longitudinal lines, and a few very minute points between the moderately coarse, deep, broadly oval punctures; glabrous.

Elytra 1.5 times as long as wide; sides straight and subparallel on basal two-thirds, narrowly rounded behind; elytral bases not raised along a continuous costa, but with a few finely subcrenulate punctures suggesting a partial raised line; striae feebly if at all impressed, the punctures moderately large, very close, deep; interstriae subconvex, smooth, subshining, about one and one-half times as wide as striae, the punctures almost as large as those of striae, rather shallow, sparse, spaced at distances about equal to width of interstriae. Declivity moderately steep, convex; striae one and two more strongly impressed, interstriae one, two, three and nine more strongly convex than others, their punctures closer than on disc and subserrate on anterior margins; interspaces five and seven also minutely granulate; interspaces one and two reaching margin, three, five and seven join nine. Vestiture limited to declivity, consisting of sparse, short, narrowly flattened setae.

Female.— Similar to male except frons more strongly, broadly impressed, the impression ending well below upper level of eyes; and declivital sculpture finer.

Type locality.— Key West, Florida.

Host.— *Ichthyomethia piscipula*.

Type material.— The male holotype, female allotype and 27 paratypes were reared from the host at the type locality from May 22 to 30, 1912, by E. A. Schwarz, lot no. 9170. Nineteen other paratypes were taken at the same locality and time but do not bear a lot number, except one specimen numbered 5952. Five paratypes are labelled "Mona Island, Puerto Rico, April 6-8, 1927, W. A. Hoffman;" two paratypes are from Barro Colorado Island, Panama Canal Zone, Sept. 1941, taken by J. Zetek, lot no. 41-20624, and seven others are from the same locality and were taken on June 20, 1941, at light, lot no. Z-4816. Two additional specimens evidently belong to this species, but not designated as paratypes are labelled "Jost Van Eyke, Little Harbor, B. V. I., 1-IV-1958, J. F. G. Clarke."

The holotype, allotype and most of the paratypes are in the U. S. National Museum; some paratypes are in the collection of the writer.

Loganius impressus, n. sp.

This species is allied to *ficus* Schwarz but is distinguished by the much smaller size, by the dull more coarsely sculptured elytral surface, by the more finely punctured pronotum, and by the much more shallowly impressed, more strongly pubescent frons.

Male.— Length 1.5 mm. (paratypes 1.3 and 1.4), 2.3 times as long as wide; body color reddish brown.

Frons very shallowly, broadly concave almost to upper level of eyes; a rather wide, subtriangular, smooth shining epistomal area immediately above epistomal brush; surface of impressed area finely granulate-punctate, largely obscured by abundant, subplumose yellow setae of moderate length. Eye large, coarsely faceted; anterior margin sinuate. Antennal scape short, stout; funicle as long as scape, with segments two to seven each as wide as pedicle and bearing on ventral margin long setae none of which extend beyond tip of club; club large, broadly obovate, about as long as scape and funicle combined, 1.3 times as long as wide, with three strongly procurved stures indicated by rows of setae, the first not quite reaching middle.

Pronotum very slightly wider than long (1.04 times), widest on basal fourth, sides evenly, arcuately convergent toward the narrow, but broadly rounded anterior margin; basal and lateral margins with a fine, raised line; surface apparently minutely, longitudinally strigose on anterior half, becoming smooth posteriorly, and with rather fine longitudinally elongate punctures, becoming smaller posteriorly and with a few very minute pores interspersed posteriorly. Glabrous.

Elytra 1.4 times as long as wide, 1.6 times as long as pronotum; sides straight and subparallel on slightly more than basal half, rather narrowly rounded behind; humeral angles abrupt; first striae dis-

tinctly impressed from base others feebly impressed, the punctures fine, distinct, in regular rows; interstriae about three times as wide as striae, their surface smooth but very dull, the punctures in uniseriate median rows, small, all finely graulate; basal margins almost straight and irregularly raised, interspaces two to six with up to six poorly developed subcrenulate elevations near base; scutellum small, rounded in outline, scarcely at all depressed. Declivity evenly convex, moderately steep, all striae rather narrowly impressed; interspaces one, two, three, five, seven and nine moderately convex and tuberculate, costal margin and posterior portion of ten also tuberculate, tubercles on lateral interspaces appearing somewhat larger; interspace one joins costal margin, two joins ten, three joins fused seven and nine, four and six end short of five. In dorsal profile interspace nine appears very finely serrate on posterior half of elytra; ten finely serrate on anterior half. Vestiture confined to declivity, consisting of rows of short, stout, semi-erect almost scalelike setae arising from interspatial tubercles; longest setae about one-third as long as distance between rows.

Female.— Similar to male except frons evidently more strongly impressed.

Type locality.— Chilpancingo, Guerrero, Mexico.

Type material.—The male holotype, female allotype and one male paratype were taken at the type locality on Oct. 22, 1941, at light by D. M. DeLong. All three specimens are in the collection of the writer.

Loganius prociduus, n. sp.

This species is closely allied to *impressus* but is readily distinguished by the more coarsely sculptured elytra, by the longer, more scalelike, recumbent declivital setae, and by the very different arrangement of the elytral interspaces.

Female.— Length 1.4 mm. (paratype 1.5), 2.6 times as long as wide; body color reddish brown.

Frons very shallowly, broadly concave from the sinuate epistomal margin to upper level of eyes; epistomal margin subcarinately raised and obscurely overlapping epistomal brush, with a rather narrow smooth subshining area immediately above epistomal brush; surface of impressed area finely granulate-punctate, largely obscured by abundant subplumose yellow setae of moderate length. Eye and antenna essentially as in *impressus*.

Pronotum 1.05 times as wide as long, widest on basal third, sides converging somewhat toward the broadly rounded anterior margin; basal and lateral margins marked by a fine raised line; surface dull, the punctures moderately abundant, rather small except larger in lateral areas, oval, the interspaces with a few very minute pores. Glabrous.

Elytra about 1.5 times as long as wide, 1.6 times as long as pronotum; sides straight and subparallel on slightly more than basal

half, rather narrowly rounded behind; humeral angles abrupt; striae slightly impressed, the punctures moderately large, in regular rows; interstriae less than one and one-half times as wide as striae, the punctures almost as large as those of striae, moderately spaced in single rows, those toward base with anterior margin raised, those near declivity appearing subvulcanate, surface almost smooth, dull; basal margins slightly impressed toward scutellum, subcrenately raised, basal area somewhat irregular but not subcrenulate; scutellum almost round in outline, very slightly if at all depressed. Declivity evenly convex, moderately steep, all striae narrower and more strongly impressed than on disc; costal margin and all interspaces, except eight, convex and serrate; serrations uniseriate, moderately coarse, evidently larger laterally; interspaces one, two, three, and five (usually evidently fused to seven and nine) all reaching costal margin, four, six and eight end near middle of declivity; ten with two to five small tubercles near posterior extremity; interspace nine serrate on posterior half of elytra, ten evidently minutely serrate on anterior half. Vestiture confined to posterior half of elytra and sides, consisting of interspatial rows of short recumbent spatulate scales arising from interstitial punctures; each scale equal in length to half the distance between rows of scales, and each about four times as long as wide.

Type locality.— LaCeiba, Honduras.

Type material.— The female holotype and one female paratype were collected at the type locality on May 29, 1949, at light, by E. C. Becker. Both specimens are in the collection of the writer.

Loganius liratus, n. sp.

The transverse epistomal carina, the frontal vestiture, the sculpturing of the elytral declivity, and the small size will distinguish this species from all known representatives of the genus.

Female.— Length 1.5 mm. (paratypes 1.3-1.5), 2.5 times as long as wide; body color dark reddish brown.

Frons convex above, transversely impressed on lower half with a rather high, narrow, rounded, transverse carina occupying median half, rising abruptly below, sloping gradually above; epistoma with median portion produced in front of mandibles; surface reticulate-granulate, moderately punctured at sides and above; vestiture consisting of a conspicuous brush of short erect yellow hair on median half between carina and a point just below upper level of eyes, epistomal brush emerging from lower margin of the smooth, shining, glabrous carina. Eyes and antenna as in *prociduus*.

Pronotum equal in length and width; widest on basal third, the sides arcuately converging to the moderate transverse constriction just behind the broadly rounded anterior margin; almost smooth and subshining posteriorly, the punctures moderately coarse and deep, rather close, oval. Glabrous.

Elytra 1.5 times as long as wide, 1.6 times as long as pronotum; sides straight and subparallel on basal two-thirds, rather narrowly

rounded behind; sutural striae weakly, others not at all impressed; interspaces more than twice as wide as striae, the punctures very fine, subgranulate, sparse, surface smooth, subshining; basal margins rounded, raised and subcrenulate, with a few small submarginal crenulations on interspaces two to five; scutellum slightly depressed, almost round in outline. Declivity evenly convex; moderately steep; striae weakly impressed, odd numbered interspaces more nearly convex; interspaces dull, one, two, three, five, seven, nine and costal margin each bearing a row of fine rather widely spaced tubercles, those on seven, nine and costal margin larger, five devoid of tubercles on lower two-thirds; interspace one joins raised costal margin, two, three and five separately join the fused seven and nine, ten virtually obsolete in declivital region. Vestiture sparse, inconspicuous, confined to declivity, except extending onto disc on odd numbered interspaces; each seta fine, blunt, bristlelike, about half as long as space between rows, separated by three to four times their length from nearest bristle in same row.

Male.— Similar in all respects to female.

Type locality.— Twelve miles southeast of Matamoros, Puebla, Mexico.

Type material.— The female holotype, male allotype and 44 paratypes were taken at the type locality on July 3, 1953, by S. L. Wood. The host tree had reddish, peeling bark; the galleries were in branches varying from one-fourth to four inches in diameter.

The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Loganius fastigiatus, n. sp.

This species is allied to *procidius* but may be distinguished by the convex frons, by the transverse frontal carina, by the prominent crenulate tubercles of the elytral disc, and by the finer declivital sculpture.

Female.— Length 1.6 mm. (paratypes 1.4-1.7), 2.6 times as long as wide; body color rather dark reddish brown.

Frons convex, with a broad, rather sharply elevated, transverse carina just above epistomal margin; lower slope of carina more gradual, smooth, shining, upper slope more abrupt, reticulate and bearing several setae; surface above carina minutely granulose, impunctate in central area, finely, sparsely punctured at sides and above; vestiture longer and more conspicuous along upper slope of carina and along epistomal margin, a glabrous area extending from above bases of mandibles across lower slope of carina. Eye and antenna as in *procidius*.

Pronotum 1.05 times as wide as long, widest on basal third, sides weakly arcuate behind, abruptly converging anteriorly toward the broadly rounded anterior margin; basal and lateral margins marked by a fine raised line; surface dull minutely longitudinally strigose,

the punctures moderately abundant, rather small, oval, the interspaces with a few very minute pores. Glabrous.

Elytra 1.3 times as long as wide, 1.4 times as long as pronotum; sides straight and subparallel on slightly less than basal half, rather narrowly rounded behind; humeral angles abrupt; first striae moderately impressed, others feebly, if at all impressed; striae punctures small, in regular rows; interstriae at least twice as wide as striae, surface marked by a few irregular lines, the punctures slightly smaller than those of striae and each bearing on its raised anterior rim a low transverse crenulation about equal in length to half the width of an interspace, except crenulations entirely absent on interspaces four and six; basal margins straight, slightly impressed near scutellum, anterior margins subcrenulate elevated and with a few submarginal crenulations on interspaces two to four; scutellum round in outline, distinctly depressed below general surface of elytra. Declivity evenly convex, rather steep; striae more strongly, narrowly impressed; interspaces feebly convex, the crenulations much narrower, very slightly higher; interspaces four, six and eight entirely unarmed; interspace one evidently meets costal margin, two meets ten, three meets fused seven and nine, four and six join five and end before meeting fused seven and nine; ten bearing four or five small tubercles posteriorly; posterior costal margin with a few punctures, sinuate, not serrate; interspace ten subserrate on basal half of elytra, nine on posterior half. Vestiture scanty, consisting of stout, sparse almost scalelike interstitial setae on declivity and posterior portion of disc except on interspaces four and six, each seta equal in length to about half the distance between rows of setae.

Fifth abdominal sternum bearing a low transverse ridge near middle of segment.

Male.— Similar in all respects to the female.

Type locality.— Nine miles northwest of Acatlan, Puebla, Mexico.

Type material.— The female holotype, male allotype and 19 paratypes were collected at the type locality on July 13, 1953, from host plant no. 50 deposited in the University of Kansas herbarium, by S. L. Wood. The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Loganius confinis, n. sp.

The concave, pubescent frons with its broad, elevated epistomal process, the impressed scutellar area of the elytra, the simple declivity, and the small size serve to distinguish this species from all other representatives of the genus.

Female.— Length 1.7 mm. (paratypes 1.4-1.9), 2.3 times as long as wide; body color rather dark reddish brown.

Frons broadly, rather deeply concave from epistomal carina to upper margin of eyes; a smooth, shining, transverse band immediately above epistomal margin elevated and subcarinate, less well

developed but similar to that of *fastigius*, extending almost from lateral margin to lateral margin; reticulate-granulate above and at sides, finely punctured in lower part of concave area; vestiture confined to concave area, fine, rather long, more abundant below and laterally, the fine, sparse epistomal brush apparently rising from beneath lower margin of lower slope of the transverse carina. Eye and antenna as in *procidius*.

Pronotum 1.05 times as wide as long, widest on basal third, sides converging somewhat toward the constriction just behind the rather narrowly rounded anterior margin; basal and lateral margins marked by a fine raised line; surface rather dull, indistinctly, minutely longitudinally strigose, the punctures moderately small, narrowly oval, rather close. Glabrous.

Elytra 1.5 times as long as wide, 1.6 times as long as pronotum; sides straight and subparallel on basal two-thirds, rather narrowly rounded behind; humeral angles rounded; striae not impressed except first, the punctures very fine, rather close; interstriae at least three times as wide as striae, the punctures slightly if at all smaller than those of striae, rather close, in uniseriate rows, surface smooth, dull; elytral bases subcrenulate raised, except impressed near scutellum, several low crenulations on interspaces two to six; scutellum small, oval in outline, rather strongly depressed. Declivity evenly convex, rather steep; striae feebly impressed, interspaces one, two, three, seven, nine and ten very weakly convex with exceedingly minute tubercles in uniseriate rows; interspace one meets costal margin, two meets ten, three meets fused seven and nine; weakly raised costal margin with setose punctures, not at all granulate. Vestiture almost obsolete, a few minute interstitial bristles on declivity, none longer than one-third the distance separating rows of bristles.

Male.— Similar to female in all respects.

Type locality.— Four miles east of La Pas on the road to Las Cruces, Baja California, Mexico.

Host.— *Sapium biloculare*.

Type material.— The female holotype, male allotype and 88 paratypes were taken at the type locality on Dec. 23, 1958, from dead branches of the host, by H. B. Leech. The holotype, allotype and some paratypes are in the California Academy of Sciences; other paratypes are in the collection of the writer.

Loganius niger, n. sp.

This minute species is distinguished from the foregoing species by the black color, by the sexually dimorphic frons, by the simple structure of the elytral declivity, and by the small size.

Female.— Length 1.2 mm. (paratypes 1.15-1.25), 2.6 times as long as wide; body color black, vestiture white.

Frons broadly flattened from epistomal margin to upper level of eyes, transversely impressed on lower third; surface minutely granulose, very finely closely punctured in impressed area and densely pubescent from epistomal margin to upper level of eyes, the setae subplumose, moderately long, almost white, epistomal brush not separated from other setae. Eye rather finely faceted, deeply sinuate on anterior margin. Antennal club about three-fourth as long as combined length of scape and funicle; first suture reaching only one-third the length, all sutures rather broadly procurved.

Pronotum 1.1 times as wide as long, widest on basal third, sides arcuately converging slightly toward the narrowly rounded anterior margin; basal and lateral margins marked by a fine, raised line; surface subshining, the punctures fine, elongate, rather sparse. Glabrous.

Elytra 1.7 times as long as wide, sides straight and subparallel on slightly more than basal half, rather narrowly rounded behind; humeral angles rather narrowly rounded; striae not impressed, the punctures small, distinct, separated by almost twice their own diameters, in regular rows; interstriae one to three times wider than striae, one and three wider than two and four, smooth, subshining, the punctures sparse, fine, minutely subgranulate on one and three to base; basal margins almost straight, impressed toward scutellum, finely irregularly raised from about interspace two to six, a few submarginal subcrenulate elevations; scutellum small depressed, longer than wide. Declivity evenly convex, moderately steep; striae weakly impressed, the interspaces feebly convex; interstitial granules moderately large, rounded, rather widely spaced, in uniseriate rows on all interspaces except absent on four, six, eight and ten; costal margin finely raised and sinuate, confluence of interspaces with costal margin or with one another not clear, except possibly three and nine, interspace ten minutely serrate on basal half of elytra, nine minutely serrate on posterior half. Vestiture scanty, consisting of sparse rows of erect, blunt interstitial bristles on declivity and sides.

Male.— Similar to female except frons convex above, impunctate at center, and glabrous.

Type locality.— Sixteen miles west of Tehuantepec, Oaxaca, Mexico.

Type material.— The female holotype, male allotype and 28 paratypes were collected at the type locality on July 8, 1953, by S. L. Wood. The host plant was a somewhat grasslike herbaceous shrub that grew in dense shade; when cut an abundant milky fluid escaped. A sample of the host, plant no. 42, is deposited in the University of Kansas herbarium. The galleries were immediately below the thin bark where the beetles worked in pairs.

The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Hexacolus multistriatus, n. sp.

This species is allied to *schwarzi* (Hopkins) but is larger, more coarsely sculptured, and darker in color than other species known to me.

Female.—Length 2.1 mm. (paratypes 1.7-2.1), 2.3 times as long as wide; body color very dark brown.

Frons weakly convex, smooth, shining and glabrous on a small median area extending from just below upper level of eyes half the distance to epistomal margin, lower half and sides rather finely, closely punctured, gradually raised to epistomal margin; epistomal margin with a median lobe extending in front of mandibles; vestiture consisting of moderately dense, long, plumose yellow setae arising from vertex to upper and lateral margins of glabrous area, shorter and not plumose on punctured area below. Eye elongate, entire.

Pronotum 1.2 times as long as wide; widest on basal fourth, the sides almost straight and feebly converging on basal two thirds then abruptly narrowed to the rather broadly rounded anterior margin; asperities rather coarse, extending in median area to basal third, gradually decreasing in size posteriorly, similar to but coarser than in *schwarzi*; surface subreticulate and rather coarsely, closely, deeply punctured behind and at sides; subshining; lateral and basal margins acutely marked by a fine raised line; summit indefinite. Glabrous.

Elytra 1.5 times as long as wide, 1.6 times as long as pronotum; sides almost straight and subparallel on basal two-thirds, rather broadly rounded behind; striae feebly if at all impressed, the punctures small, in rows, separated by distances about equal to their own diameters; interstriae smooth, shining, more than twice as wide as striae, the punctures large, almost as large as those of striae, close, in semi-definite rows; basal margins with a fine raised line similar to that of pronotum. Declivity steep, convex; striae nearest suture weakly impressed; sutural interspace weakly raised below, two somewhat impressed; all interspaces with a few moderately large rounded, widely spaced granules on upper half; all punctures tending to become smaller and confused on lower third. Disc glabrous; sparse, rather short, slender hairlike setae arising from declivital granules.

Male.—Similar to female except frons more nearly convex, uniformly reticulate with sparse punctures, rather strongly transversely punctured above the smooth shining, slightly elevated epistomal margin, a weak median carina extending from impression to margin; and declivital granules very slightly larger.

Type locality.—Five miles west of Villa Juarez, Puebla, Mexico.

Type material.—The female holotype, male allotype and 32 paratypes were taken on June 25, 1953, from a branch of a small tree, by S. L. Wood. The galleries of adults and larvae were deep in the sapwood. They were of the radiate type, with one to four females associated with each male.

The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Hexacolus reticulatus, n. sp.

The sculpture of the pronotum of this species resembles that of *glabrellus* Schedl, but the frons and elytra are entirely different.

Female.—Length 1.6 mm. (paratypes 1.5-1.8), 2.5 times as long as wide; body color very dark brown.

Frons flattened (feebly convex) on lower two-thirds; smooth, shining and glabrous on median area on slightly more than lower half of flattened area to the poorly developed epistomal brush; coarsely, closely punctured on crescent area above impunctate portion, a few feeble punctures laterally; epistomal margin with median lobe extending in front of mandibles; vestiture consisting of rather abundant, long, fine yellow hairlike setae, arising in punctured area well below upper margins of eyes, setae less abundant and shorter at sides and along epistomal margin. Eye and antenna as in other species of genus.

Pronotum 1.04 times as long as wide; widest on basal third, the sides evenly arcuate and converging slightly toward the broadly rounded anterior margin, asperities before summit rather fine, as in *glabrellus*, but with feeble indications of their continuance well behind indefinite summit; surface dull, reticulate, with fine sparse punctures behind and at sides; basal and lateral margins marked by fine raised line. Glabrous.

Elytra 1.6 times as long as wide, 1.7 times as long as pronotum; sides straight and subparallel on basal two-thirds, rather narrowly rounded behind; striae not impressed, the shallow punctures in irregular rows, separated by about twice their own diameters; interstriae evidently two to three times as wide as striae, the surface dull, reticulate, and, on basal half, irregularly somewhat wrinkled, the punctures about two-thirds as large as those of striae, in irregular rows, somewhat obscure in wrinkled area; basal margins with fine raised line as in other species. Declivity rather steep, evenly convex; first striae very feebly impressed near middle; all punctures somewhat reduced, obsolete toward apex. Elytra glabrous, except declivity and sides with minute hairlike setae arising from interstitial punctures, each seta scarcely longer than a distance equal to diameter of a puncture.

Male.—Similar to female except frons more nearly convex, reticulate, finely and sparsely punctured, and without conspicuous vestiture; punctures of elytral disc more clearly evident, and punctures of elytral declivity more strongly reduced.

Type locality.—Twelve miles southeast of Matamoros, Puebla, Mexico.

Host.—*Ficus* sp.

Type material.—The female holotype, male allotype and 67 paratypes were collected at the type locality on July 3, 1953, from

the bark of branches of what appeared to be the strangler fig, by S. L. Wood.

The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Hexacolus tenuis, n. sp.

This small, slender, pubescent species is entirely different from all other known species in the genus.

Female.—Length 1.3 mm. (paratypes 1.1-1.3), 3.0 times as long as wide; mature body color very dark brown, almost black.

Frons transversely impressed on lower half, epistomal margin slightly elevated; surface rather coarsely, subgranulately punctured above, finely punctured in impressed area; vestiture consisting of a brush of long yellow, subplumose setae beginning well below upper level of eyes, directed ventrad, setae on lower and epistomal areas less abundant but almost as long. Eye and antenna as in other species.

Pronotum 1.3 times as long as wide; sides straight and parallel on basal two-thirds, rather narrowly rounded on the subserrate anterior margin; asperities rather small, moderately high, confined to anterior third; posterior and lateral areas obscurely reticulate, subshining, coarsely, deeply and rather closely punctured; summit indefinite, near anterior third; basal and lateral margins marked by a fine, raised line; vestiture short, coarse in asperate area, fine behind, rather sparse, not conspicuous.

Elytra 1.9 times as long as wide, 1.5 times as long as pronotum; sides straight and subparallel on basal two-thirds, rather broadly rounded behind; striae not impressed, the setiferous punctures rather large, deep, separated by a distance equal to less than their own diameters; interstriae as wide as striae, smooth, shining, the punctures fine, sharp, setiferous; basal margins with fine raised line. Declivity rather steep, evenly convex; striae punctures reduced, the sutural row weakly impressed, all rows equal in size to and somewhat confused with those of interspaces. Vestiture similar on disc and declivity, consisting of rather abundant, short, recumbent, hairlike striae and interstriae setae, each hair about twice as long as the width of a striae puncture; and long, erect, interstriae hairlike setae arising from every third to fifth interstriae puncture on interspaces one, three, five, seven and nine.

Male.—Similar to female except frons evenly convex with a narrow transverse impression just above epistomal margin, the frontal vestiture sparse, inconspicuous.

Type locality.—Twelve miles southeast of Matamoros, Puebla, Mexico.

Host.—*Ficus* sp.

Type material.—The female holotype, male allotype and seven paratypes were taken on July 3, 1953, by S. L. Wood, from bark of the same branch of strangler fig that contained the previous species, *reticulatus*.

The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Hexacolus obscurus, n. sp.

This species is somewhat allied to *schwarzi* Hopkins, but is not closely related; it may be distinguished from Hopkins' species by the fine sculpture and the much finer punctures of pronotum and elytra.

Female.— Length 1.3 mm. (paratypes 1.0-1.3), 2.4 times as long as wide; body color brown.

Frons flattened, feebly convex from well above eyes to epistomal margin; oval median area from well below upper level of eyes to just above epistomal margin smooth, shining, impunctate; moderately punctured above to well above upper level of eyes, at sides and above epistoma; vestiture consisting of long, subplumose yellow hair-like setae arising on punctured area above, becoming shorter and less abundant toward epistoma. Eye and antenna as in other species of the genus.

Pronotum about as long as wide; sides almost straight and parallel on basal half, broadly rounded in front; asperities fine, low, rather close, decreasing in size and abundance posteriorly to two-thirds of pronotal length from anterior margin; posterior and lateral areas dull, subrugose-reticulate, the punctures very small and shallow, almost entirely obscured by the irregular surface structures; lateral and basal margins acutely marked by a fine raised line; summit indefinite, on anterior half; glabrous.

Elytra 1.6 times as long as wide 1.7 times as long as pronotum; sides almost straight and subparallel on basal two-thirds, rather narrowly rounded behind; striae not at all impressed, the punctures small, shallow, rather indefinite; interstriae at least twice as wide as striae, rather smooth, shining, with a few minute pores scarcely visible at a magnification of 80 diameters, the usual interstitial punctures entirely absent; basal margins with a fine raised line similar to that of pronotum. Declivity steep, convex; striae punctures reduced in size but deeper than on disc; interstitial punctures minute, not clearly defined. Subglabrous with very minute striae setae and, on declivity, interstitial setae; each seta not longer than a distance equal to the diameter of a striae puncture.

Male.— Similar to female except frons evenly convex, uniformly reticulate and finely punctured, vestiture inconspicuous, hairlike.

Type locality.— Three miles southwest of Martinez de la Torre, Vera Cruz, Mexico.

Type material.— The female holotype, male allotype and 44 paratypes were collected at the type locality on June 26, 1953, from an herbaceous treelike shrub, by S. L. Wood. Galleries were of the radiate type with most of the egg galleries transverse; larval mines paralleled the axis.

The holotype, allotype and some paratypes are in the Snow Entomological Museum; other paratypes are in the collection of the writer.

Microborus Blandford

The monobasic genus *Microborus* was described by Blandford (1897, *Biologia Centrali-Americana*, Coleoptera 4(6):175) for a single specimen of his species *boops* that was taken in Guatemala. Since its description two additional species, *imitans* and *aberrans* have been added to the genus by Eggers. A recent opportunity to study cotypes of *Pseudocrypturgus camerunus* Eggers, from Africa, makes necessary the addition of a fourth species to the genus. With this transfer of the type species, *camerunus*, the monobasic genus *Pseudocrypturgus* Eggers (1919, *Ent. Blatt.* 15:236) becomes a synonym of *Microborus*.

Microborus camerunus (Eggers), n. comb.

This is the only representative of the genus known to occur outside of the Neotropical realm. As was suspected several years ago, evidence is now available that suggests it was introduced to Africa from a neotropical area. Two specimens in my collection, unquestionably belonging to this species, were taken at Olanchito and La Ceiba, Honduras. Setae on the lower portion of the declivity of the Olanchito specimen are a little stouter at their bases than those of Eggers cotypes. Two additional specimens tentatively assigned to this species, from Jamaica, are in the U. S. National Museum collection. One of these has the declivital setae as in the Olanchito specimen; in the other, the basally broad setae are more generally distributed on the declivity.

Microborus lautus, n. sp.

This species evidently is more closely allied to *boops* Blandford than to other known representatives of the genus, but may be distinguished by the shining surface of head and pronotum, by the more coarsely, closely, deeply punctured pronotum, and by the slightly smaller size.

Female.— Length 1.5 mm. (paratypes 1.25-1.55), 2.7 times as long as wide; color of elytra light brown, pronotum dark, head almost black.

Frons rather weakly convex, somewhat flattened below, with a pair of rather short longitudinal calluses extending dorsad from a point between and just above antennal bases; calluses and epistomal margin lighter in color; surface smooth and shining in central and dorsal areas, subreticulate at sides, punctures small, deep, rather sparse, absent on calluses; vestiture short, sparse, inconspicuous. Eye somewhat reniform, the anterior margin almost straight. Antennal club small, devoid of sutures.

Pronotum 1.3 times as long as wide, widest at base; sides straight (or very feebly constricted) and converging slightly on basal three-fourths, weakly, transversely constricted just behind the rather

broadly rounded anterior margin; weakly arched from base to transverse constriction; surface smooth and brightly shining, the punctures moderately large, close, deep, except narrowly impunctate along posterior two-thirds of median line; vestiture consisting of minute, erect, sparse hairlike setae, longer near anterior margin.

Elytra 1.7 times as long as wide; sides almost straight and subparallel on basal three-fourths, rather broadly rounded behind; striae not impressed except the first, the punctures large, close, deep; interstriae very slightly narrower than striae, smooth, shining, the punctures fine, moderately close. Declivity rather steep, convex; striae one and two slightly impressed; posterior third of interspace nine and apex of seven irregularly, rather weakly carinate, the carinae fusing and continuing to costal margin at apex of interspace two; all interspaces bearing a median row of fine rounded granules. Vestiture consisting of rows of hairlike interstitial setae, fine on disc, coarse on declivity, and minute striae setae; interstitial setae on declivity almost as long as a distance equal to space between rows of setae, except longer on interspaces seven and nine.

Male.— Similar in all respects to the female.

Type locality.— Leper Island, San Juan, Puerto Rico.

Host.— *Nerium* sp.

Type material.— The holotype, allotype and seven paratypes were collected at the type locality on May 17, 1935, from dead Oleander twigs, by F. Sein.

The holotype, allotype and four paratypes are in the U. S. National Museum; three paratypes are in the collection of the writer.

Prionosceles glaber, n. sp.

This species is unique in the genus in having the elytra entirely glabrous; the comparatively large size and confused elytral punctures also serve to distinguish it from previously described species.

Male.— Length 2.6 mm. (paratypes 2.4-2.8), 2.1 times as long as wide; color black, antennae and legs somewhat lighter.

Frons broadly, uniformly convex, with a slight transverse impression just above epistomal margin; surface reticulate, the punctures rather fine, deep, moderately close, finer and more abundant on impressed area; vestiture fine, short, inconspicuous except for a rather dense brush of moderately long yellow hair directed orad. Eye elongate, entire; finely granulate. Antennal club small, with two weakly procurved sutures indicated by rows of setae.

Pronotum about as long as wide; sides straight and parallel, then abruptly narrowed to the rather narrowly rounded anterior margin; basal and lateral margins marked by a conspicuous fine raised line; rather strongly arched from basal to anterior margin; surface subshining, obscurely, very finely reticulate; punctures very fine, deep, moderately abundant, appearing subcrenulate wrinkled on anterior fourth; glabrous.

Elytra 1.3 times as long as wide, about 1.4 times as long as pronotum; sides straight and parallel on basal two-thirds, rather abruptly, broadly rounded behind; striae obscurely indicated on base of disc, the punctures very fine and confused posteriorly with the abundant, confused, interstrial punctures. Tenth interspace costiform to declivity; ninth interspace elevated near declivital base. Declivity steep, convex; positions of striae one and two impressed, interspaces one, two and three convex on middle third; all punctures minute, deep, confused. Elytra entirely glabrous.

Female.— Similar to male except frons broadly flattened on lower two-thirds, impressed just above epistoma, and bearing a conspicuous brush of rather abundant, moderately long, fine, yellow hair uniformly distributed over entire flattened area from just below upper level of eyes of epistomal margin; impressions and elevations of elytral declivity obscure.

Type locality.— Summit, Panama Canal Zone.

Host.— *Cecropia* sp.

Type material.— The male holotype, female allotype and six paratypes were collected at the type locality during October 1946, from dead *Cecropia* leaf petioles, by N. L. H. Krauss, lot no. 937. Three paratypes bear the same data except they were taken during September, 1946, lot no. 810.

The holotype, allotype and seven paratypes are in the U. S. National Museum; three paratypes are in the collection of the writer.

Prionosceles panamensis, n. sp.

This species is more closely allied to *glaber* than to other known species, but may be distinguished by the smaller size, by the distinctive sculpture of the frons in both sexes, by the impressed striae, and by the more gradual elytral declivity.

Male.— Length 2.3 mm. (paratypes 2.1-2.4), 2.0 times as long as wide; color dark brown.

Frons broadly convex, with lower part of median half bearing a large, conspicuous, almost hemispherical elevation; surface reticulate, the punctures moderately coarse, rather deep and close, more abundant and slightly smaller on lower half including circular area occupied by elevation; vestiture restricted to a few epistomal hairs. Eye elongate, entire; finely granulate. Antennal club as in *glaber*.

Pronotum about as long as wide; sides straight and parallel, then abruptly narrowed to the rather narrowly rounded anterior margin; basal and lateral margins marked by a conspicuous fine raised line; rather strongly arched from basal to anterior margin; surface rather dull, reticulate; punctures very fine, deep, moderately abundant, appearing subcrenulately wrinkled on anterior fourth; glabrous.

Elytra 1.1 times as long as wide, 1.2 times as long as pronotum; sides straight and parallel on slightly less than basal two-thirds,

broadly rounded behind; striae slightly impressed, particularly the first, the punctures small, deep, close; interstriae smooth, shining, about three times as wide as striae, the punctures not more than half as large as those of striae, in rather definite rows at base, confused toward declivital base. Tenth interspace narrowly carinate from base to declivity; ninth interspace similarly raised on part of posterior half. Declivity beginning at basal third, gradual at first, rather steep on lower half, convex; striae one strongly impressed on upper half; all interspaces appearing narrower than on disc, each bearing a row of sparse, rounded granules. Vestiture consisting of sparse rows of short erect yellow hair on lower portion of declivity.

Female.— Similar to male except frons broadly subconcavely impressed, closely, deeply, rather coarsely punctured, and finely pubescent, the setae forming a sparse brush in impressed area.

Type locality.—Summit, Panama Canal Zone.

Host.—*Cecropia* sp.

Type material.— The male holotype, female allotype and seven paratypes were taken at the type locality during October, 1946, from dead *Cecropia* leaf petioles, by N. L. H. Krauss, lot no. 937. Five additional paratypes bear the same data except they were collected during September, 1946, lot no. 810.

The holotype, allotype and eight paratypes are in the U. S. National Museum; four paratypes are in the collection of the writer.

Eupagiocerus serratus, n. sp.

This species differs conspicuously from those previously known by the coarsely tuberculate elytral declivity.

Male.— Length 2.2 mm., 2.0 times as long as wide; color dark brown.

Frons above antennal bases convex, smooth and polished in central area, reticulate at sides and above, epistomal margin narrowly, weakly elevated with a flattened, rugose-reticulate, sparsely punctured area immediately above; antennal bases connected by a broad, wide, straight, rather high acute carina, subvertical on lower side, moderately sloping, punctured and pubescent on upper side; vestiture moderately abundant, longer and finer below, coarse and relatively short on upper slope of carina, a few setae along lateral margins above. Eye elongate, entire; finely granulate. Antennal scape elongate, bearing a small tuft of long setae; club as in *dentipes* Blandford.

Pronotum about 1.2 times as wide as long, widest at middle; sides almost straight and diverging slightly on basal half, then rather strongly, arcuately narrowed to the broadly rounded anterior margin; surface subshining with minute, rather obscure longitudinal lines in interspatial areas, becoming reticulate laterally and basally, the punctures elongate, rather coarse, close, shallow; glabrous.

Elytra 1.1 times as long as wide; sides straight and parallel on basal two-thirds, posterior profile interrupted by declivital serrations

and a sutural emargination; scutellum circular, convex; anterior margins of elytra acutely elevated along a continuous costa, extending somewhat anteriorly over pronotal base except in scutellar notch; striae impressed, feebly on anterior third, becoming strongly impressed toward declivital margin, the punctures obsolete; interstriae about one and one-half times as wide as striae, flattened basally, becoming strongly convex, almost as high as wide, toward declivity, coarsely reticulate and somewhat irregular on basal third, the punctures fine, confused, sparse on posterior half. Anterior half of side from coxal flange to elevated lateral margin impressed, the impression filled by dense yellow setae.

Declivity steep, flattened; surface granulose-reticulate over both punctures and serrations, striae punctures essentially obsolete, although positions of some punctures indicated; sutural interspace vertically, very strongly elevated, declining in height on lower third, bearing about ten low, posteriorly directed serrations; second interspace with a small pointed serration at declivital base, narrowed, very obscurely raised and unarmed below; third interspace bearing one or two moderately large teeth at declivital base, weakly elevated below and bearing about four serrations, the lower ones sometimes rounded; interspaces four to nine each bearing about two to four rather coarse, posteriorly directed serrations. Vestiture consisting of a few short, fine to coarse setae on declivity.

Female.— Similar to male except frontal carina entirely absent and replaced by a broad, shallow impression; setae on antennal scape less numerous; and declivital sculpture evidently finer.

Type locality.— Paraiso, Panama Canal Zone.

Type material.— The male holotype, female allotype and one female paratype were collected at the type locality on Jan. 25, 1911, by E. A. Schwarz.

The holotype and allotype are in the U. S. National Museum; the paratype is in the collection of the writer.

Hoplitophthorus Wood, corrected spelling

Due to an unfortunate error that occurred in printing the original description of this genus it became necessary to reset the type for part of the paper without my knowledge that it was to be done. As a result the name was incorrectly spelled as "*Hoplitoplithorus*" (Wood, 1961, Great Basin Nat. 21 (1-2):2), instead of *Hoplitophthorus* as indicated in the manuscript and on type labels. To give meaning to the name and to avoid confusion with printed type labels this correction is necessary. The antennal funicle in all four species now included in the genus consists of six segments, not seven as originally reported.

Hoplitophthorus major (Eggers), n. comb.

Following the description of the genus a cotype of *Hoplites major* Eggers (1940, Arb. Morph. u. Tax. Ent. 7:125) was examined and

found to possess the characters of this genus rather than those of the genus to which it had been assigned by Eggers.

Hoplitophthorus boliviae, n. sp.

This species is allied to *major* (Eggers), but is readily distinguished by the presence of a large, impunctate frontal bulla, and by the more finely tuberculate elytral declivity.

Holotype.— Length 1.9 mm., 2.5 times as long as wide; color testaceous, prothorax a slightly darker reddish brown.

Frons convex, transversely impressed just above the rather broad, almost smooth epistomal margin, with a large, smooth, shining, impunctate bulla occupying median half between upper limits of eyes; surface, except on median elevation, subreticulate, with rather large, shallow, moderately close punctures; epistomal margin with a short, obtuse median lobe extending in front of mandibles; vestiture short, inconspicuous except toward epistomal area. Eye shallowly, broadly emarginate; coarsely granulate. Antennal funicle six-segmented; club as in *sentosus*.

Pronotum very slightly wider than long; widest at base, sides almost straight on posterior half, converging slightly toward the broadly rounded anterior margin; surface with faint indications of reticulation, punctures moderately large, rather shallow, moderately close; almost glabrous.

Elytra 1.8 times as long as wide, 2.0 times as long as pronotum; sides straight and parallel on basal three-fourths, broadly rounded behind; scutellum very small; crenulations at bases broad, low, very poorly defined; striae not impressed, the punctures rather small, close; interstriae about one and one-half times as wide as striae, shining, somewhat wrinkled transversely, the punctures in rows, rather large, shallow, close, separated by distances slightly greater than their own diameters. Declivity very steep, convex; striae not at all impressed, all interstriae sparsely tuberculate, tubercles separated by spaces equal to width of an interspace, those on one fine; interspaces six and eight each bearing one or two tubercles; ninth interspace without a continuous costa, and not curved to meet costal margin. Vestiture consisting of sparse, short, interstitial bristles arising from posterior margins of declivital tubercles.

The sexes indistinguishable in the material at hand.

Type locality.— Route between "Boyuiibe to Charagua via Cueva, Ingri, etc., Bolivia."

Type material.— The holotype, presumably a female, and four partly damaged paratypes were taken at the type locality between July 15 and Sept. 1, 1920, by G. L. Harrington.

The holotype and two paratypes are in the U. S. National Museum; the other two paratypes are in the collection of the writer.

Hoplitophthorus cubensis, n. sp.

This species is allied to *sentosus* Wood, but is much smaller, has the discal interstriae of the elytra more irregular, with larger punctures, and has smaller tubercles and longer vestiture on the elytral declivity.

Holotype.— Length 1.5 mm., 2.4 times as long as wide; color reddish brown.

Frons rather strongly convex above, with a transverse impression just above the broad, almost smooth epistomal margin; epistomal margin with an obtuse lobe projecting in front of mandibles; surface smooth, shining, the punctures coarse, deep, rather close. Eye shallowly emarginate; coarsely granulate. Both antennae and one foreleg removed and mounted previously (not at hand for description).

Pronotum very slightly wider than long, widest at base; sides weakly arcuate, converging slightly toward the broadly rounded anterior margin; surface smooth and shining, the punctures coarse, deep, close; almost glabrous.

Elytra 1.5 times as long as wide, 1.8 times as long as pronotum; sides straight and parallel on basal three-fourths, broadly rounded behind; scutellum very small; crenulations broad, low, poorly defined; striae not impressed, the punctures very large, close; interstriae distinctly narrower than striae, subcrenulate toward bases, becoming smooth behind, shining, the punctures rather small, close. Declivity very steep, convex; striae punctures somewhat smaller than on disc, second interspace impressed, the first raised; second interspace narrower than one or three and devoid of tubercles, others each with a few rather small tubercles, those on nine not joined to form a continuous costa which curves to join costal margin near apex of third interspace. Vestiture sparse, confined to declivity, consisting of rather long, slender hairlike setae.

Type locality.— Cayamas, Cuba.

Type material.—The unique holotype, presumably a female, was taken at the type locality by E. A. Schwarz, lot no. 483. It also bears printed labels "Leg mounted" and "Antenna mounted," and the manuscript names *Dolurgides* of Hopkins and *Gonoderus cubensis* of Blackman.

The holotype is in the U. S. National Museum.



1961. "New species of bark beetles (Coleoptera: Scolytidae), mostly Mexican. Part 6." *The Great Basin naturalist* 21, 87–107.

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