NEW SYNONYMY AND NEW SPECIES OF AMERICAN BARK BEETLES (COLEOPTERA: SCOLYTIDAE), PART X

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ABSTRACT.- The following species are named as new to science from Mexico: Corthylus exiguus, lustratus, micacirrus, Dendrocranulus sobrinus, Dendroterus fossifrons, modicus, Gnathotrichus alniphagus, Hylocurus dissimilis, micaceus, scitulus, secus, Phloeoterus burserae, Pseudothysanoes mandibularis, simplex, squameus, truncatus. The genus Phloeoterus, with P. burserae as the type-species, is also named as new.

Sixteen species and one genus of Scolytidae are described as new to science from Mexico on the following pages. They represent the genera Corthylus (3), Dendrocranulus (1), Dendroterus (2), Gnathotrichus (1), Hylocurus (4), Phloeoterus (1), and Psuedothysanoes (4). The new genus, Phloeoterus, is very closely related to Dendroterus (Pityophthorina, Corthylini). The discovery of Gnathotrichus alniphagus in Alnus in Mexico is of particular interest, because of its close relationship to G. retusus (LeConte) and the fact that one of the hosts of G. retusus is Alnus.

Corthylus exiguus, n. sp.

This species apparently represents a new species group that is somewhat intermediate between *collaris* Blandford and *villifer* Wood. It has the declivity much as in *collaris* except that interstriae 3 bears small tubercles. The female from is more nearly like that of *villifer*, but differs as described below.

FEMALE.— Length 1.0 mm (paratypes 0.8–1.0 mm), 2.3 times as long as wide; color brown, except basal half of pronotoum light brown.

Frons rather strongly concave on a subcircular area from eye to eye from epistoma to well above upper level of eyes, upper margin obtusely rounded; surface smooth, shining, almost impunctate in central area, sparse, moderately coarse punctures in upper and lower areas; vestiture sparse, fine, short. Antennal club with shape similar to *collaris*, suture 1 narrowly grooved and septate on mesal third, 2 aseptate, obscurely, incompletely grooved on mesal half.

Pronotum about as in collaris.

Elytra outline similar to *collaris* except much more broadly rounded behind; disc subreticulate, almost subrugose, punctures obsolete except near suture; declivity much steeper, interstriae 1 moderately, narrowly elevated into a carina of uniform height from base to near apex, 2 rather strongly impressed, almost flat, impunctate, shining (punctures on striae 1 and 2 fine, impressed), 3 almost as high as 1, broadly rounded, with punctures replaced by minute granules. Vestiture of a few hairlike setae on declivital interstriae.

MALE.— Similar to female except frons planoconvex, reticulate, almost impunctate; antennal club smaller, more nearly symmetrical; anterior margin of pronotum with a pair of moderately large serrations.

TYPE LOCALITY.— Cuautenango, Guerrero, Mexico.

TYPE MATERIAL.— The female holotype, male allotype, and six paratypes were taken at the type locality on 23–II–1982, 1650 m, S–573, A. Burjos.

The holotype, allotype, and paratypes are in my collection.

Corthylus lustratus, n. sp.

This species is distinguished from *luridus* Blandford by the less densely pubescent, partly glabrous female frons and by the smaller tubercles on the declivity.

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FEMALE.— Length 2.2 mm (paratypes 2.2–2.3 mm), 2.3 times as long as wide; color very dark brown.

Frons similar to *luridus* except median third of lower half of frons glabrous, setae in remaining area shorter, less abundant.

Pronotum and elytral disc as in *luridus;* elytral declivity more evenly convex on upper half, tubercles smaller on all interstriae except 1; declivital setae apparently less numerous, shorter.

TYPE LOCALITY.— "Texecal," Maiote Poztlan, Morelos, Mexico.

TYPE MATERIAL.— The female holotype and five female paratypes were taken at the type locality on 1–XI–1982, 1740 m, B–087, A. Burjos.

The holotype and paratypes are in my collection.

Corthylus micacirrus, n. sp.

This species keys to *rubricollis* Blandford in my monograph, but its small size and coloration cause greater confusion with *collaris* Blandford. From *collaris* it is distinguished by the very different female frons, by the larger elytral punctures, and by the total absence of granules on declivital interstriae 1 and 3.

FEMALE.— Length 2.2 mm, 2.4 times as long as wide; color dark brown, basal half of pronotum lighter brown.

Frons much broader, concavity slightly deeper and extending much higher on vertex; vestiture half as long, finer, much more dense. Antennal club more narrowly rounded at apex, cirrus less than half as long, not attaining middle of apical margin.

Pronotum about as in *collaris*.

Elytra similar to *collaris* except punctures rather coarse (three or more times larger), declivity steeper, declivital striae 3 without any indication of granules, striae 1 and 2 with punctures more strongly impressed, vestiture shorter, less numerous.

TYPE LOCALITY.— Chilapa, Guerrero, Mexico.

TYPE MATERIAL.— The female holotype was taken at the type locality on 23-II-1982, 1690 m, S-345, *Ardisia* sp., T. H. Atkinson and A. Equihua.

The holotype is in my collection.

Dendrocranulus sobrinus, n. sp.

This species is distinguished from *confinis* Wood by the somewhat less strongly impressed male frons, with the median elevation on the vertex lower, by the more coarsely punctured pronotal disc, with accompanying elevations about a third as large, and by the more broadly, more strongly impressed male declivity.

MALE.— Length 2.0 mm (paratypes 1.8–2.1 mm), 2.8 times as long as wide; color dark reddish brown.

Frons as in *confinis* except lower areas less strongly impressed and median elevation on vertex not as high or as sharply defined.

Pronotum as in *confinis* except punctures on posterior half larger (about twice as large near median line), callus (or elevation) accompanying each puncture about a third as large.

Elytra about as in *confinis* except discal punctures smaller (particularly those of interstriae); declivity more strongly, more broadly impressed to striae 3 (transversely, feebly concave).

FEMALE.— Similar to female *confinis* except frons and pronotum less distinctly reticulate, declivity more strongly, broadly flattened.

TYPE LOCALITY.— Veracruz, Veracruz, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and six paratypes were taken on 2–IV–1982, 8 m, *Luffa acutangula*, J. F. Duran. Three specimens not included in the type series, apparently of this species, were taken at Km 56 carr. Xochimilco-Oaxtepec, Morelos, Mexico, 22–I–1980, Cucurbitaceae, T. H. Atkinson.

The holotype, allotype, and paratypes are in my collection.

Dendroterus fossifrons, n. sp.

This species is distinguished from *striatus* (LeConte) by the much larger, deeper excavation on the male frons, by the more scabrous pronotal disc, and by the much coarser elytral vestiture.

MALE.— Length 2.0 mm (paratypes 1.8–2.0 mm), 2.5 times as long as wide; color reddish brown.

Frons resembling *striatus* except median third on central (longitudinal) fourth abrupt-ly, deeply excavated.

Pronotum as in *striatus* except posterior areas with more reticulation, granules slightly larger, more numerous.

Elytra as in *striatus* except usually a bit stouter, interstrial punctures usually larger; declivity steeper on lower half, more broadly convex, and with striae 1 and 2 more distinctly impressed, interstrial setae much stouter but not longer.

FEMALE.— Similar to male except frons with a transverse carina as in female *striatus*.

TYPE LOCALITY.— Estación de Biología, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and 10 paratypes were taken at the type locality on 2–III–1982, 80 m, S–351B, A. Equihua.

The holotype, allotype, and paratypes are in my collection.

Dendroterus modicus, n. sp.

This species is distinguished from *mexi*canus Blandford by the larger size, by the presence of coarse granules on the pronotal disc, by the steeper elytral declivity, and by other characters cited below.

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

Frons about as in *mexicanus*, with episomal calluses equal to less than average size for that species.

Pronotum 1.08 times as long as wide; resembling *mexicanus* except anterior margin more broadly rounded and disc armed by subcrenulate tubercles as in *sallaei* Blandford.

Elytra 1.4 times as long as wide; similar to *mexicanus* except strial punctures on disc much deeper, interstrial punctures closer, declivity much steeper, with interstriae 2 more distinctly impressed and lateral summits more pronounced.

TYPE LOCALITY.— Volcan Ceboruco, Nayarit, Mexico.

TYPE MATERIAL.— The female holotype was taken at the type locality on 5-VII-1965, 1100 m, *Bursera*, S. L. Wood.

The holotype is in my collection.

Gnathotrichus alniphagus, n. sp.

This species is distinguished from *retusus* (LeConte) by the more strongly, much more

extensive aciculation of the frons, by the finer pronotal and elytral punctures, and by the less strongly impressed declivital sulcus. The discovery of this species in *Alnus* greatly magnifies interest in the fact that the closely related *retusus* also has *Alnus* as one of its hosts.

FEMALE.— Length 3.6 mm (paratypes 3.6–3.7 mm), 3.5 times as long as wide; color very dark brown (holotype almost black).

Frons resembling *retusus* except with rather coarse convergent aciculation on more than median two-thirds almost to upper level of eyes; antennal club a bit larger, with sutures more distinctly arcuate.

Pronotum as in *retusus* except punctures on posterior areas slightly smaller, not as close.

Elytra resembling *retusus* except strial punctures smaller, impressed points smaller, less numerous, impressed transverse lines longer, much more abundant; declivity not as steep, sulcus much less strongly impressed, tubercles on lateral summits smaller.

TYPE LOCALITY.— Fierro del Toro in southwest Morelos, Mexico.

TYPE MATERIAL.— The female holotype and four female paratypes were taken at the type locality on 30-VII-1982, 2650 m, B-026, Alnus firmifolia, A. Burjos and E. Saucedo.

The holotype and paratypes are in my collection.

Hylocurus dissimilis, n. sp.

This species is distinguished from *incomptus* Wood by the smaller, stouter average size, by the much more conspicuous, much coarser elytral setae, and by details of the declivity described below.

MALE.— Length 2.0 mm (paratypes 1.8–2.0 mm), 2.4 times as long as wide; color almost black, vestiture pale.

Frons and pronotum essentially as in *incomptus* except setae on pronotal disc much coarser.

Elytra 1.4 times as long as wide; about as in *incomptus* except interstrial granules near base of declivity and on face of declivity smaller, lower half of declivity less strongly impressed, all denticles smaller; interstrial setae from base to apex of stout bristles (almost scalelike, about 10 times as long as

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wide), longest near base of declivity (each as long as distance between rows), distinctly shorter near base, shorter and more slender on lower declivity.

FEMALE.— Similar to male except transverse frontal carina not as sharp or as high; interstrial setae longer, more slender, pointed (but much coarser than in *incomptus*).

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and eight paratypes were taken at the type locality on 4–III–1982, 70 m, S–368, Sapindaceae, A. Equihua.

The holotype, allotype, and paratypes are in my collection.

Hylocurus micaceus, n. sp.

This species is distinguished from *dissimilis* Wood by the smaller size and reddish brown color, by the finer sculpture, and by details of the elytral vestiture and declivity as described below.

MALE.— Length 1.3 mm (paratypes 1.3–1.4 mm), 2.5 times as long as wide; color reddish brown.

Frons similar to *dissimilis* except transverse carina slightly shorter, not as high, surface more finely reticulate.

Pronotum about as in *dissimilis* except more finely sculptured, posterior areas more finely reticulate, tubercles smaller.

Elytra 1.6 times as long as wide; similar to *dissimilis* except strial punctures smaller, interstriae smoother, shining, upper declivity more strongly convex, declivital granules and tubercles slightly larger, apical portion of interstriae 9 more strongly elevated, almost carinate toward apex of elevated area. Vestiture largely restricted to declivity; erect interstrial scales almost as long as distance between rows, blunt, each about eight times as long as wide, scales shorter and sparse on lower declivity.

FEMALE.— Similar to male except transverse frontal carina weak to obscure.

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and four paratypes were taken on 20-VIII-1982, 100 m, S-764, A. Equihua.

The holotype, allotype, and paratypes are in my collection.

Hylocurus scitulus, n. sp.

This species is distinguished from *elegans* Eichhoff by the much steeper male elytral declivity, with many other differences in declivital sculpture, and by the more evenly convex female frons, with the patch of setae on the vertex undivided.

MALE.— Length 1.2 mm (paratypes 2.1–2.4 mm), 2.7 times as long as wide; color dark brown, vestiture pale.

Frons and pronotum essentially as in *ele*gans except pronotal disc less clearly reticulate.

Elytral disc similar to *elegans* except striae more strongly impressed near base of declivity, strial punctures slightly smaller; declivity much steeper than in *elegans*, terminal mucro longer, more acutely pointed, spines in circumdeclivital row much larger, each (1–8) projecting caudad a distance equal to its basal width, strial punctures near margins much larger. Vestiture about as in *elegans* except scalelike setae at margin of declivity forming a row around apex of each circumdeclivital spine (transverse direction) (in *elegans* these scales remain in uniseriate, longitudinal arrangement).

FEMALE.— Similar to female *elegans* except frons more evenly convex, patch of setae on upper area not divided on median line; declivital setae longer, coarser, lower area less broadly impressed.

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and six paratypes were taken at the type locality on 2–VII–1982, 50 m, S–748, Acacia, A. Equihua.

The holotype, allotype, and paratypes are in my collection.

Hylocurus secus, n. sp.

This species represents a new species group. It is distinguished from all other members of the genus by the strongly procurved sutures of the antennal club, by the male circumdeclivital row of tubercles in which tubercle 8 is carinate and almost joins 9, which continues on a declining course to the apex, and by the unique declivity. MALE.— Length 2.2 mm (paratypes 2.0–2.2 mm), 3.6 times as long as wide; color reddish brown.

Frons moderately, transversely impressed at level of antennal insertion, convex above; convex surface rugose-reticulate; a few stout setae almost scalelike.

Pronotum almost as in *aberrans* Wood except disc reticulate and partly rugose anteriorly, with fine, shallow punctures rather numerous, most punctures with a fine granule on their posterior margin.

Elytra 1.6 times as long as wide; sides straight and subparallel on basal four-fifths, very slightly wider at base of declivity; striae not impressed except at base of declivity, punctures rather large, deep, smaller on basal fourth; interstriae slightly narrower than striae, almost smooth, punctures small, shallow, uniseriate; base of declivity abrupt, armed by a circumdeclivital row of tubercles, tubercles rather large, feebly or not projecting behind. Declivity subtruncate, abrupt, very steep, face convex, summit on interstriae 1 below middle; strial punctures in rows on basal half, largely confused below; interstriae somewhat shagreened, without punctures; 1 normal on basal third and apical fifth, greatly widened (about three times) at and below middle and strongly elevated to two summits, upper summit submammiform, lower summit subacutely pointed. Glabrous, except a few very minute strial setae on lower declivity; interstrial scales on disc abraded.

FEMALE.— Similar to male except frons a bit more irregularly convex, punctures more evident, ornamented by rather abundant, coarse, moderately long setae, particularly on upper half; declivity rounded, without circumdeclivital row of tubercles; declivital sculpture about as on disc except interstrial punctures replaced by fine, rounded granules; elytral vestiture consisting of minute strial hair and rows of erect interstrial scales, each scale about as long as distance between rows, widest on distal half, about six times as long as wide.

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and four paratypes were taken at the type locality on 3–III–1981, 100 m, S–359, Leguminosae, A. Equihua. The holotype, allotype, and paratypes are in my collection.

Phloeoterus, n. gen.

This is the fourth genus to be placed in the *Dendroterus* genus group. It is distinguished from *Dendroterus* Blandford by the 5-segmented antennal funicle and by the unique sculpture of the female head.

DESCRIPTION.— Male frons essentially convex, female impressed, armed by tubercles, and ornamented by setae; eye emarginate; antenna as in *Dendroterus* except funicle 5segmented; pronotum with basal and lateral margins rounded; elytra and tibiae about as in *Dendroterus*.

TYPE-SPECIES.PhloeoterusburseraeWood, described below.

Phloeoterus burserae, n. sp.

This species resembles a few *Dendroterus* species, but it is distinguished by the generic characters, most particularly by the unique female frons.

FEMALE.— Length 1.7 mm (paratypes 1.6–1.8 mm), 2.7 times as long as wide; color yellowish brown, anterior slope of pronotum and elytral declivity much darker.

Frons shallowly, broadly concave from epistoma to upper level of eyes, armed on median fourth slightly above upper level of eyes by an acute, transverse carina and by a pair of rather coarse tubercles near lateral margin just above level of antennal insertion; surface smooth, shining, punctures minute, rather sparse, almost uniformly distributed; vestiture sparse and rather short on concave area, much longer and more abundant on upper and lateral margins.

Pronotum as in *Dendroterus eximius* Wood except reticulation and punctures much finer.

Elytra as in *D. eximius* except strial punctures more sharply impressed on disc, punctures becoming obsolete on declivity, elytral vestiture similar but only half as long.

MALE. – Similar to female except male frons resembling male *D. eximius* (weakly convex, unarmed by tubercles or carina, without conspicuous setae).

TYPE LOCALITY.— Estación de Biología, Jalisco, Mexico. TYPE MATERIAL.— The female holotype, male allotype, and 10 paratypes were taken at the type locality on 2-II-83, 100 m, S-865, *Bursera instabilis*, T. H. Atkinson and N. Bautista M.

The holotype, allotype, and paratypes are in my collection.

Pseudothysanoes mandibularis, n. sp.

This species apparently represents a species group previously unreported. The male resembles the female of the *dislocatus* (Blackman) group of species except that the mandibles are elongate (similar to *Gnatholeptus shannoni* Blackman) and the frons is convex.

MALE.— Length 1.1 mm (paratype 1.1 mm), 2.7 times as long as wide; color yellow-ish brown.

Frons convex above, becoming flattened toward epistoma; surface almost smooth, subreticulate, without evident punctures; vestiture sparse, short, inconspicuous. Mandibles elongate, meeting on median line, resembling those of *Gnatholeptus shannoni*.

Pronotum similar to *dislocatus* except anterior margin and anterior slope more broadly rounded.

Elytra similar to *dislocatus* except anterior margin and anterior slope more broadly rounded.

Elytra similar to *dislocatus* except declivity shorter, steeper; interstrial punctures replaced by small, rounded granules on disc and declivity; strial setae more consistently present and slightly longer; on declivity interstrial scales decreasing in width and length toward apex to about half that of setae at base of declivity.

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype and one male paratype were taken at the type locality on 2–VII–1982, 130 m, ultraviolet light, A. Equihua.

The holotype and allotype are in my collection.

Psuedothysanoes simplex, n. sp.

This species belongs to the *phoradendri* Blackman species group and is placed near *furvescens* Wood. From *furvescens* it is distinguished by the smaller average size, by the minute, almost obsolete strial punctures on disc and declivity, and by the minute but conspicuous strial hair.

MALE.— Length 1.1 mm (paratypes 1.1–1.3 mm), 2.4 times as long as wide; color very dark brown, summit of pronotum usually reddish brown, vestiture pale.

Frons similar to *furvescens* except lower half a bit more extensively flattened, central fovea more conspicuous.

Pronotum as in *furvescens* except anterior margin much more broadly rounded, discal and lateral areas smoother, sparse punctures minute.

Elytra more slender than in *furvescens*, with declivity steeper, restricted to shorter area; striae not indicated, punctures almost obsolete, minute punctures each bearing a minute hairlike seta; interstriae indicated by obscure, setiferous, minute punctures; surface almost smooth, shining. Declivity restricted to posterior third, steep, convex; sculpture as on disc except interstrial punctures replaced by minute granules. Vestiture consisting of minute strial hair, and erect interstrial scales; each scale about four times as long as wide, spaced between rows and between scales within a row by slightly more than length of a scale.

FEMALE.— Similar to male except body a bit more slender and elytral interstrial scales slightly longer and up to six times as long as wide.

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and six paratypes were taken at the type locality on 2–II–1983, 30 m, S–856, T. H. Atkinson and N. Bautista.

The holotype, allotype, and paratypes are in my collection.

Psuedothysanoes squameus, n. sp.

This species represents a species group previously unknown in North America. The near absence of sutures in the antennal club, stout body, and unusual elytral scales, particularly in the male, distinguish it from other known species.

MALE.— Length 1.2 mm (paratypes 1.1–1.5 mm), 2.2 times as long as wide; color rather light reddish brown, elytra usually darker.

Frons rather strongly, transversely impressed on lower two-thirds of area below upper level of eyes, strongly convex above; surface granulate above, finely subgranular in impressed area. Antennal club moderately large, oval, without sutures except 1 obscure, 1 and 2 indistinctly marked by setae.

Pronotum about as in truncatus Wood.

Elytra 1.4 times as long as wide, 1.5 times as long as pronotum; striae weakly impressed at base of declivity, punctures moderately coarse, deep; interstriae slightly wider than striae, apparently smooth, shining, punctures small, close, unseriate. Declivity steep, convex, occupying slightly more than posterior third; sculpture much as on disc except strial punctures somewhat smaller; striae end before apex. Vestiture of rows of erect interstrial scales, those on disc short, each about twice as long as wide, distinctly longer and as wide as an interstriae at base of declivity (each at least as wide as long), very closely spaced, decreasing in length toward apex until less than one-third that of longest scales.

FEMALE.— Similar to male except frons concavely excavated on more than median three-fourths from epistoma to slightly above eyes, upper margin of concavity acutely carinate; strial punctures much smaller, not as deep, interstrial punctures obscure; vestiture of elytral disc continued on declivity, without any enlarged scales; elytral declivity not as steep or as broad.

TYPE LOCALITY.— Estación de Biología, Chamela, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype, female allotype, and eight paratypes were taken on 27-V-1982, 50 m, S-485, *Lonchocarpus*, T. H. Atkinson and A. Equihua.

The holotype, allotype, and paratypes are in my collection.

Pseudothysanoes truncatus, n. sp.

This species belongs to the *heliura* Wood species group, but it is unique in having the declivital strial punctures in rows and no interstrial punctures or armature.

MALE.— Length 1.6 mm, 2.1 times as long as wide; color yellowish (anterior) to reddish brown (posterior areas).

Frons as in *heliura* except conspicuous setae broadly scalelike in central and upper areas.

Pronotum about as in *heliura* except summit wider.

Elytra 1.2 times as long as wide, stouter than in *heliura* with declivity much steeper, more abruptly truncate, declivital face less strongly convex; disc with striae not impressed, punctures rather coarse, deep; interstriae smooth, shining, only slightly wider than striae, punctures uniseriate, small becoming replaced by small granules on basal half. Declivity abruptly truncate, not quite vertical; circumdeclivital costa complete, subacute, its summit not smooth, obscurely subserrate; declivital face distinctly, rather broadly impressed near margins, moderately convex on lower half, with an indefinite summit on interstriae 3 just below middle; striae not impressed, punctures in rows, punctures rather coarse at base, gradually decreasing in size, rather small toward apex; interstriae smooth, shining, impunctate (except 3 punctured) 2 gradually constricted until obsolete on lower fourth, 3 expanding slightly in width just below middle, with a row of punctures. Vestiture consisting of rows of short interstrial scales on disc, each about two to four times as long as wide; circumdeclivital costa bearing a row of rather large scales, each about two to four times as long as wide; declivital interstriae 3 bearing a row of long erect scales, each three times as long as those in circumdeclivital row and eight or more times as long as wide, a few similar scales on 5.

TYPE LOCALITY.— Playa Perula, Jalisco, Mexico.

TYPE MATERIAL.— The male holotype was taken on 3-III-1982, 10 m, S-356, *Randia* sp. (Rubiaceae), A. Equihua.

The holotype is in my collection.



1984. "New synonymy and new species of American bark beetles (Coleoptera: Scolytidae), part 10." *The Great Basin naturalist* 44, 113–119.

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