

NEW SYNONYMY AND NEW SPECIES OF AMERICAN BARK BEETLES (COLEOPTERA: SCOLYTIDAE), PART VII¹

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ABSTRACT.—New synonymy of American Scolytidae is proposed as follows: *Coccotrypes cyperi* (Beeson) (= *Thamnurgides indicus* Eggers), *Pityophthorus attenuatus* Blackman (= *Pityophthorus pusillus* Wood), *Pityophthorus digestus* LeConte (= *Pityophthorus aplanatus* Schedl), *Pseudohylesinus sericeus* (Mannerheim) (= *Pseudohylesinus yasamatsui* Nobuchi), *Xyleborus mutabilis* Schedl (= *Xyleborus meridensis* Wood). New names are proposed to replace junior homonyms as follows: *Pityophthorus indigus* for *Pityophthorus indigenus* Wood, 1977 (nec Wood 1976), and *Xyleborus devexus* for *Xyleborus devexus* Wood, 1977 (nec Schedl, 1977). The following species are named as new to science: *Conophthorus echinatae* (Missouri), *Lymanator alaskanus* (Alaska), *Pityophthorus delicatus* (Mexico), *P. rubidus* (Arizona and Mexico), *P. vesculus* (Panama), *Scolytodes comitabilis*, *S. crinalis*, *S. crinitus*, *S. decorus*, *S. genialis*, *S. habilis*, *S. libidus*, *S. perpussilus*, *S. semipunctatus* (Venezuela).

On the following pages some newly discovered cases of synonymy are reported, two new names are proposed to replace junior homonyms, and 14 species are named as new to science. The species new to science represent *Conophthorus* (1), *Lymanator* (1), *Pityophthorus* (3), and *Scolytodes* (9), and were taken in the United States (2), Mexico (1), Panama (1), Venezuela (9), and both USA and Mexico (1).

Coccotrypes cyperi (Beeson)

Thamnurgides cyperi Beeson, 1929, Insects of Samoa, Coleoptera 4(4):230 (Holotype, female; Apia, Samoan Islands, British Mus. Nat. Hist.)

Thamnurgides indicus Eggers, 1936, Ann. Mag. Nat. Hist. (10)17:631 (Holotype, female; Sakalaspur, Mysore, India; British Mus. Nat. Hist.). *New Synonymy*

Two topotypic paratypes of *Thamnurgides cyperi* Beeson were compared directly to my series from Central America and Puerto Rico, part of which had previously been compared to the holotype of *Thamnurgides indicus* Eggers. While occasional specimens are more sparsely asperate on the pronotal disc, as reported by Beeson (1939, Indian For. Rec. 5:294), for *indicus*, most of the specimens are as in his type series of *cyperi*. Since only one species is represented

by this material, the name *indicus* must be placed in synonymy. New localities where this species has been taken include: Keeau, Hawaii, Hawaiian Islands, IV-1978, in *Myrica*; Mataeia, Tahiti Islands, 16-IV-1977.

Pityophthorus attenuatus Blackman

Pityophthorus attenuatus Blackman, 1942, Proc. U. S. Nat. Mus. 92:222 (Holotype, female; Mexico; U. S. Nat. Mus.)

Pityophthorus pusillus Wood, 1964, Great Basin Nat. 24:62 (Holotype, female; 9 miles or 14 km S Zimapan, Hidalgo, Mexico; Wood Coll.). *New synonymy*

The type series of *attenuatus* Blackman and *pusillus* Wood and 113 other specimens from the states of Jalisco and Hidalgo (Mexico) and from Guatemala were examined. While most other characters are constant, there is considerable variation in the length and distribution of the female frontal vestiture. In view of this variation, it appears advisable to place the new *pusillus* in synonymy. Some specimens approach *subsimilis* Schedl so closely that a further review of this complex may be necessary when more material is available for study. At the present time, the host of *subsimilis* (*Pinus*) gives adequate reason for maintaining this as a separate species.

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Pityophthorus digestus (LeConte)

Pityophthorus digestus LeConte, 1874, Trans. Amer. Ent. Soc. 5:71 (Lectotype, sex?; Mojave Desert, California; Mus. Comp. Zool., designated by Bright, 1976, Coleopt. Bull. 30:185)

Pityophthorus aplanatus Schedl, 1930, Canadian Ent. 62:195 (Holotype, female; Athabasca Falls, Alberta; Canadian Nat. Coll.). *New synonymy*

The type series of *Pityophthorus aplanatus* Schedl differs rather significantly from the lectotype and other specimens of *digestus* LeConte from southern California. However, a long series from eastern Wyoming is clearly intermediate and includes specimens almost indistinguishable from Schedl's type. An apparent character cline extends from Alberta to New Mexico. In view of the intergradation, it is necessary to place the junior name, *aplanatus*, in synonymy.

Pityophthorus indigus Wood, new name

Pityophthorus indigus Wood, 1977 (nec Wood, 1976), Great Basin Nat. 37:214 (Holotype, female; Guild, Colorado; Wood Coll.)

While the name *Pityophthorus indigus* Wood (1976, Great Basin Nat. 36:361) was in press, I inadvertently used the same name, cited above, for another species. The new name *Pityophthorus indigus* is proposed to replace the junior homonymy *indigus* Wood, 1977.

Pseudohylesinus sericeus (Mannerheim)

Hylurgus sericeus Mannerheim, 1843, Moskov. Obshch. Isp. Prirody, Otd. Biol. Buil. (Bull. Soc. Imp. Moscow) 16(2):296 (Holotype, female; Sitka, Alaska; Univ. Zool. Mus., Helsinki)

Pseudohylesinus yasamatsui Nobuchi, 1971, Bull. Gov. For. Expt. Sta., Tokyo 238:160 (Holotype, male; Takanishi, Nagano, Japan; Gov. For. Expt. Sta., Tokyo). *New synonymy*

Two paratypes of *Pseudohylesinus yasamatsui* Nobuchi in the Canadian National Collection were compared directly to my homotypes of *sericeus* (Mannerheim) and to other material in the Canadian National Collection. Only one species is represented by this material. It is, therefore, necessary to place the junior name in synonymy.

The introduction of this species into Japan marks the first record of this genus outside western North America.

Xyleborus devexus, new name

Xyleborus devexus Wood, 1977 (Dec.) (nec. Schedl 1977), Great Basin Nat. 37(2):219 (Holotype, female; Homestead, Florida; Wood Coll.)

The name *Xyleborus devexus* (Zeitschr. Österr. Ent. 29, part 1/2, Nov. 1977) was used by Schedl in the same month that I published the same name as cited above. Because Schedl's name was in print a few weeks earlier his name has priority. The new name *devexus* is proposed as a replacement for *Xyleborus devexus* Wood.

Xyleborus mutabilis Schedl

Xyleborus mutabilis Schedl, 1935, Arch. Inst. Biol. Veg. Río de Janeiro 2:92 (Holotype, female; Venezuela; Schedl Coll.)

Xyleborus meridensis Wood, 1971, Brigham Young Univ. Sci. Bull., Biol. Ser. 19(1):38 (Holotype, female; La Carbonera Experimental Forest, Merida, Venezuela; Wood Coll.). *New synonymy*

The female holotypes of *Xyleborus mutabilis* Schedl and *meridensis* Wood were compared directly to one another and to other material in my collection. Since only one species is represented, the junior name *meridensis* must be placed in synonymy.

TAXA NEW TO SCIENCE

Conophthorus echinatae, sp. n.

This species is distinguished from *coniperda* (Schwarz) by the smaller size, by the more slender form, by the more strongly arched elytral declivity, by the coarser pronatal and elytral punctures, and by the weaker transverse frontal impression.

FEMALE.—Length 2.4 mm, 2.5 times as long as wide; color very dark brown.

Frons as in *coniperda* except transverse impression between epistoma and upper level of eyes not as deep.

Pronotum as in *coniperda* except punctures on disc and near base larger their lateral margins almost never bearing a granule.

Elytra as in *coniperda* except punctures larger, interstriae two and one-half to three times as wide as striae, declivital sulcus narrower and less strongly impressed, vestiture averaging slightly longer.

MALE.—Similar to female except lower half of frons with a distinct, median, subcarinate summit.

TYPE LOCALITY.—Winona, Missouri.

TYPE MATERIAL.—The female holotype, male allotype, and five paratypes were taken at the type locality in VIII-1967, from *Pinus echinata* cones.

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

Lymanator alaskanus, n. sp.

This species is distinguished from *decipiens* (LeConte) by the larger size and more slender body, by the different male frons as described below, by the smaller, less deeply impressed pronotal and elytral punctures, and by the different elytral declivity.

MALE.—Length 1.9 mm (paratypes 1.7–1.8 mm), 2.9 times as long as wide; color reddish brown.

Frons strongly convex from slightly below upper level of eyes to vertex, lower two-thirds of area below upper level of eyes transversely impressed (less strongly but much more extensively than in *decipiens*); surface shining, punctures rather fine, moderately close except very sparse on median fourth; vestiture fine, short, inconspicuous.

Pronotum 1.25 times as long as wide; outline as in *decipiens* except sides more strongly converging posteriorly on posterior half; surface smooth, shining, punctures slightly finer, not as deep as *decipiens*.

Elytra 1.8 times as long as wide, 1.8 times as long as pronotum; as in *decipiens* except discal punctures slightly smaller, much less strongly impressed, declivity more evenly convex, striae 1 and 2 not impressed with punctures in rows, smaller than on disc, interstriae 1 much less strongly elevated, 2 not impressed, 2 and 3 each with a sparse row of very fine punctures, their upper margins much more feebly granulate, vestiture finer, shorter, more regularly present from base to apex.

FEMALE.—Similar to male except transverse frontal impression not as deep, upper area less strongly convex.

TYPE LOCALITY.—Bonanza Creek, 30 miles southwest of Fairbanks, Alaska.

TYPE MATERIAL.—The male holotype, fe-

male allotype, and 17 paratypes were taken at the type locality on 18-VII-1978, from a sticky trap baited with Ipenol and Alpha-pinene, No. 51, by R. A. Werner.

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

Pityophthorus delicatus, n. sp.

This species is distinguished from *cacuminatus* Blandford by the larger size, by the much more finely punctured subconcave female frons, by the sparsely punctured discal interstriae 1 and 3, and by other characters indicated below.

FEMALE.—Length 2.0 mm (paratypes 1.7–2.2 mm), 3.0 times as long as wide; color reddish brown.

Frons broadly, shallowly subconcave from epistomal margin to well above upper level of eyes, margins abrupt, about two diameters of a facet from margin of eye; surface smooth, shining, very finely, somewhat closely punctured, interspaces two or more times diameter of a puncture; vestiture abundant, rather long in central area, conspicuously longer on margins, longest setae equal in length to two-thirds distance between eyes.

Pronotum 1.14 times as long as wide; outline as in allied species; posterior areas shining, subreticulate, punctures fine, those on disc with a fine granule on lateral rim.

Elytra 1.9 times as long as wide, 1.7 times as long as pronotum; outline and disc about as in *cacuminatus* except interstriae 1 and 3 with sparse punctures. Declivity steep, moderately bisulcate, moderately acuminate behind; striae 1 and 2 rather finely punctured; interstriae 1 moderately elevated, armed by a row of fine tubercles, 2 moderately impressed, twice as wide as 1, smooth, shining, 3 rather narrowly convex, armed as on 1. Vestiture of fine, short, stria hair to base, odd-numbered interstriae on and near declivity with rather sparse, moderately long setae.

MALE.—Similar to female except frons shallowly, transversely impressed from epistoma to upper level of eyes, upper margin of impressed area with a short, transverse callus or carina, surface rather coarsely punctured, vestiture inconspicuous; declivity

more strongly impressed, tubercles distinctly larger.

TYPE LOCALITY.—Thirty-five miles or 56 km southwest of El Salto, Durango, Mexico.

TYPE MATERIAL.—The female holotype, male allotype, and two paratypes were taken at the type locality on 23-VII-1953, 8400 ft, No. 129, *Pinus*, S. L. Wood. Other paratypes were taken as follows: two, 48 km or 30 miles NE El Salto, No. 133, other data as on type; seven paratypes Durango, Durango, Mexico, 24-III-1974, M. M. Furniss; one, 96 km or 60 miles W Durango, Durango, Mexico, 5-VI-1965, No. 29, *Pinus*, S. L. Wood; one, 5 km or 3 miles W El Salto, Durango, Mexico, 19-VI-1965, No. 40, *Pinus*, S. L. Wood; four, 29 km or 18 miles N San Juanito, Chihuahua, Mexico, 4-V-1977, *Pinus*, M. M. Furniss; nine, 9 km or 6 miles E Volcan Paracutin, 19-VI-1965, No. 82, *Pinus*, S. L. Wood; ten, 32 km or 20 miles NW Comitán, Chiapas, Mexico, 17-VI-1964, No. 709, *Pinus*, S. L. Wood; five, Chelum Chaul, Cuchmatanes, Huchuetenango, Guatemala, 19-IV-1972, E. W. Clark; three, Patzum, Guatemala, 26-IX-1974, *Pinus tenuifolia*, R. Lühl; six, Tegucigalpa, Honduras, 9-III-1966, *Pinus oocarpa*.

In the Honduras series the elytral declivity is slightly steeper and the female frons is more nearly convex, with the frontal punctures averaging slightly larger.

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

Pityophthorus rubidus, n. sp.

This species is distinguished from *spadix* Blackman by the stouter body, by the reddish brown color, by the confused discal punctures and the less strongly acuminate elytral apex, and by other characters indicated below.

FEMALE.—Length 2.3 mm (paratypes 2.3–3.0 mm), 2.6 times as long as wide; color reddish brown.

Frons planoconvex to slightly above eyes, ascending toward epistoma on lower fifth particularly on median third, margins rounded, about three diameters of a facet from margin of eye; surface smooth, shining, rather finely, closely, uniformly punctured,

interspaces in central area equal in width to diameter of a puncture, less than half as great in marginal areas; vestiture of fine, moderately abundant long hair, longest setae about equal in length to half distance between eyes.

Pronotum 1.12 times as long as wide; widest at base, sides on posterior two-thirds feebly arcuate, moderately converging to rather narrowly rounded anterior margin; anterior margin armed by about 10–14 low serrations; summit at middle, rather high; posterior areas smooth, shining, with numerous impressed points, punctures coarse, deep, close. Glabrous on disc, sparse hair on sides and asperate area.

Elytra 1.6 times as long as wide, 1.5 times as long as pronotum; sides almost straight and parallel on basal three-fourths, rather abruptly rounded at base of declivity, strongly acuminate behind; striae 1 weakly impressed, rows obscurely visible, largely confused, punctures rather coarse, deep, close. Declivity very steep, rather strongly bisulcate, strongly acuminate at apex; striae 1 and 2 rather coarsely punctured; interstriae 1 moderately elevated, armed by a row of small tubercles, 2 twice as wide as 1, almost smooth, shining, impunctate, 3 on upper half slightly higher than 1, armed by 6–10 rather coarse, closely spaced tubercles. Vestiture on posterior third of disc and declivity long, moderately abundant on all interstriae.

MALE.—Similar to female except frons transversely impressed to upper level of eyes, a strong transverse carina at upper level of eyes, surface coarsely punctured, vestiture inconspicuous; declivital tubercles slightly larger.

TYPE LOCALITY.—Madera Canyon, Santa Rita Mountains, Arizona.

TYPE MATERIAL.—The female holotype, male allotype, and 68 paratypes were taken at the type locality on 1-V-1978, from *Pinus engelmanni* branches, by me. Other paratypes were taken as follows: six, 35 km or 23 miles W Durango, Durango, Mexico, 4-VI-1965, No. 14, *Pinus* probably *engelmanni*, S. L. Wood; three, 48 km or 30 miles NE El Salto, Durango, Mexico, 23-VII-1953, No. 133, *Pinus*, S. L. Wood.

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

Pityophthorus vesculus, n. sp.

This species is distinguished from *acuminatus* (Schedl) by the smooth, shining, more coarsely punctured pronotum, by the much stouter, almost spatulate interstitial setae on the elytral declivity, and by the more abundant much longer pubescence on the female frons.

FEMALE.—Length 1.5 mm (paratypes 1.3–1.4 mm), 3.0 times as long as wide; color reddish brown.

Frons flattened to well above eyes, margins rounded, separated from eye by distance equal to width of three facets; epistomal margin gradually, distinctly elevated; surface smooth, shining, densely, finely punctured; vestiture of fine, moderately abundant, uniformly distributed, setae little if any longer at margins. Eyes normal, rather finely faceted.

Pronotum 1.2 times as long as wide; sides almost straight and parallel on basal two-thirds, rather broadly rounded in front; anterior margin armed by about 12 low serrations; summit rather indefinite, anterior to middle; asperities on anterior slope confused; posterior areas smooth, shining, punctures moderately coarse, numerous impressed points present. Glabrous except on asperate area.

Elytra 1.8 times as long as wide, 1.5 times as long as pronotum; sides straight and parallel on basal two-thirds, rather strongly acuminate behind; striae not impressed, except 1 feebly, punctures rather coarse, close, deep; interstriae slightly wider than striae, smooth, shining, with a few obscure impressed points, impunctate except near declivity. Declivity steep, shallowly bisulcate; striae 1 and 2 with punctures almost as coarse as on declivity; interstriae 1 distinctly elevated, granules minute, almost obsolete, 2 shallowly impressed, as wide as 1, smooth, shining, impunctate, 3 as high as 1, armed on upper half by two small, pointed tubercles. Vestiture confined to declivity, of stout rather short, interstitial setae, absent on 2.

MALE.—Similar to female except frons

convex, a slight transverse impression on lower third, surface smooth, shining, coarsely punctured, vestiture inconspicuous; declivital sulcus stronger, tubercles on interstriae 1 and 3 distinctly larger, declivital vestiture much stouter, almost spatulate.

TYPE LOCALITY.—Fort Clayton, Canal Zone, Panama.

TYPE MATERIAL.—The female holotype, male allotype, and three paratypes were taken at the type locality on 22-XII-1963, 30 m, No. 325, from the bark of a bole 25 cm in diameter (large, simple leaves 25 cm long), by me.

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

Scolytodes comitabilis, n. sp.

This species is distinguished from *fulmineus* Wood by the smaller size, by the more coarsely asperate anterior slope of the pronotum, by the coarser striae and interstitial punctures, and by the different female frons.

FEMALE.—Length 1.5 mm (paratypes 1.5–1.7 mm), 2.5 times as long as wide; color very dark brown.

Frons rather strongly convex from just above epistoma to vertex; surface smooth, shining to upper level of eyes, reticulate above eyes, punctures sparse, minute; vestiture short, sparse, inconspicuous, limited to lateral thirds on lower half.

Pronotum outline as in *fulmineus*, anterior two-fifths much more coarsely asperate, basal half more coarsely, more deeply punctured.

Elytral outline as in *fulmineus* except declivity steeper, striae punctures coarser (interstriae as wide as striae), fine interstitial punctures distinct, regularly spaced, vestiture slightly more abundant (sparse rows on odd-numbered interstriae, mostly on posterior half).

Male not recognizable, although probably present in type series.

TYPE LOCALITY.—Merida, Merida, Venezuela.

TYPE MATERIAL.—The female holotype and 16 paratypes were taken at the type locality on 22-IX-1969, 1700 m, No. 9, *Clusia* twigs, by me.

The holotype and paratypes are in my collection.

Scolytodes crinalis, n. sp.

This species is distinguished from the remotely allied *varius* Wood by the smaller size, by the stouter, more finely punctured pronotum, and by other characters cited below.

FEMALE.—Length 2.3 mm (paratypes 2.0–2.5 mm), 2.2 times as long as wide; mature color almost black.

Frons moderately, transversely impressed from epistoma to level of antennal insertion, convex above, a rounded median tubercle on epistoma; surface reticulate, punctures fine, rather sparse; vestiture moderately short, rather sparse, inconspicuous.

Pronotum 1.1 times as long as wide; widest in front of middle, sides feebly constricted on basal half, rather broadly rounded in front; surface uniformly, rather strongly reticulate, punctures fine, rather deep, spaced by two to four diameters of a puncture. Vestiture rather abundant, fine, moderately long, semirecumbent.

Elytra 1.5 times as long as wide, 1.8 times as long as pronotum; outline as in *varius*; surface smooth, shining, stria punctures in obscure rows, punctures small; interstriae with punctures similar to those of striae, confused, about five times as wide as striae. Declivity steep, convex, sculpture as on striae except punctures half as large. Vestiture of rather abundant, moderately long, recumbent stria and interstria hair, and poorly defined interstria rows of longer, erect hair, those on odd-numbered interstriae longer and more regular.

MALE.—Similar to female except frontal impression reduced, convexity extending almost to median epistomal tubercle; elytral vestiture slightly longer; erect interstria setae less well defined.

TYPE LOCALITY.—La Carbonera Experimental Forest, 50 km (airline) NW Merida, Merida, Venezuela.

TYPE MATERIAL.—The female holotype, male allotype, and eight paratypes were taken at the type locality on 14-X-1969, 2500 m, No. 50c, from *Clusia* branches, by me.

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

Scolytodes crinitus, n. sp.

This species is distinguished from *punctifer* Wood by the reticulate more finely punctured pronotum, by the finer elytral punctures, and by the longer, more nearly erect elytral setae.

FEMALE.—Length 1.4 mm (paratypes 1.3–1.6 mm), 2.2 times as long as wide; mature color almost black.

Frons as in *punctifer* except with fewer setae.

Pronotum as in *punctifer* except surface reticulate, punctures much smaller, spaced by one to three diameters of a puncture (less than one in *punctifer*).

Elytra about as in *punctifer* except stria punctures slightly larger, deeper, interstria punctures all uniseriate, half as large as those of striae, erect interstria setae in more definite rows, finer, slightly longer, all setae in more definite rows.

MALE.—Similar to female except frons more strongly convex.

TYPE LOCALITY.—El Laurel Experimental Farm, 12 km southeast of Caracas, Venezuela.

TYPE MATERIAL.—The female holotype, male allotype, and 72 paratypes were taken at the type locality on 1-V-1970, No. 464, from a leguminous vine, by me.

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

Scolytodes decorus, n. sp.

This species is distinguished from the remotely allied *habilis* Wood by the narrower, smoother, more shining frons, by the more coarsely, deeply punctured elytra, and by all elytral vestiture being in recognizable rows.

MALE.—Length 1.5 mm (paratypes 1.5–1.7 mm), 2.25 times as long as wide; color very dark brown.

Frons slightly narrower than *habilis*, its lower half not reticulate, smooth, shining, punctures larger, deeper.

Pronotum 1.0 times as long as wide; surface strongly, uniformly reticulate, punc-

tures as large as *habilis* but less dense, spaced on basal half by one to two diameters of a puncture.

Elytra 1.5 times as long as wide, 1.9 times as long as pronotum; striae and interstriae in recognizable rows, striae not impressed, punctures rather coarse, deep, close; interstriae as wide as striae, punctures almost as large and as close; surface smooth and shining. Declivity steep, convex; as on disc except punctures slightly smaller, rows less evident. Vestiture of rather short, subequal striae and interstitial hair, always erect on interstriae, half of those on striae erect, half semirecumbent, longest setae equal to two-thirds length of distance between interstitial rows.

FEMALE.—Similar to male except almost all striae setae erect. Frons not visible in allotype, concealed by pronotum.

TYPE LOCALITY.—Forty km east Canton, Barinas, Venezuela.

TYPE MATERIAL.—The male holotype, female allotype, and two paratypes (one with head and prothorax missing) were taken at the type locality on 8-III-1970, 70 m, No. 332, from *Nectandra* branches, by me.

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

Scolytodes genialis, n. sp.

This species is distinguished from *tolimanus* (Schedl) by the smaller size, by the different pronotal tubercles, by the more numerous impressed lines on the elytral disc, by the smaller elytral punctures, and by the more evenly convex declivity.

FEMALE.—Length 2.0 mm (paratypes 1.8–2.3 mm), 2.3 times as long as wide; mature color almost black.

Frons broadly convex except for slight, short, transverse impression, immediately above epistoma, a distinctly elevated, obtuse median carina on lower half; surface reticulate, punctures rather coarse, moderately close, distinct; vestiture short, sparse, inconspicuous.

Pronotum outline as in *tolimanus*; surface reticulate, punctures on basal half small, deep, spaced by one to two diameters of a puncture, most with a shining lateral margin, these margins on anterior half form

rounded granules that gradually increase in size and replace punctures before anterior margin. Vestiture of fine, rather short hair, often abraded.

Elytra 1.4 times as long as wide, 1.6 times as long as pronotum; disc modestly wrinkled on basal third, smooth, shining behind; striae with punctures in somewhat obscure rows; interstriae four times as wide as striae, punctures slightly smaller than those of striae, in slightly irregular rows. Declivity steep, broadly convex; punctures confused, smaller than on disc. Vestiture consisting of short, recumbent striae and interstitial hair on disc and declivity, some interstitial setae on disc distinctly longer and tending to be semierect.

MALE.—Similar to female except frons more distinctly convex, lower half of carina more stringly elevated.

TYPE LOCALITY.—Thirty km north of Merida, Merida, Venezuela.

TYPE MATERIAL.—The female holotype, male allotype, and 106 paratypes were taken at the type locality on 8-I-1970, 2200 m, No. 224, from a cucurbit vine, by me. Four paratypes bearing similar data were No. 223 in *Podocarpus* twigs.

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

Scolytodes habilis, n. sp.

This species is distinguished from *hirsutus* Wood by the more slender form, by the more strongly reticulate, much more coarsely punctured pronotum, by the shorter vestiture, and by other characters.

FEMALE.—Length 1.7 mm (paratypes 1.5–1.8 mm), 2.3 times as long as wide; color almost black.

Frons as in *hirsutus* except less strongly convex, with no indication of a median summit, vestiture shorter, less conspicuous.

Pronotum 1.04 times as long as wide; outline about as in *hirsutus* except more slender; surface strongly, uniformly reticulate, coarsely, closely, rather deeply punctured on basal half, punctures becoming smaller on anterior third, without any indication of granules; spaces between punctures on basal half less than diameter of a puncture, one to three times as great on an-

terior fourth. Vestiture half as long as in *hirsutus*.

Elytra 1.5 times as long as wide, 1.7 times as long as pronotum; discal punctures much as in *hirsutus*, except twice as large. Declivity shorter and much steeper than in *hirsutus*, surface obscurely subreticulate, punctures confused, close, conspicuously smaller than on disc. Vestiture rather abundant, recumbent, each setae about equal in length to three times diameter of a puncture; a few setae on odd-numbered interstriae erect, but little if any longer.

MALE.—Similar to female except frons more distinctly convex; erect setae on odd-numbered discal interstriae more numerous and slightly longer.

TYPE LOCALITY.—Thirty km east of Merida, Merida, Venezuela.

TYPE MATERIAL.—The female holotype, male allotype, and 11 paratypes were taken at the type locality on 8-I-1970, 2500 m, No. 220, from *Croton*; 3 paratypes are from La Mucuy, 20 km W Merida, Merida, Venezuela, 12-XI-1969, 2500 m, No. 129, tree branch. All were taken by me.

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

Scolytodes libidus, n. sp.

This species is distinguished from *genialis* Wood by the smaller size, by the more slender form, by the coarser pronotal punctures which lack a lateral, smooth, shining margin, by the recognizable rows of striae and uniseriate interstitial punctures to base, and by the longer, more erect elytral hair.

FEMALE.—Length 1.8 mm (paratypes 1.5–1.8 mm), 2.4 times as long as wide; color almost black.

Frons as in *genialis* except slightly narrower, slightly more convex.

Pronotum 1.07 times as long as wide; as in *genialis* except punctures on basal half mostly without lateral shining margin.

Elytra 1.4 times as long as wide, 1.45 times as long as pronotum; as in *genialis* except disc smooth, striae punctures slightly larger, declivital punctures slightly larger, vestiture longer, more abundant, mostly erect; longest interstitial setae as long as distance between rows, spaced within a row

by half that distance; striae setae on declivity tend to be recumbent.

MALE.—Similar to female except asperities on anterior margin of pronotum slightly larger, more conspicuous.

TYPE LOCALITY.—Rancho Grande, Pittier National Park, Aragua, Venezuela.

TYPE MATERIAL.—The female holotype, male allotype, and 15 paratypes were taken at the type locality on 9-IV-1970, 1100 m, No. 407, Cucurbit vine. Other paratypes from Venezuela include: 3 from No. 421 and 15 from No. 422 with all other data as on the type; 22 from Merida, Merida, 11-X-1969, 1700 m, No. 1, Cucurbit vine. All were taken by me.

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

Scolytodes perpusillus, n. sp.

This species is distinguished from *libidus* Wood by the much smaller size, by the absence of a frontal carina, by the finer pronotal punctures, and by the spatulate, erect interstitial setae.

FEMALE.—Length 1.2 mm (paratypes 1.1–1.3 mm), 2.3 times as long as wide; color very dark brown.

Frons rather strongly convex, a longitudinally short, distinct, transverse impression immediately above epistoma; surface reticulate, punctures moderately abundant, rather coarse; vestiture short, sparse, inconspicuous.

Pronotum 0.88 times as long as wide; widest at middle; sides moderately arcuate, broadly rounded in front, basal margin bisinuate; surface reticulate; anterior slope with low, isolated, rounded granules; basal half with rather abundant, moderately fine, shallow punctures; vestiture of rather abundant, short, fine hair.

Elytra 1.3 times as long as wide, 1.6 times as long as pronotum; sides weakly arcuate on basal two-thirds, rather broadly rounded behind; basal third of disc slightly wrinkled; striae not impressed, punctures small, shallow; interstriae three to four times as wide as striae, rather smooth, subshining, punctures uniseriate, smaller than those of striae, shallow. Declivity steep, convex; sculpture much as on disc, with

punctures finer, those on interstriae somewhat confused. Vestiture of fine rather short recumbent hair; approximately every third or fourth interstitial seta an erect, subspatulate bristle, these erect setae forming an interstitial row, erect setae as long as distance between rows, spaced within a row by one to three times this distance.

MALE.— Similar to female except erect interstitial setae more regular, very slightly longer.

TYPE LOCALITY.— Rancho Grande, Pittier National Park, Aragua, Venezuela.

TYPE MATERIAL.— The female holotype, male allotype, and eight paratypes were taken at the type locality on 9-IV-1970, 1100 m, No. 443, from a tree branch by me.

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

Scolytodes semipunctatus, n. sp.

This species is distinguished from *punctatus* Eggers by the much more finely punctured frons, pronotum, and elytra and by the much shorter vestiture.

FEMALE.— Length 2.0 mm (paratypes 1.7–2.0 mm), 2.2 times as long as wide; col-

or very dark brown, elytra on some specimens lighter brown.

Frons as in *punctatus* except punctures smaller, not as deep; lateral areas more strongly reticulate.

Pronotum outline and form as in *punctatus* except surface more strongly, more uniformly punctured, punctures less than half as large, shallow, not clearly formed, vestiture slightly shorter.

Elytra outline and form as in *punctatus* except stria punctures two-thirds as large, interstitial punctures half as large, punctures even smaller on declivity, vestiture half as long except one-third as long on declivity.

MALE.— Similar to female except frons slightly narrower, median summit more evident, obscurely more strongly convex.

TYPE LOCALITY.— Merida, Merida, Venezuela.

TYPE MATERIAL.— The holotype, allotype, and 10 paratypes were taken at the type locality (between stations 1 and 2 of the Teleférico) on 27-II-1970, 2500 m, No. 331, from the bole of a small tree having simple leaves up to 50 cm in length, by me.

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