

The Canadian Entomologist

Vol. 104

Ottawa, Canada, November 1972

No. 11

NEW SPECIES OF SCOLYTIDAE (COLEOPTERA) FROM MEXICO, WITH ADDITIONAL NOTES

III. TRIBE PITYOPHTHORINI (EXCEPT *PITYOPHTHORUS*)

DONALD E. BRIGHT, JR.

Entomology Research Institute, Canada Department of Agriculture, Ottawa

Abstract

Can. Ent. 104: 1665-1679 (1972)

Seventeen new species of Scolytidae from Mexico are described. The new species represent the genera *Neodryocoetes* (4), *Pseudopityophthorus* (9), *Pityoborus* (3), and *Prognathotrichus* n. gen. (1). New locality records for several previously described species are included.

This is the third part of a continuing series of papers describing the new species of Scolytidae from Mexico in the Canadian National Collection of Insects (CNC). The names are being made available now in order that they may be included in a forthcoming monograph of this family. The new species included represent the genera *Neodryocoetes* (4), *Pseudopityophthorus* (9), *Pityoborus* (3), and *Prognathotrichus* new genus (1). All type material is in the CNC.

Neodryocoetes tuberculatus n. sp.

Figs. 1, 2

FEMALE. Length 1.4 to 1.6 mm, 2.7 times longer than wide; reddish brown.

Frons evidently flattened but entire surface obscured by a fringe of dense yellowish setae, these curved downward from above and sides and extending to epistomal margin. Eye 2.3 times longer than wide, indented to depth of two facets. Antennal club large, elongate-oval, 1.3 times longer than wide; first suture strongly arcuate, reaching to near midpoint of club, remaining sutures indistinct, indicated by rows of short setae.

Pronotum 1.1 times longer than wide; sides weakly arcuate, weakly constricted before anterior margin; anterior margin broadly rounded, bearing about 12 distinct serrations; anterior slope bearing 5 concentric, arcuate rows of asperities, those in the most anterior row the largest, each row behind decreasing in size, each asperity bearing at its posterior base a short, backward pointing, hairlike seta; posterior area brightly shining, bearing fine, shallow punctures and minute points; vestiture consisting of very short, yellowish, hairlike setae.

Elytra 1.5 to 1.6 times longer than wide; sides nearly parallel, broadly rounded behind; striae not impressed, marked by large, shallow punctures, punctures in first striae slightly more deeply impressed, those remaining rather confusedly placed, especially near base; interspaces also bearing large punctures, especially on disk. Declivity convex; first and third interspaces slightly elevated, bearing from 4 to 6 small, acute tubercles, these larger on third interspaces; second interspace impunctate, smooth, unarmed; first and second striae more deeply impressed than on disk. Vestiture consisting of very short strial and interstitial setae on disk, those in interspaces becoming longer and spatulate over declivity.

MALE. Similar in size and proportions to female. Frons convex, transversely impressed above epistoma, this impression divided by a weak longitudinal carina; surface above this impression weakly punctured and reticulate, more strongly punctured above eyes and on vertex. Pronotum and elytra essentially as in female, except first and third declivital interspaces more strongly elevated and toothed.

TYPE MATERIAL. Holotype female, allotype, and 39 paratypes were collected at Lake Catemaco, Vera Cruz, Mexico, 16-20 June 1969, by D. E. Bright (CNC No. 12,622). The host plant is unknown.

REMARKS. This species seems to be remotely related to *N. cubensis* Blackman described from Cuba. Adults of *N. tuberculatus* differ from those of *N. cubensis* by the very densely pubescent female frons and by the tuberculate first and third declivital interspaces.

Neodryocoetes macer n. sp.

Fig. 3

FEMALE. Length 1.3 to 1.4 mm, 2.8 times longer than wide; reddish brown.

Frons, eyes, and antennae as in *N. tuberculatus* described above.

Pronotum 1.2 times longer than wide; shape, sculpture, and pubescence as in *N. tuberculatus*.

Elytra 1.6 to 1.7 times longer than wide, essentially as in *N. tuberculatus* except strial punctures not evident or only very slightly so, entire surface minutely reticulate and sometimes bearing very shallow, obscure punctures. Declivity as in *N. tuberculatus* except tubercles on first and third interspaces slightly smaller.

MALE. Similar in size and proportions to female. Similar to male of *N. tuberculatus* except body smaller and strial punctures obscure on elytra.

TYPE MATERIAL. Holotype female, allotype, and 9 paratypes were collected at Ejipantla, 5 miles south of San Andres Tuxtla, Vera Cruz, Mexico, on 5 May 1969, from an unknown vine by D. E. Bright (CNC No. 12,623).

REMARKS. This species is very closely related to *N. tuberculatus* described above but the adults of *N. macer* differ by their smaller size and by the lack of strial punctures on the elytra.

Neodryocoetes leptus n. sp.

Fig. 4

FEMALE. Length 1.2 to 1.3 mm, 2.9 times longer than wide; light reddish-brown.

Frons evenly concave; surface dull, evenly minutely reticulate; periphery of cavity bordered by moderately long, yellowish, hairlike setae, those on upper border about as long as antennal scape and usually directed downward; epistoma weakly elevated, smooth and shining. Eye about 2.3 times longer than wide, emargination extending inward about one-third of width. Antennal club nearly circular, about as long as wide; first suture arcuate, extending less than one-third of club length, chitinized; other sutures indicated only by arcuate rows of setae.

Pronotum 1.2 to 1.3 times longer than wide; sides nearly parallel from base to middle, evenly rounded toward the broadly rounded anterior margin; anterior margin bearing an elevated, weakly serrate ridge; anterior slope bearing numerous, low, scattered asperities, these not arranged in any discernible order; posterior portion shining, faintly punctured and reticulate; vestiture consisting of short, erect, yellowish setae, each seta arising from posterior base of asperity.

Elytra 1.1 to 1.2 times longer than wide; sides parallel on basal two-thirds, then broadly rounded behind; striae punctured in regular rows, only the first stria impressed, the punctures shallowly impressed if at all; interspaces about as wide as striae, minutely reticulate and very weakly rugulose, impunctate. Declivity evenly convex; first interspace rather distinctly elevated, bearing a row of fine granules; third interspace faintly elevated, lower than first, bearing a row of very fine granules; strial punctures much fainter than on disk. Vestiture consisting of very short hairlike setae, each seta arising from a strial puncture.

MALE. Similar in size and proportions to female. Frons convex, surface rather dull, minutely punctate; epistoma weakly elevated, smooth and shining; vestiture consisting of short, scattered, yellowish setae, these longer on epistoma. Pronotum and elytra similar to female except granules on first and third declivital interspaces smaller or sometimes absent.

TYPE MATERIAL. Holotype female, allotype, and 13 paratypes collected at Ejipantla, 5 miles south of San Andres Tuxtla, Vera Cruz, Mexico, 5 May 1969, from an unknown vine by D. E. Bright (CNC No. 12,624).

REMARKS. This series was associated in the same vine with the previous species *N. macer* and also with the following species *N. vinealis*. Adults are very slender, apparently among the most slender beetles of any known species of *Neodryocoetes* from Mexico (except *N. tenuis* Blackman, which is 3.02 times longer than wide). This new species does not appear to be closely related to *N. tenuis*.

Neodryocoetes vinealis n. sp.

FEMALE. Length 1.8 to 1.9 mm, 2.7 times longer than wide; reddish brown.

Frons flattened; surface brightly shining, with numerous small punctures; periphery of flattened area bearing a fringe of long, incurved, yellowish, hairlike setae, the longest of these reaching from vertex to a little more than half the distance to epistomal region, remaining setae on flattened area very short; epistoma slightly elevated, shining; epistomal margin broadly emarginate, bearing a fringe of dense, yellowish setae. Eye 2.1 times longer than wide, indented to third row of facets. Antennal club nearly circular, as long as wide; first suture strongly arched, occupying about the basal one-fourth of club; remaining sutures obscure; surface rather densely pubescent.

Pronotum 1.1 times longer than wide; sides arcuate, very weakly constricted before the broadly rounded anterior margin; anterior margin not serrate but just behind margin there is a short row of 3 to 5 broad, blunt asperities, the bases of these sometimes contiguous; anterior slope densely asperate, the asperities low, blunt, scattered in no apparent order, these asperities continuing to well behind middle as transverse rugosities; posterior area densely punctured, bearing rugosities or granules between punctures; median line broad, impunctate, slightly elevated.

Elytra 1.6 times longer than wide; sides parallel on basal three-fourths, broadly rounded behind; striae, except first, not impressed, punctured in irregular rows, some punctures slightly offset into interspaces, the punctures small, slightly impressed; interspaces shining, reticulate, about as wide as or slightly wider than the striae. Declivity convex; first interspace slightly elevated, devoid of granules; second interspace flat; third interspace convex, devoid of granules; all strial punctures reduced in size; striae 1 and 2 weakly impressed. Vestiture consisting of very fine, very short, strial setae and longer, very sparse, interstitial setae, these narrowly spatulate and more numerous on declivity.

MALE. Not present in material at hand.

TYPE MATERIAL. Holotype female and 2 paratypes collected at Ejipantla, 5 miles south of San Andres Tuxtla, Vera Cruz, Mexico, on 5 May 1969, from an unknown vine by D. E. Bright (CNC No. 12,625).

Pseudopityophthorus montanus n. sp.

Figs. 5, 6

MALE. Length 1.6 to 2.0 mm, 3.0 times longer than wide; black to reddish black.

Frons flattened, completely covered by a rather dense brush of yellowish setae, these longer and incurved on periphery; surface usually with a glabrous, impunctate, longitudinal space nearly dividing the brush into two equal parts, sometimes this smooth space is nearly obsolete, area around smooth space rather closely, densely punctured. Eye 2.8 times longer than wide; emargination extending inwards almost half the width. Antennal club rather large, 1.2 times longer than wide; first 2 sutures arcuate, the first more so, third suture indicated by an arcuate row of setae.

Pronotum 1.1 to 1.2 times longer than wide; sides weakly arcuate; anterior margin broadly rounded, bearing numerous, low serrations; anterior slope covered with numerous, scattered asperities, surface weakly punctured between asperities; posterior portion smooth, shining, bearing small, widely separated, impressed punctures and numerous, minute points; vestiture consisting of short, rather stout, erect setae.

Elytra 1.8 times longer than wide; sides parallel on basal three-fourths, then broadly rounded behind; striae punctured in regular rows, the punctures rather small, usually separated by a distance greater than 2.0 times their diameter; interspaces brightly shining, densely, finely sculptured by minute, scattered points and fine scratches. Declivity evenly convex; first and third interspaces very weakly elevated, bearing 5 to 8 fine granules; second interspace unarmed; strial punctures slightly smaller and less deeply impressed than on disk. Vestiture consisting

of very fine strial setae and, on declivity, of longer interstitial setae, these absent from second interspace except at top of declivity.

FEMALE. Almost indistinguishable from male, but setae on frons shorter and longitudinal smooth space broader.

TYPE MATERIAL. Holotype male, allotype, and 24 paratypes were collected from the summit of Mt. Tzontehuitz, 9500 ft, Chiapas, Mexico, 12 June 1969, by D. E. Bright from *Quercus* sp. (CNC No. 12,626).

REMARKS. This species is evidently related to *P. hondurensis* Wood, since adults of both species have similar frontal vestiture in both sexes. Those of *P. montanus* differ from those of *P. hondurensis* by their larger size, by the broad, longitudinal, glabrous, smooth space on the frons and by the long interstitial declivital setae which are absent on interspace 2.

Pseudopityophthorus hirsutus n. sp.

Fig. 7

MALE. Length 1.3 to 1.5 mm, 3.1 to 3.4 times longer than wide; reddish brown.

Frons flattened; surface finely punctured and reticulate, usually divided by a fine longitudinal line; vestiture consisting of fine, yellowish setae scattered over surface and a brush of longer, coarser setae originating on vertex above eyes; epistoma elevated slightly, smooth and shining. Eye about 2.0 times longer than wide, rather deeply emarginate. Antennal club oval, 1.4 to 1.5 times longer than wide; first two sutures nearly straight, third suture indicated by an arcuate row of setae near tip.

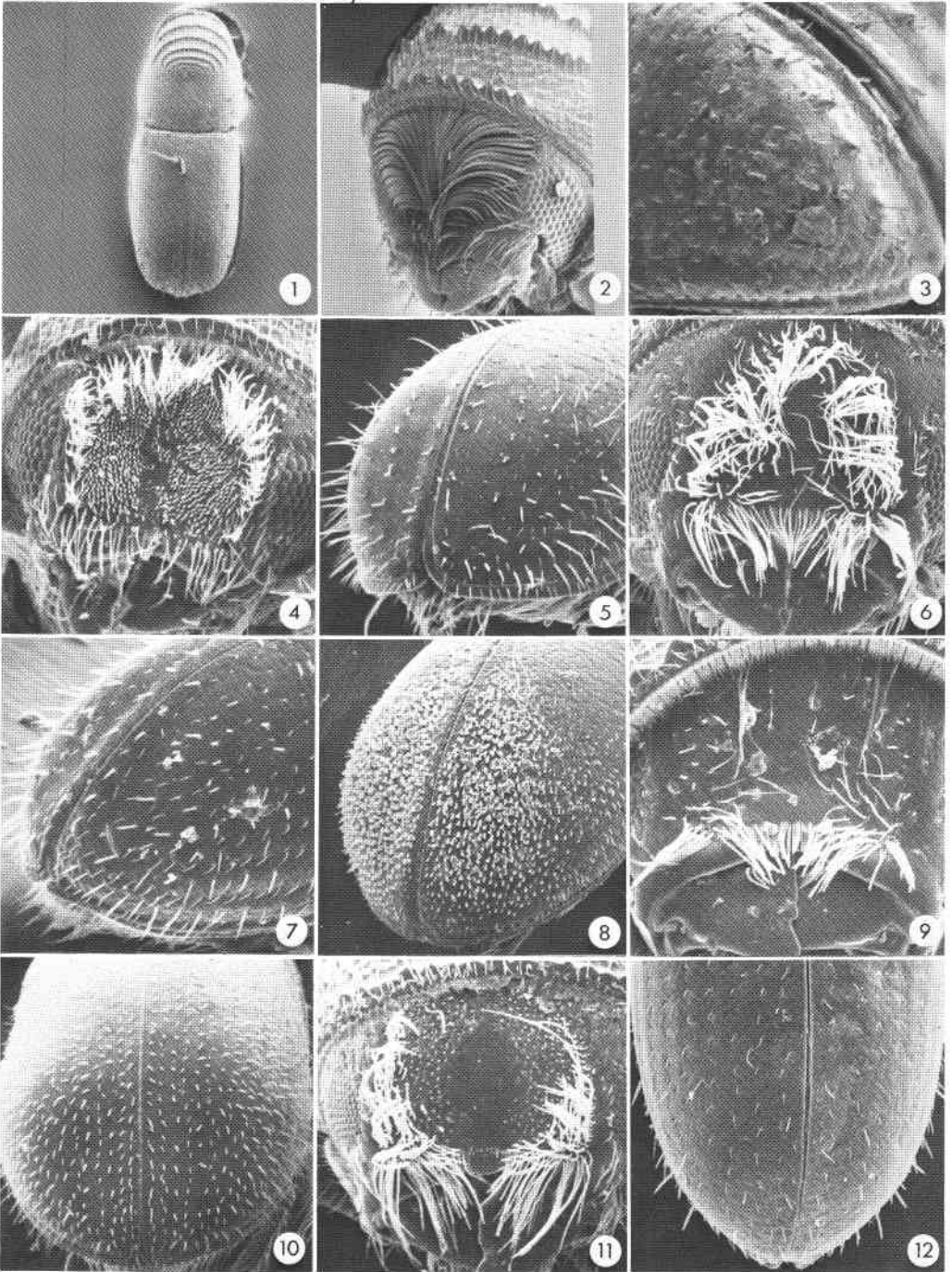
Pronotum 1.2 times longer than wide; sides arcuate, faintly constricted before the rather narrowly rounded anterior margin; anterior margin bearing about 10 erect asperities, these somewhat longer in median area; anterior slope bearing numerous, isolated asperities; posterior area smooth, opaque, with small, shallow punctures, surface between punctures bearing minute lines and points. Vestiture restricted to anterior slope, consisting of rather long, erect, hairlike setae, each seta arising from posterior base of an asperity.

Elytra 1.7 to 1.8 times longer than wide; sides parallel on basal two-thirds, narrowly rounded behind, the apex of elytra slightly produced, visible from above in most males; striae not impressed, punctured in regular rows, the punctures obsolete, very small and shallow; interspaces slightly opaque, minutely rugose or with numerous fine lines, these nearly completely obscuring the strial punctures. Declivity convex; first striae impressed, punctures almost invisible; first interspace weakly elevated; second interspace very weakly impressed; surface as on disk. Vestiture consisting of very fine setae and longer interstitial setae, the interstitial setae abundant only on and near declivity, slightly flattened, about as long as the width of an interspace and present on all declivital interspaces except second.

FEMALE. Similar in size and proportions to male. Frons more roughly punctured, with a transverse impression above epistoma and a weak longitudinal carina above this. Elytral apex more strongly produced than in male.

TYPE MATERIAL. Holotype male, allotype, and 7 paratypes were collected 5 miles southeast of Teopisca, Chiapas, Mexico, on 9 July 1969, from *Quercus* sp. by D. E. Bright (CNC No. 12,627).

REMARKS. This species is closely related to *P. asperulus* (Leconte) and evidently also to *P. tenuis* Wood. Adults differ from those of *P. tenuis* in a number of respects. The interstitial setae of adults of *P. hirsutus* are shorter, more numerous and on all interspaces except the second; in our specimens of *P. tenuis* (det. by Wood) the setae on the interspaces are longer than the width of an interspace, more sparse, and are placed only on alternate interspaces. In addition, adults of *P. hirsutus* differ by the more finely sculptured elytral interspaces, by the even more obscure strial punctures, and by the less shiny and less distinctly punctured posterior area of the pronotum. Adults differ from those of *P. asperulus* by the longer setae on the male frons, by the smaller frontal elevation on the female frons, and by their distribution.



FIGS. 1-12. 1-2, *Neodryocoetes tuberculatus*: 1, dorsal aspect; 2, ♀ frons. 3, *N. macer*, declivity. 4, *N. leptus*, ♀ frons. 5-6, *Pseudopityophthorus montanus*: 5, declivity; 6, ♂ frons. 7, *P. hirsutus*, declivity. 8-9, *P. squamosus*: 8, declivity; 9, ♂ frons. 10-11, *P. comosus*: 10, declivity; 11, ♂ frons. 12, *P. acuminatus*, elytral apex.

***Pseudopityophthorus squamosus* n. sp.**

Figs. 8, 9

FEMALE. Length 2.1 to 2.4 mm, 2.6 times longer than wide; reddish brown.

Frons concave, median area of upper margin of concavity more prominently elevated; surface brightly shining, shallowly punctured, the punctures coalescing, forming shallow grooves, especially in median area; epistoma smooth, impunctate in median portion; vestiture consisting of sparse, short, hairlike setae on surface, these longer and denser on lower lateral angles, longer yellowish setae on deeply emarginate epistomal margin. Eye about 2.3 times longer than wide, deeply emarginate. Antennal club small, oval, 1.5 times longer than wide; first suture weakly arcuate, second almost transverse, third indicated by arcuate row of short setae.

Pronotum about as long as wide, widest at posterior angles; sides arcuate, weakly constricted just before the rather narrowly rounded anterior margin; anterior margin with about 12 erect asperities, the median ones longer; anterior slope bearing numerous, scattered asperities, these smaller and broader toward summit, surface between asperities reticulate; posterior area opaque, densely minutely reticulate, punctures obscure but visible, these small, shallow; vestiture consisting of short, hairlike setae, each seta arising from posterior base of asperity and directed toward summit.

Elytra 1.5 times longer than wide; sides parallel on basal two-thirds, then broadly rounded behind; striae either very weakly evident or not evident; entire elytral surface minutely punctate and rugose, in some specimens faint shallow punctures arranged in rows (striae?) can be seen. Declivity convex; interspace 2 weakly impressed; surface as on disk except sculpturing stronger. Vestiture consisting of short, yellowish, hairlike setae scattered rather densely over disk and sides, these changing to short, yellowish, scalelike setae on declivity, these scalelike setae very abundant, of equal length, almost obscuring surface details.

MALE. Not evident in the material at hand.

TYPE MATERIAL. Holotype female and 2 paratypes were collected 9 miles west La Ciudad, Durango, Mexico, on 11 June 1964, by L. A. Kelton (CNC No. 12,628). Six additional paratypes: 1, same data as holotype except collected 10 June 1964; 2, 10 miles W. El Salto, Durango, Mexico, 26 June 1964, H. F. Howden; 1, Buenos Aires, 10 miles west La Ciudad, Durango, Mexico, 22 June 1964, Howden and Martin, at light; 1, Puerto Buenos Aires, 37 miles west El Salto, Durango, Mexico, 10 June 1964, H. F. Howden; 1, 5 miles north Mazatlan, Sinaloa, Mexico, 14 August 1964, H. F. Howden.

REMARKS. Adults of this species are easily distinguished by the elytral pubescence which abruptly changes from hairlike setae on the disk to scalelike setae on the declivity. As far as I can determine this species does not seem to be closely related to any currently described species. Adults differ from those of all other species by the combination of the stout body and the small antennal club with weakly arcuate sutures, plus the vestiture described above.

***Pseudopityophthorus comosus* n. sp.**

Figs. 10, 11

MALE. Length 2.2 to 2.4 mm, 2.9 times longer than wide; color variable but usually elytra light brown to reddish-brown, black on suture and on lateral areas, pronotum dark brown to black, summit reddish.

Frons flattened, densely pubescent, the setae on periphery long, incurved; surface punctate and reticulate except on a rather broad, longitudinal, median smooth space; epistoma weakly arcuate, fringed with long, yellowish setae. Eye 2.3 times longer than wide, emargination extending inward about one-half eye width. Antennal club oval, 1.2 to 1.3 times longer than wide; first two sutures strongly arcuate; first two segments occupying slightly more than one-half of total club length.

Pronotum about 1.2 times longer than wide; sides weakly arcuate, faintly constricted before the broadly rounded anterior margin; anterior margin bearing numerous, low serrations; anterior slope with numerous, scattered asperities, these erect on anterior portion, becoming smaller and lower toward summit; posterior portion rather densely punctured, the punctures

deep, close, separated by a distance equal to or less than their own diameters, surface between punctures smooth, brightly shining and with minute points; vestiture consisting of short, upward pointing setae on asperate portion.

Elytra 1.6 to 1.7 times longer than wide; sides parallel on basal three-fourths, broadly rounded behind; striae not impressed, weakly punctured in obscure rows; interspaces rugose, punctured, the large punctures equal in size to striae punctures and scattered, causing difficulty in distinguishing striae and interstriae. Declivity convex, weakly impressed on each side of suture; striae more obvious, the punctures visible, placed in regular rows; first interspace weakly elevated. Vestiture consisting of short striae and interstriae hairlike setae, the latter scattered, slightly longer on disk and becoming narrowly flattened on declivity and in more regular rows.

FEMALE. Similar in size and proportions to male. Frons convex, weakly impressed on epistoma, setae rather dense, of equal length; surface punctate-granulate, minutely reticulate except for longitudinal smooth space. Pronotum and elytra as in male.

TYPE MATERIAL. Holotype male, allotype, and 31 paratypes were collected along highway 131, 178 km south of Oaxaca, Oaxaca, Mexico, 7500 ft, on 11 May 1971, from *Quercus* sp. by D. E. Bright (CNC No. 12,629). Eighteen additional paratypes were collected along highway 131, 115 miles south of Oaxaca, Oaxaca, Mexico, 6000 ft, on 27–30 May 1971, from *Quercus* sp. by D. E. Bright, and 4 paratypes were collected along highway 131, 184 km south of Oaxaca, Oaxaca, Mexico, 6300 ft, on 12 May 1971, from *Quercus* sp. by D. E. Bright.

REMARKS. This species appears to be related to *P. micans* Wood but adults of *P. comosus* are easily distinguished by the longer, more abundant elytral setae. These setae are scattered on the elytral disk but are in regular rows on the declivity; those in the interspaces are narrowly scalelike and those in the striae are hairlike.

Pseudopityophthorus acuminatus n. sp.

Fig. 12

MALE. Length 1.4 to 1.6 mm, 3.2 times longer than wide; black to reddish brown.

Frons flattened from eye to eye, weakly concave in center, rather densely pubescent over entire surface, setae on periphery somewhat longer and incurved; surface shining, very weakly punctured. Antennal club nearly circular, about as long as wide; first suture straight, second weakly arcuate.

Pronotum 1.1 times longer than wide, widest behind middle; sides weakly arcuate, very weakly constricted if at all before the broadly rounded anterior margin; anterior margin bearing about 10 acute, erect serrations; anterior slope with numerous, scattered, erect asperities in median portion; summit prominent; posterior portion dull, minutely reticulate with widely scattered, shallow points.

Elytra 2.0 times longer than wide; sides parallel on basal two-thirds, converging to the narrowly rounded elytral apex; sutural apex slightly produced, visible from above; striae (except first) not impressed, punctured in nearly regular rows, the punctures rather large, shallowly impressed; interspaces about as wide as striae, surface rather dull, minutely reticulate, bearing minute lines and points. Declivity convex, unmodified; sutural interspace very weakly elevated; apex weakly produced. Vestiture consisting of minute, striae, hairlike setae and slightly longer, more erect, interstriae setae, the latter mostly confined to near declivital region and usually placed only in interspaces 1, 3, 5, 7, and 9, these setae shorter than the width of an interspace.

FEMALE. Similar in size and proportions to male. Frons flattened, bearing a longitudinal, short, blunt carina in center, devoid of dense pubescence; surface rougher, more deeply punctured than in male. Pubescence on declivity somewhat longer and more abundant than in male.

TYPE MATERIAL. Holotype male, allotype, and 17 paratypes were collected 8 miles northeast of San Cristobal de las Casas, Chiapas, Mexico, on 15 May 1969, from *Quercus* sp. by D. E. Bright (CNC No. 12,630).

REMARKS. *Pseudopityophthorus acuminatus* is evidently more closely related to *P. tenuis* Wood than to other species. Its adults differ from those of *P. tenuis* by their slightly larger size, by the more obscure elytral striae, and by the expanded sutural apex which is visible from above, causing the elytral apex to be more narrowly rounded.

***Pseudopityophthorus aesculinus* n. sp.**

Figs. 13, 14

FEMALE. Length 1.9 to 2.2 mm, 2.8 times longer than wide; reddish brown to light brown, usually with pronotum darker reddish brown.

Frons convex, very weakly flattened on lower half, weakly transversely impressed above epistoma and very weakly impressed on a smooth, median, circular area just above epistoma; surface granulate-punctate except on the circular smooth area above epistoma; vestiture consisting of rather long, downward pointing, yellowish setae scattered over surface, those on upper periphery denser, those on epistoma long, dense, extending over at least three-quarters of the mandibles. Antennal club rather large, elongate-oval, 1.4 times longer than wide; first two sutures broadly arcuate; all segments equal in width.

Pronotum very slightly longer than wide, widest at about middle; sides arcuate, rather distinctly constricted before the broadly rounded anterior margin; anterior margin bearing 17 to 20 erect, acute asperities, all about equal in size; anterior slope steeply declivous, bearing numerous, erect, acute asperities, these scattered over surface, extending beyond middle on sides; posterior area rather densely punctate-granulate, the punctures close, of moderate size, interspaces between punctures coarsely, minutely punctate or minutely granulate, more distinctly granulate near summit.

Elytra 1.7 times longer than wide; sides parallel on anterior two-thirds, rather broadly rounded behind; surface shining, striae and interstriae bearing punctures of equal size, those in interspaces scattered, resulting in difficulty in distinguishing striae or interstriae; surface between punctures bearing minute lines. Declivity evenly convex; second interspace slightly impressed; otherwise not essentially modified except for type of vestiture. Vestiture rather abundant, consisting of recumbent, hairlike, or narrowly scalelike setae scattered over discal surface, these setae shorter, stouter on declivity; sutural and third interspace bearing a row of erect, flattened scalelike setae on disk; fifth, seventh, and ninth interspaces bearing a row of scalelike setae on posterior half of elytra only; sometimes second and fourth interspaces bear a few slightly longer, more erect scalelike setae on declivity.

MALE. Similar in size and proportions to female. Frons flattened, surface granulate-punctate, smooth and weakly impressed on a median circular area just above epistoma; vestiture abundant, the setae arising from upper margin above eye level long, dense, extending slightly beyond base of mandibles and usually completely concealing the surface features.

TYPE MATERIAL. Holotype female, allotype, and 24 paratypes were collected 70 miles north of Oaxaca, Oaxaca, Mexico, 8600 ft, on 18 May 1971, from *Quercus* sp. by D. E. Bright (CNC No. 12,631). Twenty-five additional paratypes are from 40 miles south of Valle Nacional, Oaxaca, Mexico, 10,000 ft, 25 May 1971, from *Quercus* sp. by D. E. Bright.

REMARKS. This species appears to be most closely related to *P. opacicollis* Blackman. Adults of *P. aesculinus* differ, however, from those of *P. opacicollis* by their generally smaller average size, by the rows of erect, scalelike setae in the fifth, seventh, and ninth interspaces near the declivity, by the less steep elytral declivity and by the less deeply impressed second declivital interspace.

***Pseudopityophthorus convexus* n. sp.**

Fig. 15

MALE. Length 1.7 to 2.0 mm, about 2.7 to 2.8 times longer than wide; summit of pronotum, elytral disk, legs, and antennae reddish, lateral areas and head black.

Frons flattened, weakly impressed above epistoma; surface shining, rather densely punctured except on a weakly elevated, median callus and on a smooth space just above epistomal

margin; vestiture dense, often obscuring surface details, consisting of very long, dense, downward pointing, yellowish, hairlike setae arising from entire periphery of flattened area, the longest setae reaching from vertex to slightly beyond base of mandibles. Antennal club oval, about 1.4 times longer than wide; first two sutures moderately arcuate, septate, third suture strongly arcuate, indicated only by a row of setae.

Pronotum about 1.2 times longer than wide; sides weakly arcuate, very faintly constricted before the broadly rounded anterior margin; asperities on anterior margin small, of equal size, very numerous; anterior slope bearing numerous, scattered, erect, acute asperities; posterior area bearing larger punctures, these distinctly impressed, separated by a distance equal to or slightly greater than their own diameters, surface between punctures shining, with numerous, impressed points.

Elytra about 1.5 times longer than wide; sides parallel on basal three-quarters, broadly rounded behind; disk densely, confusedly punctured, making distinction between striae and interspaces difficult, the punctures rather small, close, surface between punctures shining. Declivity convex; sutural interspace weakly elevated; second interspace depressed slightly; third interspace very weakly elevated, but not as high as sutural interspace. Vestiture abundant, consisting of recumbent, scalelike and hairlike setae and erect, scalelike setae, the setae on anterolateral portions of disk hairlike, those on sutural interspace laterally to third interspace on disk scalelike and more erect; on posterior portion and declivity all setae scalelike and erect, those on first, third and fourth declivital interspaces longer, wider and more erect, sometimes also evidently longer on fourth declivital interspace.

FEMALE. Similar in size and proportions to male. Frons convex, weakly transversely impressed above epistoma; surface granulate-punctate, vestiture sparser and much shorter than in male. Pronotum and elytra as in male.

TYPE MATERIAL. Holotype male, allotype, and 9 paratypes were collected along highway 131, 115 miles south of Oaxaca, Oaxaca, Mexico, 6000 ft, on 27-30 May 1971, from *Quercus* sp. by D. E. Bright (CNC No. 12,632).

REMARKS. This species seems to be most closely related to *P. pulverus* Blackman. Adults of *P. convexus* differ from those of *P. pulverus* by the presence of slightly longer scales in declivital interspaces 1 and 3, by the more convex female frons, and by the less deeply impressed second declivital interspace.

Pseudopityophthorus truncatus n. sp.

Figs. 16, 17

MALE. Length 1.9 to 2.4 mm, 3.0 times longer than wide; summit of pronotum, elytral disk, legs and antennae reddish, remainder of body black.

Frons flattened to very weakly concave; surface rather densely punctured, sometimes with an impunctate circular area above epistoma or an impunctate median longitudinal space; epistoma elevated, broad, impunctate; vestiture rather abundant but not masking surface as in most other species in the genus, consisting of moderately long, yellowish, erect, hairlike setae arising from punctate area and absent from smooth median areas if these areas present, setae at lateral angles above epistoma and along epistoma much longer, extending to midpoint of mandibles or slightly beyond. Antennal club 1.2 times longer than wide; widest through third segment; first two sutures arcuate, septate, third suture arcuate, indicated by a row of setae.

Pronotum as long as wide, widest behind middle; sides weakly arcuate, faintly constricted before broadly rounded anterior margin; asperities on anterior margin rather small, basally contiguous, those on anterior slope larger, erect, acute, and rather numerous; posterior area rather strongly punctured, the posterior edges of punctures somewhat elevated giving a rugose appearance to surface, surface between punctures with minute points.

Elytra 1.6 times longer than wide; sides parallel on basal two-thirds, narrowly converging to the very broadly rounded, broadly acuminate posterior margin; striae (except first) not impressed, punctured in regular rows, the punctures rather large, close; interspaces slightly wider than striae, sutural interspace punctured to base, remaining interspaces punctured only near declivity, discal surface bearing minute points and lines. Declivity abrupt, very steep; surface depressed between suture and elevated, rounded lateral elevations; sutural interspace broad, rather strongly elevated, usually bearing a row of very minute granules; second and

third interspaces flattened, unarmed; entire declivital surface opaque; lateral elevations weakly granulate. Vestiture consisting of minute, hairlike, strial setae and much longer, hairlike, interstitial setae, the latter confined to posterior area and absent from declivital interspaces 2, 3, and 4; on sutural interspace shorter setae sometimes extend to base.

FEMALE. Evidently exactly like male, distinguishable only by abdominal segmentation.

TYPE MATERIAL. Holotype male, allotype, and 36 paratypes were collected along highway 131, 184 km south of Oaxaca, Oaxaca, Mexico, 6300 ft, on 12 May 1971, from white pine (?) by D. E. Bright (CNC No. 12,633). Three additional paratypes were collected 8 miles north of Ocosingo, Chiapas, Mexico, on 2 June 1969, from *Quercus* sp. by D. E. Bright.

REMARKS. This species is not closely related to any species of *Pseudopityophthorus* known to me except the following. No descriptions could be found that mentioned the distinctive features of the elytral declivity.

Adults of this species can be recognized by the very similar frons of both sexes and by the abrupt, generally flattened elytral declivity that is rather strongly impressed on each side of the elevated sutural interspace; the lateral margins of the declivity are arcuately elevated and broadly rounded, bearing rather long, stout, hairlike setae in the interspaces except on interspaces 2 to 4.

The host listed for the series from Oaxaca is most likely erroneous or accidental; this species probably occurs normally in various species of oak (*Quercus*).

Pseudopityophthorus curtus n. sp.

Fig. 18

ADULT. Length 1.4 to 1.7 mm, 2.7 times longer than wide; dark reddish-brown, lighter reddish on pronotal summit and legs.

Frons as in *truncatus* except setae somewhat shorter. Antennal club 1.2 times longer than wide; widest through third segment; sutures arcuate as in *truncatus*.

Pronotum as in *truncatus* except posterior portion more sparsely punctured, interspaces between punctures less rugose, more brightly shining.

Elytra 1.6 times longer than wide; sides as in *truncatus*, posterior margin broadly rounded, not broadly acuminate as in *truncatus*; striae and interspaces as in *truncatus*. Declivity essentially as in *truncatus* except less deeply impressed on each side of suture, and sutural interspace not as strongly elevated. Vestiture as in *truncatus* except third declivital interspace bearing a row of setae throughout, and interstitial setae on declivity shorter, about 1.5 times longer than interstitial width.

TYPE MATERIAL. Holotype and 4 paratypes were collected 8 miles north of Ocosingo, Chiapas, Mexico, on 2 June 1969, from *Quercus* sp. by D. E. Bright (CNC No. 12,634).

REMARKS. This species is related to *P. truncatus* described above but the adults are distinguished by the less deeply impressed elytral declivity with a less strongly elevated sutural interspace, by the presence of a row of setae in the third declivital interspace, and by their smaller body size.

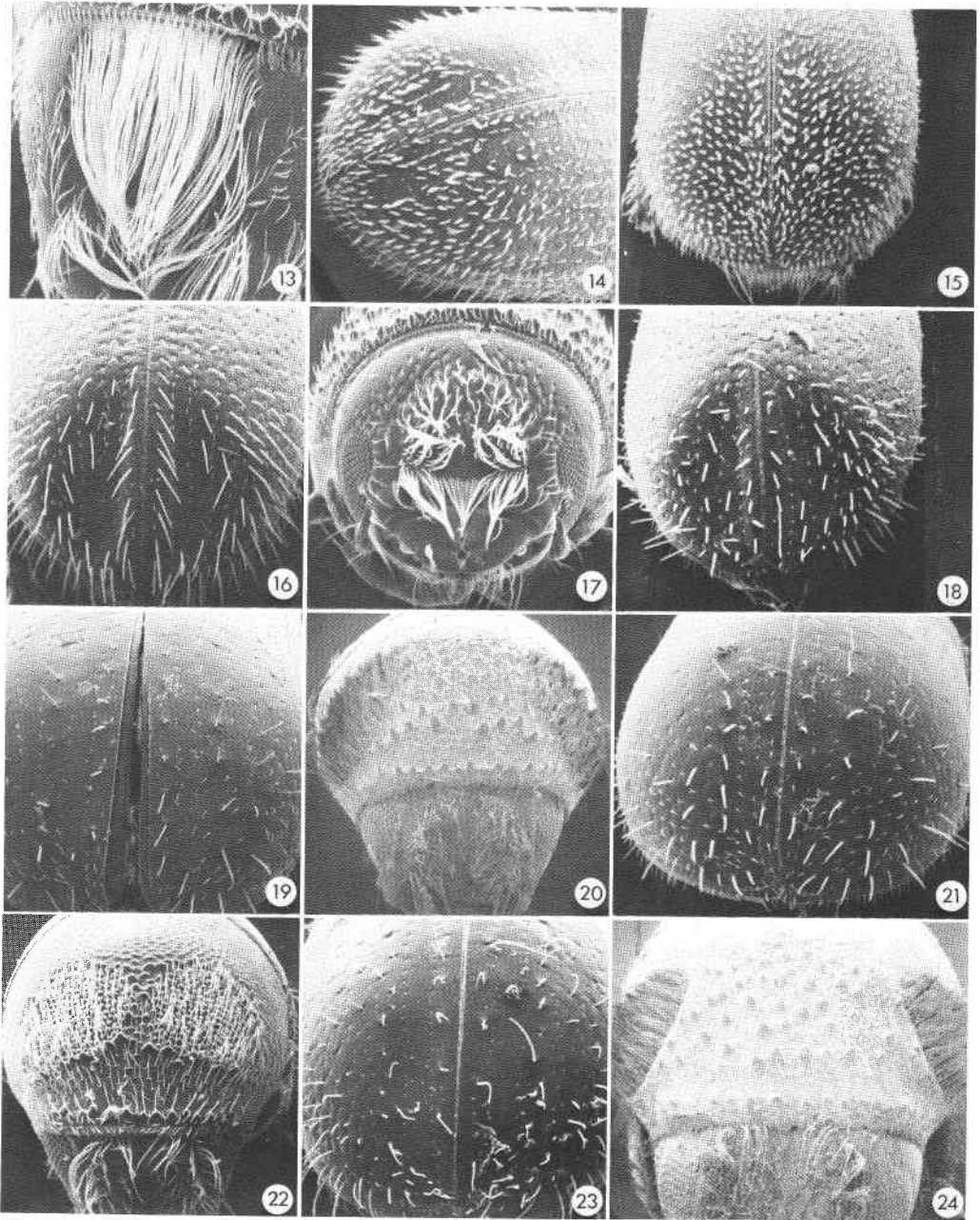
The sexes are indistinguishable in the material at hand.

Pityoborus immitus n. sp.

Figs. 19, 20

FEMALE. Length 2.5 to 2.9 mm, 2.7 times longer than wide; reddish brown.

Frons flattened over most of surface, weakly concave in median portion; surface dull, minutely reticulate and faintly, sparsely punctured, periphery of concavity densely, finely punctured, each puncture bearing a rather long, hairlike seta, a few shorter setae in median portion; epistoma weakly elevated, shining. Eye 2.2 to 2.3 times longer than wide, about one-half divided by emargination. Antennal club 1.4 times longer than wide; first two sutures arcuate, chitinized.



FIGS. 13-24. 13-14, *Pseudopityophthorus aesculinus*: 13, ♂ frons; 14, declivity. 15, *P. convexus*, declivity. 16-17, *P. truncatus*: 16, declivity; 17, ♂ frons. 18, *P. curtus*, declivity. 19-20, *Pityoborus immitus*: 19, declivity; 20, anterior portion ♀ pronotum. 21-22, *P. severus*: 21, declivity; 22, anterior portion ♀ pronotum. 23-24, *P. ramosus*: 23, declivity; 24, anterior portion ♀ pronotum.

Pronotum as long as wide; sides weakly arcuate; anterior margin broadly rounded, bearing about 12 acute teeth; anterior slope bearing numerous, isolated asperities, surface between asperities minutely reticulate; pubescent patches elongate-oval, about 1.7 times wider than long, the two patches separated dorsally by a distance equal to the greatest length of one patch; posterior portion bearing sparse, shallow, fine points, surface between points minutely reticulate.

Elytra about 2.0 times longer than wide; sides parallel on basal three-fourths, broadly rounded behind; striae, except first, not impressed, punctured in regular rows, the punctures large, shallow; interspaces about twice as wide as striae, surface minutely reticulate, sometimes with a few very fine, snallow punctures, dull. Declivity convex; first interspace elevated slightly, bearing a row of fine granules; second interspace very weakly impressed, unarmed; third interspace convex, very weakly elevated if at all, bearing a row of fine granules similar to those on first interspace; interspaces 5, 7, and 9 bearing a few fine granules and setae. Vestiture consisting of a few, very fine, interstitial setae on disk, these more numerous and longer on declivity.

MALE. Similar in size and proportions to female. Frons flattened, surface very dull, minutely reticulate, bearing a few, fine, hairlike setae and obscure punctures on periphery of flattened area; pubescent patches on prothorax absent; granules on first and third interspaces slightly larger than in female.

TYPE MATERIAL. Holotype female, allotype, and 15 paratypes were collected 68 km west of Durango, Durango, Mexico, on 18 June 1971, from shaded-out branches of *Pinus engelmanni* Carr. by D. E. Bright (CNC No. 12,635). One additional paratype was collected from *Pinus leiophylla* Schiede and Deppe at the same locality and 9 additional paratypes were collected 70 km west of Durango, Durango, Mexico, on 14 June 1971, from the same host by the same collector.

REMARKS. In Wood's key (1958), adults of this species would be determined as *P. intonsus* Wood. Adults of *P. immitus* differ from those of *P. intonsus* by the much less deeply impressed second declivital interspace, by the greater dorsal distance between the pronotal patches of pubescence, and by the lack of a median elevation on the frons of the male.

Pityoborus severus n. sp.

Figs. 21, 22

FEMALE. Length 2.1 to 2.5 mm, 2.8 times longer than wide; reddish brown.

Frons flattened, weakly concave in median portion, gradually ascending to epistomal margin; surface dull, minutely reticulate except for an impunctate, shining, circular, median space just above epistoma, periphery of flattened area weakly punctured, the punctures shallow, rather small, each bearing a long, hairlike seta; epistomal margin shining, fringed by short, yellowish setae. Eye about 2.3 times wider than long, emargination extending inwards about half the length. Antennal club elongate-oval, 1.4 to 1.5 times longer than wide; first two sutures distinct, arcuate.

Pronotum as long as wide; sides weakly arcuate, weakly constricted before broadly rounded anterior margin; anterior margin bearing about 12 to 14 small asperities; anterior slope bearing only about 10 to 15 asperities, these confined to anterior border of pubescent patches and area between patches, one or two of these may be displaced slightly, surface between asperities dull, reticulate; pubescent patches circular, separated dorsally by a distance less than one-third the length of one patch, with setae rather sparse and underlying surface rather densely granulate; sometimes patches appear contiguous; posterior area dull, minutely punctate-reticulate, the punctures very fine and shallow.

Elytra 1.9 to 2.0 times longer than wide; sides parallel on basal two-thirds, broadly rounded behind; striae, except first, not impressed, punctured in nearly regular rows, the punctures shallow, separated by a distance equal to the diameter of a puncture; interspaces wider than striae, surface full, minutely reticulate. Declivity convex; first and third interspaces very weakly elevated, convex, bearing a row of minute granules; second interspace unarmed; striae weakly impressed, punctures as on disk, sometimes very slightly smaller. Vestiture consisting of minute, hairlike, striae setae and longer, hairlike, interstitial setae, the latter confined to declivital region except a few short, interstitial setae may be present on disk.

MALE. Similar in size and proportions to female. Frons as in female except more deeply concave; pubescent patches on pronotum absent; asperities on pronotum more generally distributed; declivital striae more impressed, granules on interspaces slightly larger.

TYPE MATERIAL. Holotype female, allotype, and 9 paratypes were collected along highway 175, 3 miles north of Suchixtepec, Oaxaca, Oaxaca, Mexico, on 4 June 1971, from branches of *Pinus oocarpa* Schiede by D. E. Bright (CNC No. 12,636). Seven additional paratypes were collected along highway 175, 3.5 miles south of Suchixtepec, Oaxaca, Mexico, on 2 June 1971, from branches of *Pinus lawsonii* Roetzl by D. E. Bright, and 21 additional paratypes were collected 8 miles south of Miahuatlan, Oaxaca, Mexico, on 6 June 1971, from branches of *Pinus pringlei* Shaw by D. E. Bright.

REMARKS. Adults of this species would be determined as near *P. tertius* Blackman in Wood's key (1958). They differ from those of *P. tertius* by the nearly contiguous pubescent patches on the dorsum of the female pronotum, by the absence of a longitudinal carina on the frons of the male, by the smaller declivital granules, and by the less deeply impressed second declivital interspace.

Pityoborus ramosus n. sp.

Figs. 23, 24

FEMALE. Length 2.7 to 3.0 mm, 3.0 times longer than wide; reddish brown, pubescence yellowish.

Frons broadly flattened to weakly concave from eye to eye; surface dull, minutely reticulate, the punctures fine, slightly impressed, more abundant on periphery and sparse to absent in median portion; vestiture moderately abundant, longer and incurved on periphery, short and sparse or absent in median portion; epistoma elevated, smooth, shining, fringed with a row of short, stout setae. Antennal club oval, about 1.5 times longer than wide; first two sutures weakly arcuate, chitinized.

Pronotum about as long as wide; sides arcuate, weakly constricted before the broadly rounded anterior margin; anterior margin bearing about 13 erect, equal-sized asperities, these usually separated basally; anterior slope bearing numerous, isolated asperities, surface between asperities dull, minutely reticulate-granulate; pubescent patches elongate-oval, about 1.2 times wider than long, separated dorsally by a distance equal to 1.5 times the width of one patch; posterior portion dull, bearing fine shallow punctures and fine granules near summit; median line broad, impunctate, reaching from base to near summit.

Elytra 1.8 times longer than wide; sides parallel on basal three-fourths, broadly rounded behind; striae weakly impressed, punctured in nearly regular rows, more strongly impressed toward base; interspaces convex, about twice as wide as striae, surface dull, minutely reticulate. Declivity convex; second interspace very weakly impressed; first and third interspaces very feebly elevated, the first more so, both bearing a median row of fine granules. Vestiture mostly confined to declivity, consisting of long, hairlike setae on all interspaces except second, these extending nearly to base on first interspace, also a few, short, scattered setae are located on discal interspaces 3, 5, 7, and 9; the longest setae on declivity 2.0 times or more longer than a distance equal to interstitial width.

MALE. Similar in size and proportions to female. Frons similar to female except setae slightly shorter; median longitudinal carina sometimes present, extending from epistoma to upper level of eyes; pubescent patches on pronotum absent; granules on first and third declivital interspaces slightly larger, second interspace slightly more deeply impressed.

TYPE MATERIAL. Holotype female, allotype, and 8 paratypes were collected along highway 175, 3.5 miles south of Suchixtepec, Oaxaca, Mexico, 8000 ft, on 2 June 1971, from shaded-out branches of *Pinus lawsonii* Roetzl by D. E. Bright (CNC No. 12,637).

REMARKS. This species is closely related to *P. intonsus* Wood. Its adults differ from those of *P. intonsus* by smaller, less elongate pubescent patches on the

female pronotum, by the much greater dorsal distance between these, by the more broadly flattened female frons, by the much longer declivital setae of both sexes, and by the somewhat larger body size of both sexes.

***Prognathotrichus* n. gen.**

This genus is closely related to *Gnathotrichus* Eichhoff. Distinguishing characteristics are: the presence of two oval, bulbous areas (Mycangia?) on the dorsal surface of the pronotal base of the male; the sexually dimorphic antennal club which, in the female, is narrowly oval, definitely longer than wide, without longer setae on the outer border in contrast to *Gnathotrichus* and which, in the male, is more broadly oval, nearly as long as wide; and the elytra bearing numerous short and long hairlike setae, rather than glabrous or subglabrous as in *Gnathotrichus*. Additional generic characters are probably included in the species description below.

Type-species: *Prognathotrichus primus* n. sp.

***Prognathotrichus primus* n. sp.**

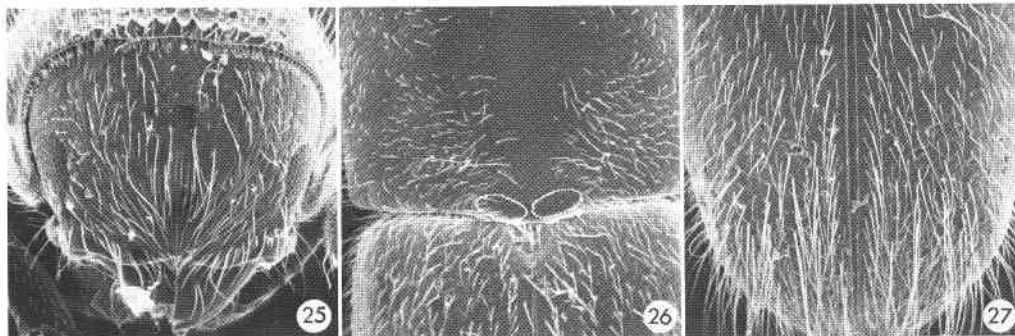
Figs. 25, 26, 27

MALE. Length 3.1 to 3.5 mm, 3.1 times longer than wide; light reddish-brown.

Frons convex above eyes, weakly impressed on lateral areas below eyes; surface distinctly, strongly aciculate, the lines converging to the midpoint of epistoma, continuing to epistomal margin, with sparse, shallow punctures scattered over surface; epistoma somewhat elevated, smooth and shining except aciculate in median portion. Eye rather small, about 2.0 times longer than wide, broadly emarginate. Antennal club nearly circular, 1.1 to 1.2 times longer than wide; first two sutures distinct, arcuate, partly chitinized; third suture indicated by strongly arcuate row of setae.

Pronotum about 1.2 times longer than wide, widest at about middle; sides arcuate, very faintly constricted before broadly rounded anterior margin; anterior margin bearing about 6 rather low asperities; anterior slope bearing numerous, isolated asperities, these low, not strongly elevated, extending on sides to just before middle; posterior surface shining, punctured, the punctures small, impressed, usually separated by a distance equal to more than twice their own diameters, surface between punctures finely minutely reticulate; median line broad, impunctate, not elevated; on each side of median line on posterior margin are two, transversely oval, bulbous areas resembling cavities with clear cuticle over top, each cavity 1.8 times wider than long; vestiture consisting of numerous, fine, hairlike setae, longer on anterior slope and on sides.

Elytra about 1.9 times longer than wide; sides parallel on basal two-thirds, then narrowly rounded behind, apex extended, notched at suture; striae not impressed, not discernible, indicated only by double rows of short setae, and sometimes by slightly larger punctures; entire surface densely, confusedly punctured, area between punctures bearing minute lines and points.



FIGS. 25-27. *Prognathotrichus primus*. 25, ♀ frons; 26, base of pronotum (mycangial (?) areas outlined in ink); 27, declivity.

Declivity sloping, flattened; sutural interspace very slightly elevated; striae obsolete; surface granulate-punctate, the granules in what should be interspace 3 slightly larger and arranged in a row. Vestiture abundant, consisting on disk of rows of erect, long, hairlike setae in interspaces and a double row of much shorter, strial setae, these setae all longer and more densely placed on declivity.

FEMALE. Similar in size and proportions to male. Antennal club elongate-oval, about 1.4 times longer than wide. Pronotum more narrowly rounded in front than in male; dorsal surface without oval, bulbous cavities. Elytra as in male.

TYPE MATERIAL. Holotype male, allotype, and 26 paratypes were collected on the summit of Mt. Tzontehuitz, 9500 ft, Chiapas, Mexico, on 26 May 1969, from the bole of an unknown species of tree by D. E. Bright (CNC No. 12,638).

New Collection Records

Only species previously unrecorded from Mexico or significant range extensions with Mexico are recorded below. All collections were made by me unless otherwise noted.

***Pityoborus tertius* Blackman, 1942, Proc. U.S. nat. Mus. 92(3147): 202.**

This species was known only from Mexico, D.F., and Hidalgo. It was recently collected in Chiapas at the following localities: Chiapa de Corzo, 10 May 1969; Lagos des Colores (Lago de Montebello), 17 May 1969, from *Pinus oocarpa* Schiede; and 20 miles north of Huixtla, 3 June 1969, collected by W. R. M. Mason.

***Pseudopityophthorus granulifer* Wood, 1967, Gt Basin Nat. 27(1): 42.**

This species was described from Honduras and Guatemala. One specimen from Chiapas was also seen by Wood and doubtfully assigned to this species. Recent collecting has extended the range to 8 miles west of El Palmito, Sinaloa, 4 August 1964, collected by H. F. Howden. Additional localities are: Highway 131, 178 km south of Oaxaca, Oaxaca, 11 May 1971, from *Quercus* sp., and 20 miles north of Bochil, Chiapas, 10 June 1969, from *Quercus* sp.

***Pseudopityophthorus tenuis* Wood, 1959, Gt Basin Nat. 19(1): 1.**

Previously recorded only from the type locality in Hidalgo. Recently collected 5 miles southeast of Teopisca, Chiapas, 9 July 1969, from *Quercus* sp.

Reference

Wood, S. L. 1958. Bark beetles of the genus *Pityoborus* Blackman (Coleoptera: Scolytidae). *Gt Basin Nat.* 18(2): 46-56.

(Received 24 March 1972)