

New species and notes on Mexican Hylesininae (Coleoptera: Scolytidae)

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Abstract

Two new species of Hylesininae, *Cnesinus nogueraae* and *Chramesus xalapae*, are described from eastern Mexico. Distributional notes are given for an additional nine species of Hylesininae from Mexico. *Cladoctonus cubensis* Wood and *Pseudochramesus jaliscoensis* Wood are figured for the first time.

Introduction

During extensive collecting in cloud forests in the mountains of eastern Veracruz several undescribed species of Scolytidae in the subfamily Hylesininae were encountered. These are described here to make the names available for a publication on biogeography and biology of the Scolytidae of this region. Significant new distribution records for Mexican Hylesininae from this and other areas are also presented. Abbreviations for collections are taken from Arnett and Samuelson (1986).

New Species

Cnesinus nogueraae Atkinson, n.sp.
(Figs. 1-4)

Diagnosis: Females of this species can readily be distinguished from those of all other Mesoamerican species in which the female frons is carinate by the large dense patch of yellow fimbriate setae immediately above the carina and occupying the entire interocular area. Both males and females of this species are appreciably stouter than those of related species.

Description: Female: Length 2.7 mm, body 2.5 times as long as wide. Mature color of integument black.

Epistomal margin slightly thickened, elevated, shining,

with a small truncate ventral projection in center, its length subequal to elevated epistomal margin, its width slightly less than its length. Sparse, recumbent, yellow setae on upper margin of epistomal elevation. Frons with prominent, shining transverse carina halfway between epistoma and upper level of eyes, length approximately 1/3 interocular distance. Frons concave between epistoma and carina, filled with 2 rows of densely packed, stout, blunt, erect, orange setae. Anterolateral margins of frons elevated in front of antennal insertions. Area above carina with dense patch of erect, fimbriate, yellow setae, totally occupying area between eyes to vertex; length and orientation of setae such that the entire patch appears flattened in frontal and lateral view. Vertex punctate, reticulate with inconspicuous, short, fine, recumbent setae, rising to blunt point slightly above upper level of eyes. Eyes separated above by distance greater than 4 times greatest width of eye. Antennal scape with abundant, long, fimbriate hairs; pedicel with 6 sparsely pubescent articles; club elongate, 4 times longer than wide, acuminate, slightly flattened with 3 clearly marked transverse sutures.

Pronotum .85 times as long as wide, subparallel on basal 1/2, broadest before middle, abruptly narrowed anteriorly. Surface deeply, closely, irregularly strigose; individual punctures not distinguishable. Short, sparse, slender, recumbent setae on discal area, and longer, semi-erect, spatulate setae present anteriorly and laterally. Midline of basal area shining, impunctate, slightly elevated, extending 2/3 length of pronotum.

Elytra 1.3 times as long as wide. Scutellum large, round, deeply recessed in notch at elytral bases. Anterior margins of elytra elevated, weakly crenulate, with small submarginal crenulations on most interstriae. Strial punctures on disk and declivity confluent. Interstriae twice as wide as striae, with abundant, fine, confused, recumbent, scale-like setae, and uniseriate rows of erect flattened setae; length of erect setae slightly greater than interstitial width, spaced by distances greater than or equal to length within rows. Declivity narrowly concave, slightly flattened on interstriae 1 and 2, only stria 1 reaching apical margin. Erect interstitial setae longer than on disc, spatulate, dark, associated with small granules.

Male: Similar to female except for frontal vestiture and sculpture. Epistoma similar to that of female, with rows of stiff, erect, blunt, orange setae above. Central area of frons between epistoma and upper level of eyes broadly, shallowly concave, with 2 slightly protuberant bulges just above rows of orange setae. Lateral area of concavity adjacent to eyes with yellow, spatulate setae; upper central area smooth, naked.

Type Material: The female holotype, male allotype, and 52 paratypes are labelled: "Mexico, Veracruz, Xalapa; 23-X-83, 1360 m; F.A. Noguera M. FANM-

77; from *Psittacanthus schiedeanus* (Viscaceae)". The holotype, allotype, and 4 paratypes are deposited in the USNM. Other paratypes are in the author's collection (THAC), CNCI, FSCA, SLWC, and CEAM.

Comments: This species is named in honor of Biol. Felipe Noguera Martínez, in recognition of his work on Scolytidae of mesic montane forest in the Xalapa region.

The following modification of Wood's (1982) key to North and Central American species is presented below. The reference to couplet 35B below corresponds to couplet 35 in the original key. The second alternative in couplet 27 should be modified slightly to incorporate this new species. The phrase "female carina crescent-shaped, its arms extending slightly dorsolaterad" should be deleted. This will not materially affect the identification of other species in the key since other important characters are given in the same couplet.

- 35A(32). - Frons above transverse carina with large dense patch of erect yellow setae, patch occupying entire interocular area
 *noguerae*, n.sp.
- Frons above transverse carina bare or with sparse setae, definitely not in defined patch 35B.

Chramesus xalapae Atkinson, n.sp.
 (Figs. 5-8)

Diagnosis: This species is closely related to *annectans* (Wood), *gracilis* Wood, and *exilis* Wood, all of which are characterized by the acuminate antennal club, slender body form (for the genus), and paired frontal tubercles displaced mesally from the lateral margins. It is distinguished from these related species by the elytral vestiture, small concavity on the male frons, and by characters given below in a key to species.

Description: Male: Length 2.3 mm, body 2.4 times as long as wide. Mature color black.

Epistomal margin smooth, not raised, with blunt projection ventrally, width of projection about 1/4 width of epistoma. Frons deeply, narrowly concave in center, surface smooth, impunctate; concavity not reaching upper level of eyes, epistoma, or lateral margins. Lateral areas of frons flattened, without elevated margins. Frons with pair of blunt subquadrate projections arising at lower margins of central concavity, mesad of antennal insertions. Processes 3 times longer than wide in frontal view, height subequal to length. Long fimbriate setae in lateral areas of frons, mesad of projections, but not in center of concavity; shorter spatulate setae above to vertex. Eyes separated above by distance 3 times greater than greatest width of eye.

Pronotum 0.75 times as long as wide, broadest at base, slightly constricted just behind head; anterior margin rounded. Surface of disc faintly reticulate with sparse, shallow punctures; these replaced by granules anteriorly and laterally. Short, recumbent, slightly spatulate setae mixed with fine hairlike setae associated with punctures and granules.

Elytra 1.4 times as long as wide, twice as long as pronotum, parallel-sided on basal 3/4, broadly rounded behind. Basal margins of elytra weakly curved, armed with numerous small marginal crenulations, second row of submarginal crenulations on interstriae 1-4. Strial punctures shallow, spaced within rows by distance equal to twice the diameter of punctures. Striae weakly impressed, with very fine, short, recumbent setae; length approximately equal to diameter of strial punctures. Interstriae twice as wide as striae, weakly convex with uniseriate row of small granulate punctures, each associated with a semi-erect, blunt seta, length equal to 1/2 interstitial width. Uniseriate rows of recumbent setae on either side of erect setae, sparse on disc, becoming more abundant towards declivity; length of recumbent setae 1/2 length erect setae. Declivity steep, strial punctures smaller than on disc.

Female: Similar to male except for frontal vestiture and sculpture. Frons flattened from epistoma to vertex; surface reticulate, weakly, sparsely punctured, with short, sparse spatulate setae throughout, with longer setae only on epistomal margin. Frontal projections in same position as in male, but shorter, rounded, not longitudinally compressed. Shallow transverse impression between frontal projections and epistomal margin.

Type Material: The male holotype, female allotype, and 15 paratypes are labelled: "Mexico, Veracruz, Xalapa; 14-X-83, 1360 m; F.A. Noguera M., FANM-65". The holotype, allotype, and 2 paratypes are deposited in the U.S. National Museum. Other paratypes are in the author's collection (THAC), CNCI, FSCA, SLWC, and CEAM.

Comments: This species is named for the city of Xalapa where it was collected. Wood (1982) included 2 species related to *xalapae* in his key to North and Central American species. An additional species, *exilis*, was described subsequently from Mexico (Wood 1983). The following modification to Wood's (1982) key is proposed to accommodate these changes. Couplet 9C in this key corresponds to Wood's couplet 9.

- 9A(8) -Male frontal projections conical; pronotum reticulate, not punctate . . . *exilis* Wood
- Male frontal projections subquadrate, longitudinally compressed; pronotum punctate-reticulate 9B
- 9B(9A) -Male frons broadly concave, frontal concavity extending to upper level of eyes 9C
- Male frons narrowly concave, frontal concavity confined to center of frons, not

reaching upper level of eyes
 *xalapae* n.sp.

Notes

Hylastes macer LeConte. Baja California Norte, Parque Nacional San Pedro Mártir, 6-IX-80, R. Gordon (USNM, 2). This pine-breeding species is widely distributed in the Rocky Mountains and Pacific Coast ranges of western North America from British Columbia to Arizona and California. This is the first record of this species from Mexico.

Hylesinus aztecus Wood. Oaxaca, Gueletao, 17.2 km N, 17-VII-87, R. Anderson, 2591 m, oak-pine-alder forest (TAMU, 1). This represents the southernmost reported locality for this species as well as a new state record. It has previously been collected in the states of Mexico, Morelos, and the Distrito Federal in ashes.

Phloeoborus rudis Erichson. Chiapas, Unión Juárez, 20-X-72, (USNM, 1); Yucatán, 1 mi E Xcalacoop, 26-V-84, R.H. Turnbow, at light (R.H. Turnbow Coll., 1). This species has previously been reported from lowland tropical areas from Guatemala to Brazil, but not from Mexico.

Phloeotribus demessus Blandford. Tamaulipas, 12 km E Ocampo, 16-X-85, R.H. Turnbow (R.H. Turnbow Coll., 2). This is a new state record and the northernmost recorded locality in northeastern Mexico. It has been found in humid tropical areas at low and intermediate elevations in Chihuahua, Jalisco, and Veracruz, southward to Panama.

Phloeotribus setulosus Eichhoff. Oaxaca, Valle Nacional, 26-X-86, A. Burgos, 620 m (CEAM, 1). This species is widely distributed in lowland tropical areas from southern Mexico to Brazil and Peru. It has previously been collected in Jalisco, Veracruz, Campeche and Chiapas. Wood (1982) incorrectly listed Tampico from the state of Veracruz instead of Tamaulipas.

Cladoctonus cubensis Wood. Morelos, Valle de Vasquez, 930 m, 30-X-87, Armando Burgos S. (THAC, 4; CEAM, 4). Tamaulipas, rd. to Rancho del Cielo vic. Gómez Farias; 5-VI-87, R.H. Turnbow (THAC, 1). This species has previously been reported from the Yucatán peninsula (Estrada and Atkinson 1989) and from the type locality in Cuba. The new localities represent significant range extensions. I have compared specimens from all Mexican locali-

ties to the type in the USNM. The specimens from Morelos and Tamaulipas are slightly larger than those from Cuba and Campeche, but do not differ in any significant respect. Since species in this genus are poorly known (not treated by Wood 1982) SEM photographs are shown in Figs. 9-12.

Pseudochramesus jaliscoensis Wood. Guerrero, Acahuizotla, 11-XII-87, A. Burgos S. (THAC, 4). New State Record. This species was recently described from the Pacific Coast of Jalisco (Wood 1987). No other species have been reported north of Colombia, but this or other species will probably be found in intervening areas. Since species in this genus are poorly known (not treated by Wood 1982) SEM photographs are shown in Figs. 13-16. The following modification to Wood's (1982) key to genera of North and Central America is presented below.

26A(23) -Eye emarginate; antennal club marked by at least 2 oblique sutures; club elongate, acuminate, nearly symmetrical longitudinally; attachment to pedicel basal
 *Phloeosinus*

-Eye entire; antennal club with or without sutures, elongate-oval in shape, strongly asymmetrical longitudinally, attachment to pedicel not basal 26B

26B(26) -Sutures on club obsolete . . . *Chramesus*

-Sutures on club clearly marked by rows of setae *Pseudochramesus*

Dendrosinus transversalis Blandford. Tamaulipas, 78 km N. Cd Victoria, 6-VI-87, R.H. Turnbow (RHTC, 1). This represents the northernmost reported locality for this species. It is also known from Veracruz and Costa Rica.

Chaetophloeus penicillatus (Bruck). Nuevo León, 8 mi W Iturbide, 24-VII-76, Piegler et al. (TAMU, 1). New State Record. This species is found in the southwestern U.S. and the semiarid uplands of the Mexican Plateau (San Luis Potosí, Querétaro, Hidalgo) where it breeds in shrubs of the genus *Rhus*.

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Wood examined material of the species described here and confirmed their novelty.

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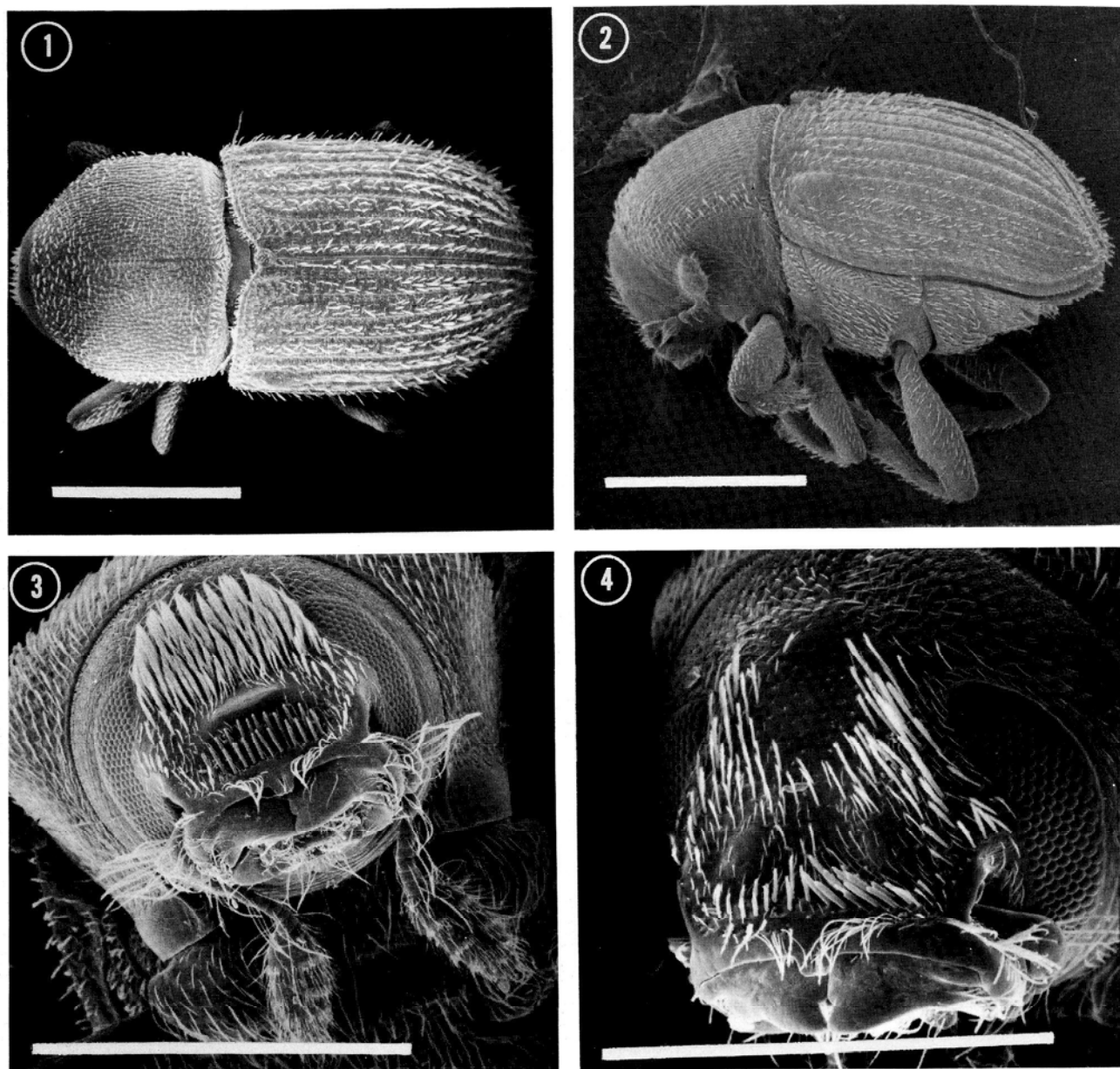


Figure 1-4. *Chesusinus noguerae*, n.sp. 1) Female, dorsal view. 2) Male, lateral view. 3) Female, frons. 4) Male, frons. White line represents 1 mm in Figs. 1-3, 0.5 mm in Fig. 4.

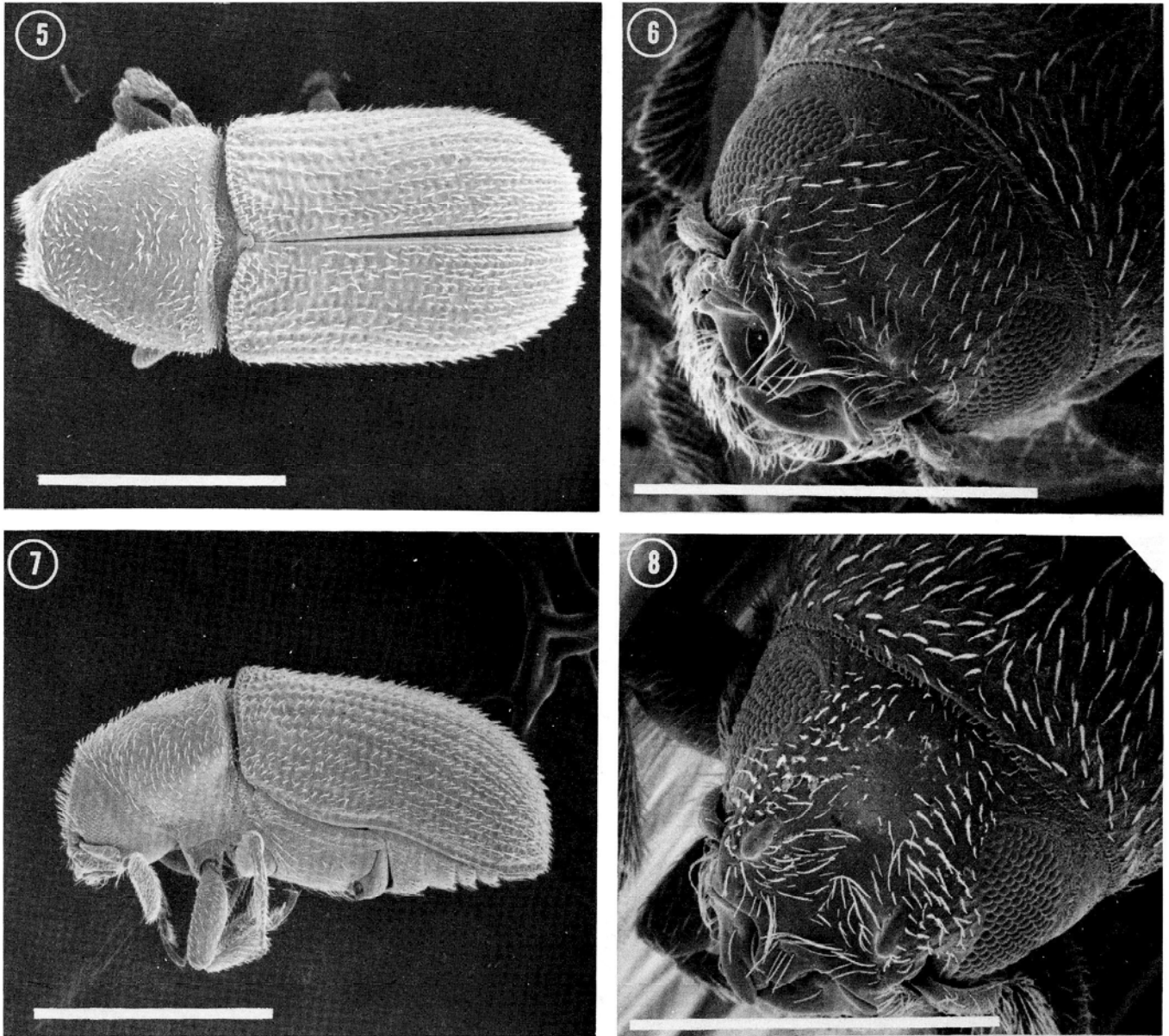


Figure 5-8. *Chramesus xalapae*, n.sp. 5) Male, dorsal view. 6) Female, frons. 7) Male, lateral view. 8) Male, frons. White line represents 1 mm in Figs. 5 and 7, 0.5 mm in Figs. 6 and 8.

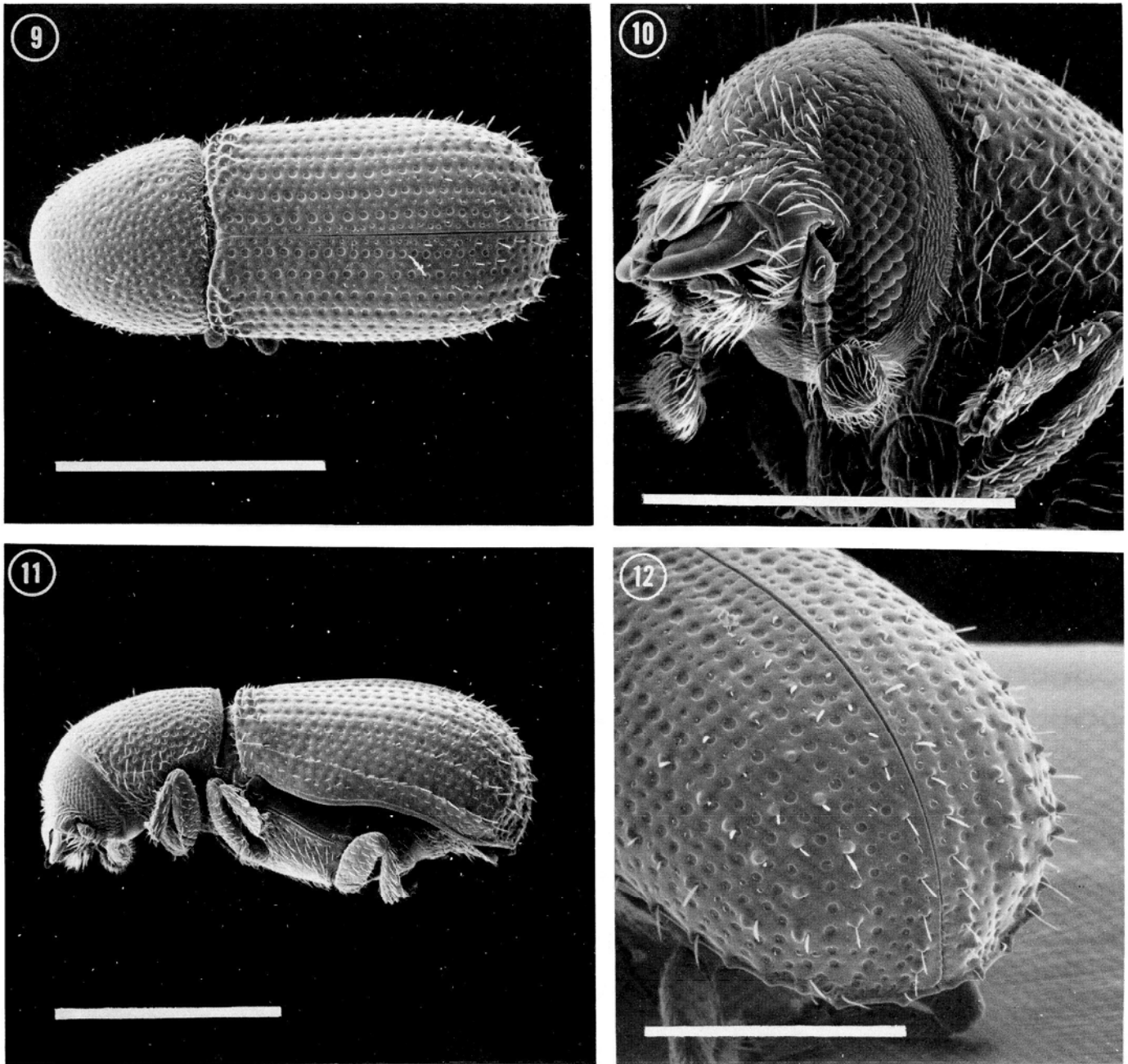


Figure 9-12. *Cladoctonus cubensis* Wood, male. 9) dorsal view. 9) Head and pronotum. 11) Lateral view. 12). Frons. White line represents 1 mm in Figs. 9 and 11, 0.5 mm in Figs. 10 and 12.

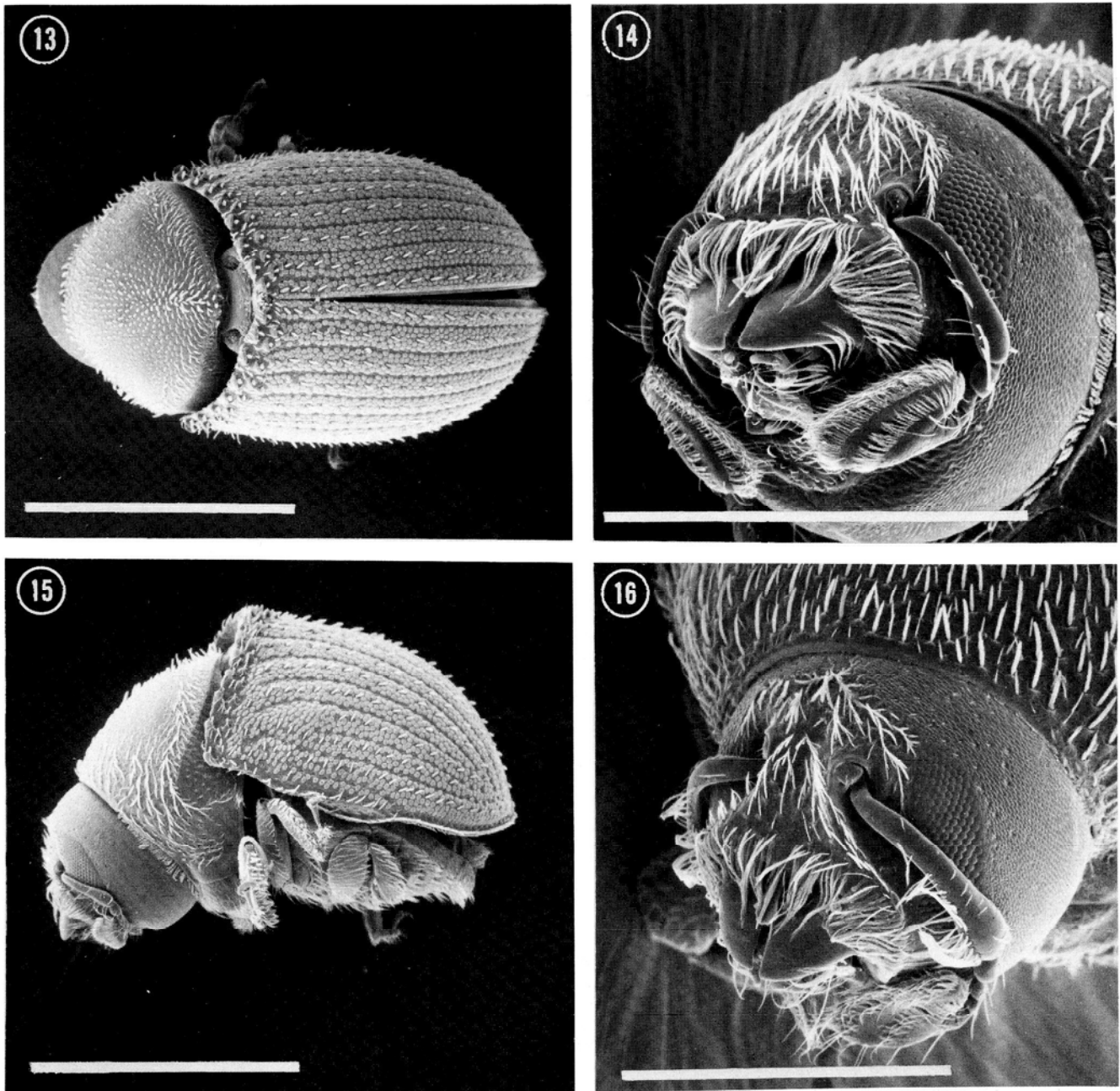


Figure 13-16. *Pseudochramesus jaliscoensis* Wood. 13) Female, dorsal view. 14) Female, frons. 15)) Male, lateral view. 16) Male, frons. White line represents 1 mm in Figs. 13 and 15, 0.5 mm in Figs. 14 and 16.