Reprinted from THE PAN-PACIFIC ENTOMOLOGIST
Vol. 45, No. 4, 8 December 1969
pp. 303–317
Made in United States of America

Records and Descriptions of Mexican and Central American Tillomorphini

(Coleoptera: Cerambycidae)

JOHN A. CHEMSAK
University of California, Berkeley

The tribe Tillomorphini is comprised of a rather homogenous group of species in the Nearctic and Neotropical regions. Apparently this group is closely related to the Anaglyptini with one of the major differences between the tribes being the presence of eburneous elytral fasciae in the Tillomorphini. Linsley (1964) considered *Tilloclytus* Bates, *Cyrtophorus* LeConte, and *Microclytus* LeConte as anaglyptine while *Euderces* LeConte, *Tetranodus* Schaeffer, and *Pentanodes* Schaeffer were placed in the Tillomorphini. Also at this time Linsley synonymized *Eplophorus* Chevrolat with *Euderces*. It becomes obvious after examining a relatively large amount of material that this synonymy is justified. The characters of the antennal spines, palpal apices, and basal elytral gibbosities vary greatly in the available species. However, for purposes of convenience, both generic names will be utilized here. While no attempt is made at this time to critically analyze the tribal relationships of these groups, the following New World genera may be considered as tillomorphine: *Euderces*, *Eplophorus*, *Cleozona* Bates, *Tetranodus*, *Pentanodes*, *Tillomorpha* Blanchard, *Lamproclytus* Fisher, and *Calliclytus* Fisher. The other genera listed in Blackwelder (1946) are probably Anaglyptini or other.

Most Tillomorphini are rare in collections although the adults may be collected on flowers. Four genera are known from Mexico and Central America while the remainder are South American and West Indian.

Pentanodes has been recorded only from Brownsville, Texas, but certainly must occur in Mexico.

This study was undertaken during the course of National Science Foundation Grant GB-4944X on North American Cerambycidae. Celeste Green is gratefully acknowledged for the preparation of the illustrations.

KEY TO THE MEXICAN AND CENTRAL AMERICAN GENERA OF TILLOMORPHINI

1 Legs with femora suddenly clavate; elytra with eburneous fasciae transverse. 2
Legs with femora gradually clavate; elytra with a double pair of oblique eburneous fasciae. Larger species ..... *Cleozona*

2(1) Elytra with eburneous fasciae narrow, usually not extending completely across elytra; antennae of males without tumid segments 3
Elytra with a single pair of broad eburneous fasciae extending from lateral margins to suture; antennae of males with segments three to six tumid ..... *Tetranodus*

3(2) Antennae with third segment bearing a long apical spine; elytra with basal gibbosities usually well developed; palpi with apical segments usually not broadly dilated ..... *Eplophorus*
Antennae with third segment unarmed or bearing a short spine; elytra with basal gibbosities absent or very low; palpi with apical segments often broadly dilated ..... *Euderces*

Genus CLEOZONA Bates

Cleozona Bates, 1874, Trans. Entomol. Soc. London, 1874:223; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:60; Linsley, 1935, Trans. Amer. Entomol. Soc., 61:87.

TYPE SPECIES.—*Cleozona pulchra* Bates (monobasic).

This monotypic genus is characterized by gradually clavate femora, spined antennae, and a double pair of oblique eburneous fasciae on the elytra.

CLEOZONA PULCHRA Bates

Cleozona pulchra Bates, 1874, Trans. Entomol. Soc. London, 1874:223; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:60, pl. 6, fig. 10; Chemsak, 1967, J. Kans. Entomol. Soc., 40:75.

Cleozona pulchra var. *rufipes* Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:307; Chemsak, 1967, J. Kans. Entomol. Soc., 40:75.

Cleozona rufipes, Linsley, 1935, Trans. Amer. Entomol. Soc., 61:89.

The variety *rufipes* may constitute a good subspecies but sufficient material is lacking at this time to analyze the populations. All Mexican material available has reddish legs while specimens from Guatemala to Nicaragua possess black legs.

TYPE LOCALITY.—of *pulchra*, Chontales, Nicaragua; *rufipes*, Tehuantepec, Mexico.

MATERIAL EXAMINED.—*Mexico*: 1 ♂, 8 miles W. Alamos, Sonora, 9 August 1957 (R. L. Westcott); 1 ♂, 5 miles W. Alamos, 1–2 August 1953 (F. S. Truxal); 2 ♀, Rio Cuchuhaqui, 7 miles S. Alamos, 25 July–7 August 1953 (F. S. Truxal); 2 ♂, 3 ♀, Minas Nuevas, Sonora, 7 August 1952 (C. & P. Vaurie); 1 ♀, 8 miles S. Elota, Sinaloa, 2 July 1963 (F. D. Parker, L. A. Stange); 1 ♂, Los Mayos, Sinaloa, 24 July 1952 (J. D. Lattin); 1 ♂, 7 miles S. Guamuchil, Sinaloa, 28 July 1966 (J. A. Chemsak); 2 ♂, 1 ♀, 5 miles N. Mazatlan, Sinaloa, 11 August 1965 (G. H. Nelson); 24 ♂, 19 ♀, Jesus Maria, Nayarit, 26 June and 6 July 1955 (B. Malkin); 2 ♂, 7 ♀, 3 miles N.W. Arroyo Santiago, near Jesus Maria, Nayarit, 5 July 1955 (B. Malkin); 1 ♂, 3 miles N.W. Santa Maria del Oro, Nayarit, 27 June 1963 (J. Doyen); 1 ♂, 2 ♀, 10 miles W. Colima, Colima, 1 August 1954 (Cazier, Gertsch, Bradts); 3 ♂, 3 ♀, Tecolopa, Colima, 31 July 1954 (Cazier, Gertsch, Bradts); 1 ♂, 5 miles E. Apatzingan, Michoacan, 19 July 1954 (Linsley, MacSwain, and Smith); 1 ♀, 11 miles W. Hidalgo, Michoacan, 12 July 1963 (Parker, Stange); 1 ♀, 6 miles S. Rio Mexcala, Guerrero, 5 August 1965 (G. H. Nelson); 1 ♀, 3 miles W. Tehuantepec, Oaxaca, 2 August 1965 (G. H. Nelson). Linsley (1935) records one specimen from Tejupilco, Mexico, July (Hinton).

Guatemala: 1 ♀, Guatemala, ex. *Guajacum officinale*.

Genus TETRANODUS Linell

Tetranodus Linell, 1896, Proc. U. S. Nat. Mus., 19:396; Linsley, 1935, Trans. Amer. Entomol. Soc., 61:87; Linsley, 1964, Univ. Calif. Publ. Entomol., 22:185.
Tetranodes, Schaeffer, 1904, J. N. Y. Entomol. Soc., 12:223.

Based upon the type species, *Tetranodus niveicollis* Linell, and on available material, this genus appears to be a rather uniform unit. In all cases, the ivory fasciae of the elytra are broad and extend across the width of the elytra, the eyes are pointed behind, and the males have segments three to six of the antennae incrassate. Four species are presently known.

KEY TO THE SPECIES OF TETRANODUS

1 Elytra with basal punctures coarse, dense, without broad longitudinal spaces between rows of punctures 2
Elytra with basal punctures fine, sparse, arranged in rows separated by broad longitudinal glabrous spaces; color shining black, appendages paler. Length, 5 mm. Chiapas to Guatemala ..... *reticeps* (Bates)

2(1) Elytra behind fasciae separately punctate, not scabrous 3
Elytra behind fasciae deeply, closely punctate, scabrous appearing; color reddish, elytra dark behind ivory fasciae. Length, 4.5 mm. Sinaloa ..... *rugipennis* n. sp.

3(2) Pronotum cylindrical, sides not angulate at middle; elytra with basal punctures dense, not linearly arranged; males with segments three to six of antennae strongly incrassate. Length, 3.5–5 mm. Texas to Oaxaca ..... *niveicollis* Linell

Pronotum with sides somewhat expanded, angulate; elytra with basal punctures linearly arranged, lines separated; males with segments three to six slightly expanded. Length, 3–4 mm. Honduras ..... *angulicollis* n. sp.

TETRANODUS RETICEPS (Bates), (new combination)

Euderces reticeps Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:59.

The type is a female from Guatemala (near the city). It fits well into *Tetranodus* by the broad elytral fasciae and eyes pointed behind. A female is available from 4 miles N.W. Pueblo Nuevo, River Bajada, Chiapas, Mexico, 15 July 1965 (G. H. Nelson).

Tetranodus rugipennis Chemsak, new species

FEMALE.—Form small, cylindrical; integument reddish, elytra dark behind eburneous fasciae. Head reticulate punctate, long erect hairs sparse; palpi with apices dilated; eyes entire, pointed behind; antennae filiform, shorter than body, third segment longer than scape, fourth shorter than first, segments from seventh short, segments unarmed, sparsely pubescent. Pronotum longer than broad, base sharply constricted, apex shallowly impressed at sides; disk longitudinally striate; long erect hairs sparsely interspersed over surface, base with a fine band of pale appressed pubescence; prosternum impressed, apical one-third glabrous, basal two-thirds sparsely punctate; mesosternum with epimera clothed with white appressed pubescence; metasternum with a band of appressed pubescence posteriorly. Scutellum densely clothed with white appressed pubescence. Elytra almost 2½ times longer than basal width, wider behind middle, transversely impressed before fasciae; eburneous fasciae antemedian; disk rather densely, coarsely punctate before fasciae, posterior portion densely, rugosely punctate, more finely toward apex; pubescence very sparse, erect; apices rounded. Legs with tibiae bicarinate; pubescence sparse. Abdomen very sparsely punctate; apex of last sternite rounded. Length, 4.5 mm.

Holotype female (Canadian National Collection) from 5 MILES N. MAZATLAN, SINALOA, MEXICO, 24 July 1964, on flowers of *Buddleia wrightii* (H. F. Howden).

The rugose appearing elytra behind the eburneous fasciae distinguish this species.

TETRANODUS NIVEICOLLIS Linell

Tetranodus niveicollis Linell, 1896, Proc. U. S. Nat. Mus., 19:396; Linsley and Martin, 1933, Entomol. News, 44:181 (habits); Linsley, 1935, Trans. Amer. Entomol. Soc., 61:91; Linsley, 1964, Univ. Calif. Publ. Entomol., 22:185.

Tetranodes niveicollis, Schaeffer, 1904, J. N. Y. Entomol. Soc., 12:223 (habits).

Tetranodus mexicanus Linsley, 1935, Trans. Amer. Entomol. Soc., 61:90. (New synonymy.)

The characters used to separate *mexicanus* from *niveicollis* vary in the series at hand. The color differences in the elytra may be geographic but more material will be required to assess the situation.

TYPE LOCALITY.—of *niveicollis*, Brownsville, Texas; of *mexicanus*, Tejupilco, Mexico, Mexico.

MATERIAL EXAMINED.—*Mexico*: 1 ♂, Peñuela, Veracruz, 15 July 1941 (H. Dybas); 1 ♂, Puente Nacional, Veracruz, 3 July 1941 (H. Dybas); 1 ♀, 29 miles E. Cordoba, Veracruz, 12–25 July 1964 (E. Fisher, D. Verity); 2 ♂, Cotaxtla Experiment Station, Cotaxtla, Veracruz, 30 June 1962 (D. H. Janzen); 1 ♀, 56 miles N.W. Tehuantepec, Oaxaca, 27 July 1963 (J. Doyen).

Tetranodus angulicollis Chemsak, new species

MALE.—Form small, cylindrical; integument dark reddish brown, antennae paler. Head reticulate punctate, sparsely clothed with long erect hairs; palpi with apices strongly dilated; eyes large, pointed behind; antennae longer than body, segments three to six slightly expanded, third segment longer than scape, fourth shorter than first, segments unarmed, sparsely pubescent. Pronotum a little longer than broad, sides expanded, angulate; disk longitudinally striate; long erect hairs sparse, base with a band of appressed pubescence; prosternum impressed, apical one-third transversely wrinkled, remainder glabrous; mesosternum with epimera clothed with appressed pubescence; metasternum with a band of appressed pubescence posteriorly. Scutellum densely clothed with appressed pubescence. Elytra over 2½ times as long as broad, slightly broader behind middle; base with vague, flat gibbosities; disk impressed before fasciae; eburneous fasciae antemedian; punctures well separated, slightly smaller at apex; pubescence sparse, hairs erect, long and short; apices rounded. Legs sparsely pubescent, tibiae bicarinate. Abdomen subglabrous; apex of last sternite broadly rounded. Length, 3–4 mm.

Holotype male (United States National Museum) and one male paratype from TEGUCIGALPA, HONDURAS, 12 May 1912 (F. J. Dyer).

The angulate pronotum and weakly inflated antennal segments readily separate this species from the others.

Genus EPLOPHORUS Chevrolat

Eplophorus Chevrolat, 1861, J. Entomol., 1:248; Linsley, 1935, Trans. Amer. Entomol. Soc., 61:87.

Apelocera Chevrolat, 1862, Ann. Soc. Entomol. Fr., (4)2:61, Thomson, 1864, Systema Cerambycidarum, p. 195.

Apilocera Chevrolat, 1862, Ann. Soc. Entomol. Fr., (4)2:535; Pascoe, 1866, Trans. Entomol. Soc. London (3)5:295; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:60.

Blackwelder (1946) lists 18 species of *Eplophorus* distributed from Mexico to Colombia and Brasil. The Brasilian species, *waltli* Chevrolat, is doubtfully congeneric because of its distribution and at least two of the other species are synonyms. Since most of the species are known only from the type, only those species at hand will be listed below.

TYPE SPECIES.—*Tillomorpha spinicornis* Thomson (by original designation).

EPLOPHORUS BOUCARDI (Chevrolat)

Apilocera boucardi Chevrolat, 1862, Ann. Soc. Entomol. Fr., (4)2:535; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:60.

TYPE LOCALITY.—Coban, Vera Paz, Guatemala.

MATERIAL EXAMINED.—*Mexico*: 1 ♂, 15 miles W. Las Cruces, Chiapas, 27 July 1952 (Gilbert, MacNeill); 1 ♀, La Trinitaria, Chiapas, 17 June 1965 (Burke, Meyer, Schaffner); 1 ♂, 5 miles N.N.W. Tuxtla Gutierrez, Chiapas, 22 July 1954 (A. A. Alcorn); 1 ♂, 1 ♀, Tuxtla Gutierrez, 22 June 1965 (Burke, Meyer, Schaffner); 1 ♀, Sumidero Canyon, Tuxtla Gutierrez, 21–22 July 1963 (E. Fisher); 1 ♀, 10 miles W. Tuxtla Gutierrez, 21 June 1955 (R. B. & J. M. Selander); 1 ♂, 2 ♀, 4 miles N.W. Pueblo Nuevo, River Bajada, Chiapas, 15 July 1965 (G. H. Nelson); 1 ♂, El Suspiro, Berriozabal, Chiapas, 21 June 1955 (R. B. & J. M. Selander). *Honduras*: 1 ♂, Comavagua, 10 July 1964 (G. A. Axtell).

EPLOPHORUS BICINCTUS Linsley

Eplophorus bicinctus Linsley, 1935, Trans. Amer. Entomol. Soc., 61:89; Linsley, 1942, Proc. Calif. Acad. Sci., (4)24:56.

Euderces balli Knull, 1935, Entomol. News, 46:192; Linsley, 1964, Univ. Calif. Publ. Entomol., 22:191. (New synonymy.)

Eplophorus bicinctus peninsularis Linsley, 1942, Proc. Calif. Acad. Sci., (4)24:56.

This species is very distinctive by the double pair of elytral fasciae. Knull's (1935) description of *Euderces balli* fits the long series at hand from Mexico very well.

Linsley's (1942) designation of the subspecies *peninsularis* from San Domingo, Baja California, is probably valid.

TYPE LOCALITY.—of *bicinctus*, Los Mochis, Sinaloa, Mexico; of *balli*, Baboquivari Mts., Arizona.

The following specimens examined are all assignable to *Eplophorus bicinctus bicinctus*.

Mexico: 10 ♂, 10 ♀, Minas Nuevas, Sonora, 7 August 1952 (C. & P. Vaurie); 1 ♂, 1 ♀, Alamos, Sonora, 13 August 1965 (G. H. Nelson); 1 ♀, 12 miles N. Hermosillo, Sonora, 14 August 1965, on *Olneya tesota* (G. H. Nelson); 1 ♂, 5 miles W. Alamos, 1–2 August 1953 (F. S. Truxal); 1 ♂, 18 miles W. Alamos, 30 July 1957 (R. L. Westcott); 1 ♂, 2 ♀, 10 miles E. Navajoa, Sonora, 13 August 1959 (W. L. Nutting, F. G. Werner); 1 ♀, 12 miles N.E. El Fuerte, Sinaloa, 12 July 1962 (Sleeper, Anderson, Hardy, Somerby); 1 ♀, Culiacan, Sinaloa, 21 July 1959 (H. E. Evans); 1 ♂, 2 ♀, 7 miles S. Guamuchil, Sinaloa, 28 July 1966 (J. A. Chemsak).

EPLOPHORUS LONGICOLLIS Linsley

Eplophorus longicollis Linsley, 1935, Trans. Amer. Entomol. Soc., 61:88, pl. 2, fig. 4.

This species also has a double pair of eburneous elytral fasciae but the anterior pair is reduced to two sutural dots. There is variation in the

amount of red on the elytra. Some specimens have the basal half reddish while others are infuscated.

TYPE LOCALITY.—Bejucos, Mexico, Mexico.

MATERIAL EXAMINED.—*Mexico*: 2♀, 8 miles S. Elota, Sinaloa, 2 July 1963 (Parker, Stange); 33♂, 42♀, Jesus Maria, Nayarit, 26 June 1955 (B. Malkin); 7♀, 3 miles N.W. Arroyo Santiago, near Jesus Maria, 5 July 1955 (B. Malkin); 1♂, 55 miles W. Tequila, Jalisco, 28 June 1963 (J. Doyen); 1♀, Xalitla, Guerrero, 4 June 1946 (J. & D. Pallister); 1♂, 5 miles E. Apatzingan, Michoacan, 19 July 1954 (Linsley, MacSwain, Smith); 1♀, Jalastoc, Morelos, 22 May 1954 (J. Pacheco); 1♀, Lake Tequesquitengo, Morelos, 5 June 1959 (H. E. Evans); 1♂, Alpuyeca, Morelos, 8 July 1951 (P. D. Hurd); 1♀, Acatlan, Puebla, 19 July 1955 (P. & C. Vaurie); 1♂, 10 miles S.E. Pitago, Puebla, 27 June 1955 (R. B. & J. M. Selander); 1♂, Cacaloapan, Puebla, 26 April 1962 (F. D. Parker).

EPLOPHORUS SPINICORNIS (Chevrolat)

(Fig. 1)

Clytus spinicornis Chevrolat, 1835, Coleóptères du Mexique, fasc. 4, no. 7; Thomson, 1860, Classification des cérambycides, p. 229.
Eplophorus spinicollis, Chevrolat, 1861, J. Entomol., 1:248 (error for *spinicornis*).
Apelocera spinicornis, Chevrolat, 1862, Ann. Soc. Entomol. Fr., (4)2:62.
Apilocera spinicornis, Chevrolat, 1862, Ann. Soc. Entomol. Fr., (4)2:535; Bates, 1880, Biologia Centrali-Americana, Coleoptera, 5:60.
Eplophorus spinicornis, Blackwelder, 1946, U. S. Nat. Mus. Bull., 185:583.
Clytus elegans Laporte and Gory, 1835, Monographie du genre *Clytus*, Pl. 20.

In addition to the Biologia material, one specimen is at hand from Jalapa, Veracruz, Mexico.

EPLOPHORUS HOEGEI (Bates)

Apilocera Högei Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:305.

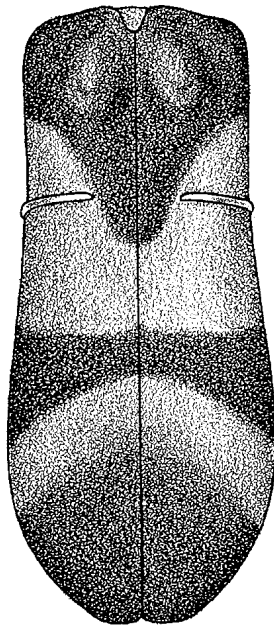
This species is characterized by the very long spine of the third antennal segment, very prominent basal gibbosities of the elytra, and bicolored elytra.

TYPE LOCALITY.—Cerro de Plumas, Veracruz, Mexico.

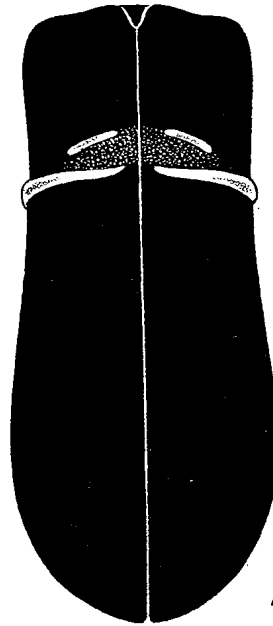
MATERIAL EXAMINED.—2♀, 4 miles N.W. Pueblo Nuevo, River Bajada, Chiapas, Mexico, 12–14 July 1965 (G. H. Nelson).

Eplophorus auricomis Chemsak, new species

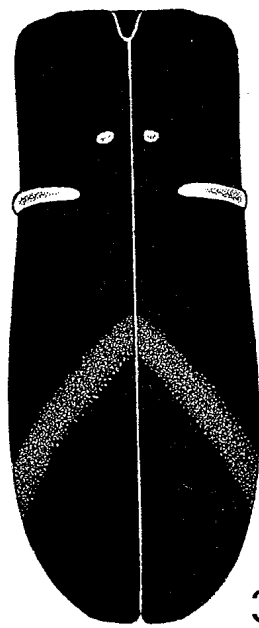
MALE.—Form moderate sized, cylindrical; color black, mouthparts, antennae, legs, mesosternum, and lateral posthumeral spots on elytra pale; pubescence golden, mostly appressed. Head with front vertical, very finely, densely punctate; pubescence dense, appressed, obscuring surface; eyes divided, upper lobe small; antennae about as long as body, scape paler, third segment ⅓ longer than scape, almost 3 times longer than fourth segment, remaining segments short, eleventh tapering at apex, spine of third segment blunt at apex, as long as fourth segment,



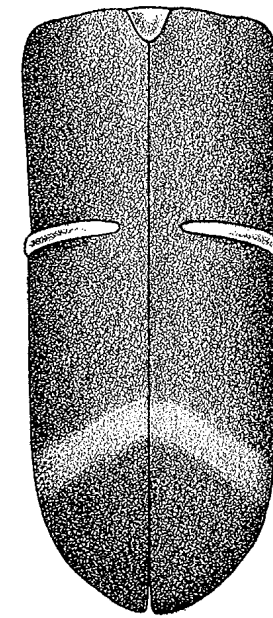
1



2



3



4

segments from fourth densely clothed with short appressed pubescence except below. Pronotum about 1.3 times longer than broad; base constricted; disk longitudinally striate, densely clothed with appressed pubescence except for apical margin and an arcuate submedial band, long erect hairs numerously interspersed; prosternum deeply impressed, apical one-third glabrous, basal two-thirds coarsely deeply punctate, densely pubescent; mesosternum shining, testaceous, episternum with a band of white appressed pubescence at margin which extends across middle coxae; metasternum finely punctate and pubescent, posterior margin with a band of dense white pubescence, episternum covered by elytra. Scutellum moderately golden pubescent. Elytra about twice as long as broad; basal gibbosities highly elevated, arcuate, extending over basal one-third of elytra; each side with a single ivory fascia behind basal gibbosities extending from lateral margin but not to suture; posthumeral area pale, coarsely, separately punctate; area behind ivory fasciae black, very densely punctate, opaque, appressed pubescence becoming denser to glabrous transverse lines at apical one-third, apical one-third densely clothed with appressed golden pubescence which obscures the surface, long erect hairs present at base and apex; apices subtruncate. Legs with femora clavate, each femur with a fine band of pubescence on outside surface, hind pair extending beyond elytral apices; tibiae carinate. Abdomen minutely punctate, sternites becoming more pubescent to apex; apex of last sternite rounded. Length, 7 mm.

Holotype male (Chicago Museum of Natural History) and one male paratype from TURRIALBA, COSTA RICA, June–July 1949 (K. W. Cooper).

Eplophorus aspericollis Chemsak, new species

MALE.—Form moderate sized, rather slender; color black, mouthparts and appendages very dark rufous, two antemedian fasciae eburneous; pubescence whitish. Head very densely, shallowly punctate, pubescence sparse, long, erect; eyes divided; antennae about as long as body, third segment twice as long as scape, fourth segment less than half as long as third, spine of third segment about half as long as fourth segment, fourth segment minutely dentate, apical segments finely clothed with very short pubescence, underside of segments three to six with short erect hairs, each segment to seventh with a very long erect hair at apex. Pronotum about 1.4 times longer than broad; base constricted; disk very finely asperate, sparsely clothed with short appressed pubescence, more densely at base, long erect hairs numerous; prosternum glabrous at apical third, basal two-thirds coarsely punctate, moderately densely pubescent; mesosternum with a dense patch of white appressed pubescence at sides; metasternum densely pubescent posteriorly. Scutellum finely pubescent. Elytra over twice as long as broad; basal gibbosities obtuse, short, coarsely, deeply punctate; ivory fasciae antemedian, extending from lateral margins but not to suture; median area very deeply densely punctate, opaque, apical one-third shining, almost impunctate; pubescence

←

FIGS. 1–4. Typical elytral patterns of: FIG. 1. *Eplophorus spinicornis* Chevrolat. FIG. 2. *Euderces parallelus* LeConte. FIG. 3. *Eu. cribratus* Bates. FIG. 4. *Eu. howdeni* Chemsak.

whitish, short, depressed, extending over basal one-third from humeri arcuately to suture just before ivory fasciae, a broad band present at apical one-third extending back from suture to lateral margins, apical portion sparsely clothed with short pubescence, long erect hairs present over basal one-third; apices truncate. Legs with femora clavate, with a pubescent line along outside and inside; tibiae carinate. Abdomen finely punctate at edges; first sternite pubescent at sides; apex of last sternite rounded. Length, 6 mm.

FEMALE.—Antennae shorter. Prosternum very finely punctate before coxae. Abdomen with apex of last sternite rounded. Length, 7 mm.

Holotype male (Cornell University) from TUXPAN, MICHOACAN, MEXICO, 6 July 1959, 6000 ft. (H. E. Evans). Allotype from 3 miles N. Tzitzio, Michoacan, Mexico, 5500 ft., 29 July 1962 (U. Kansas Mex. Exped.).

This species somewhat resembles *E. cribellata* (Bates) but lacks the pale areas of the elytra, the rugosely punctate pronotum, and long blunt spine of the third antennal segment.

Genus EUDERCES LeConte

Euderces LeConte, 1850, J. Acad. Natur. Sci. Philadelphia, (2)2:30. (For complete bibliography see Linsley, 1964, Univ. Calif. Publ. Entomol., 22:180.)

As here restricted, this genus includes only those species which lack antennal spines or possess only short spines on the third segment.

TYPE SPECIES.—*Callidium picipes* Fabricius (monobasic).

Eight species are recognized here from Mexico and Central America.

KEY TO THE MEXICAN AND CENTRAL AMERICAN SPECIES OF EUDERCES

1 Elytra with apices rounded, emarginate or subtruncate 2
Elytra with apices acutely produced; pronotum with sides expanded before middle; integument black, elytra with a single pair of eburneous fasciae. Length, 3 mm. Guatemala ..... *acutipennis* Bates

2(1) Elytra with a double pair of eburneous fasciae 3
Elytra with a single pair of eburneous fasciae 4

3(2) Elytra with posterior pair of ivory fasciae extending to suture; anterior pair very close to posterior pair, area between fasciae rufous. Length, 3.5–5 mm. Baja California del Sur ..... *parallelus* LeConte
Elytra with posterior pair of fasciae not attaining suture, anterior pair far removed; elytra rather uniformly dark rufous to black. Length, 4 mm. Oaxaca to Guatemala ..... *cribratus* Bates

4(2) Pronotum with disk finely asperate, not longitudinally striate 5
Pronotum with disk longitudinally striate 6

5(4) Elytra shining, rather uniformly punctate; pronotum and underside densely clothed with white appressed pubescence, long white flying

hairs numerous; integument uniformly dark reddish-brown. Length, 7 mm. Durango ..... *howdeni* n. sp.

Elytra very densely, opaquely punctate over basal one-half, apical half almost impunctate; pronotum sparsely clothed with long erect pubescence, surface dull; integument reddish, apical half of elytra dark. Length, 4–5 mm. Texas to Tamaulipas ..... *reichei exilis* Casey

6(4) Antennae without spines, third segment minutely dentate at most; elytra not basally gibbose 7

Antennae with segments three to five distinctly spined at apices; elytra with prominent gibbosities at base; color reddish, elytra darker at apex. Length, 4.5 to 6 mm. Sinaloa ..... *nelsoni* n. sp.

7(6) Elytra with pubescence sparse, hairs long and erect, appressed pubescence lacking; integument uniformly all black. Length, 3.5 to 5 mm. Nayarit to Morelos ..... *cribripennis* Bates

Elytra with oblique bands of densely appressed pubescence at apical one-third; integument bicolored, elytra red and black, pronotum variable. Length, 4–6 mm. Puebla to Oaxaca ..... *laevicauda* Bates

EUDERCES ACUTIPENNIS Bates

Euderces acutipennis Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:305, pl. 21, fig. 15.

This species is known only from the unique type from Panajachel, Guatemala. It is very distinctive among the known species of *Euderces* by the strongly produced apices of the elytra. Because of this character, the cup-shaped pronotum, and deeply inserted head, *E. acutipennis* may prove to be non-congeneric with the other species.

EUDERCES PARALLELUS LeConte

(Fig. 2)

Euderces parallelus LeConte, 1873, Smithson. Misc. Collect., 11(264):202; Leng, 1887, Entomol. Amer., 3:24, 44; Horn, 1894, Proc. Calif. Acad. Sci., (2) 4:339; Linsley, 1942, Proc. Calif. Acad. Sci., (4)24:57.

The double pair of eburneous fasciae which extend to the elytral suture make this species distinctive. The anterior pair of fasciae may be greatly reduced on occasion.

It is known only from the Cape Region of Baja California.

TYPE LOCALITY.—Lower California.

MATERIAL EXAMINED.—*Baja California*: 1 ♀, San Domingo, 19 July 1938 (Michelbacher and Ross); 1 ♀, Triunfo, 13 July 1938 (Michelbacher and Ross); 1 ♂, 1 ♀, Santa Rosa (Beyer); 1 ♀, 26 miles W. La Paz, 10 August 1966, on flowers of *Yucca* (J. A. Chemsak); 1 ♀, Todos Santos, 13 August 1966 (J. T. Doyen); 1 ♀, 1 mile S.W. Punta Palmilla, 13 September 1967 (J. Chemsak, A. & M. Michelbacher).

EUDERCES CRIBRATUS Bates

(Fig. 3)

Euderces cribratus Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:304.

Although the type locality is San Joaquin, Guatemala, a single female specimen from 10 miles S.E. Huajuapan de Leon, Oaxaca, Mexico, 27 June 1965 (Burke, Meyer, Schaffner) is at hand which appears to be assignable to this species. The type has rufous antennae and femora and the elytra are now brownish although Bates stated the color as black in the original description. The anterior ivory fasciae are reduced to dots and well removed from the other pair. The specimen at hand is all black with somewhat rufous appendages.

Euderces howdeni Chemsak, new species

(Fig. 4)

MALE.—Form moderate sized; integument shining, uniformly dark reddish-brown; each elytron with an antemedian eburneous fascia; pubescence thick, white, appressed. Head with front densely clothed with appressed white pubescence and long erect hairs; eyes divided, upper lobe small; antennae about as long as body, third segment longer than scape, fourth segment three-fourths as long as third, fifth subequal to third, remaining segments shorter than fifth, subequal, basal segments sparsely clothed with long erect hairs beneath, all segments clothed with very short appressed pubescence. Pronotum slightly longer than broad, feebly impressed transversely behind apical margin; disk shining, irregularly asperate punctate; short depressed pubescence more dense at sides, long erect hairs numerously interspersed; prosternum with apical margin glabrous, remainder coarsely, deeply punctate, densely clothed with appressed pubescence; meso- and metasternum densely pubescent broadly at sides. Scutellum densely clothed with white appressed pubescence. Elytra over 2½ times longer than broad, not impressed at sides; antemedian eburneous fasciae not extending to suture nor lateral margins; short, white, appressed pubescence forming a line down suture and a broad, oblique fascia at apical one-third; short depressed hairs and very long erect hairs scattered over surface; punctures coarse, irregular, becoming finer at apex; basal gibbosities low; apices rounded. Legs clothed with long flying hairs. Abdomen rather densely pubescent; apex of last sternite slightly emarginate. Length, 7 mm.

Holotype male (Canadian National Collection) from 24 MILES W. LA CIUDAD, DURANGO, MEXICO, 20 June 1964, 7000 ft. (H. F. Howden).

This is probably the most easily recognizable species of *Euderces*. No other species has the shining integument and dense appressed pubescence.

I take pleasure in dedicating this species to H. F. Howden for his tireless efforts in collecting Cerambycidae.

EUDERCES REICHEI EXILIS Casey
(Fig. 5)

Euderces exilis Casey, 1893, Ann. N. Y. Acad. Sci., 7:591; Linsley and Martin, 1933, Entomol. News, 44:191 (habits); Vogt, 1949, Pan-Pac. Entomol., 25:144 (habits).

Apelocera exilis, Aurivillius, 1912, Coleopterorum Catalogus, 39:420.

Euderces reichei exilis, Linsley, 1964, Univ. Calif. Publ. Entomol., 22:182.

The rather dull, finely asperate disk of the pronotum characterizes this species.

TYPE LOCALITY.—Texas.

MATERIAL EXAMINED.—*Mexico*: 2 ♀, Santa Teresa, Tamaulipas, 15 May 1952 (Cazier, Gertsch, Schrammel); 1 ♀, 9 miles S. Victoria, Tamaulipas, 18 May 1952 (Cazier, Gertsch, Schrammel); 1 ♀, Llera Mesa, Tamaulipas, 1800 ft., 7 June 1961, on flowers of *Acacia wrightii* (U. Kansas Mex. Exped.).

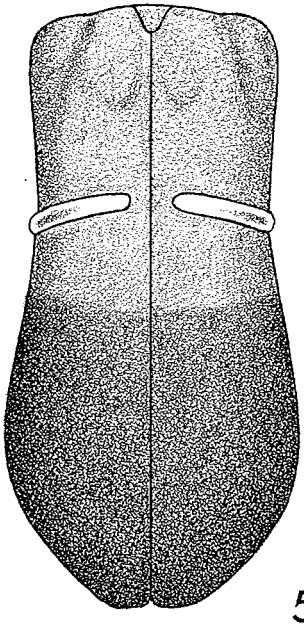
Euderces nelsoni Chemsak, new species
(Fig. 6)

MALE.—Form small, cylindrical; integument reddish, elytral apices, abdomen, and hind femora often dark. Head with front longitudinally striate, non pubescent; eyes divided, upper lobe very small; antennae extending to about apical one-third of elytra, segments three to five distinctly spined at apices, third segment about 1½ times longer than scape and fourth segment, segments from fifth gradually diminishing in length, outer segments minutely pubescent. Pronotum longer than broad; disk longitudinally striate, sparsely clothed with fine appressed pubescence, long, erect hairs numerous; prosternum glabrous apically, remainder coarsely, deeply punctate, sparsely pubescent; mesosternum with a band of appressed pubescence over epimeron; metasternum pubescent posteriorly toward sides. Scutellum sparsely pubescent. Elytra over twice as long as broad, sides impressed before middle; each elytron with an antemedian eburneous fascia extending from lateral margin but not attaining suture; basal gibbosities rather prominent; punctures very deep, close, subopaque to apical one-third, apical area non punctate; pubescence at apical one-third dense, fine, appressed, long, erect hairs sparsely interspersed toward base and apex; apices rounded to shallowly emarginate. Legs very sparsely pubescent. Abdomen sparsely pubescent; apex of last sternite narrowly rounded. Length, 5–6 mm.

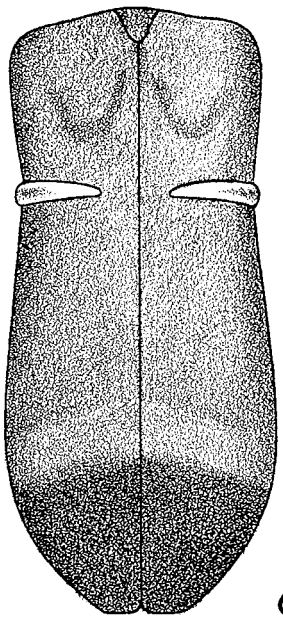
FEMALE.—Form similar. Prosternum subglabrous throughout, not punctate. Length, 5–6 mm.

Holotype male (California Academy of Sciences), allotype and 5 paratypes (2 ♂, 3 ♀) from 5 MILES N. MAZATLAN, SINALOA, MEXICO, 11 August 1965, on dead limbs (G. H. Nelson). An additional female paratype from same locality, 24–29 July 1964 (H. F. Howden).

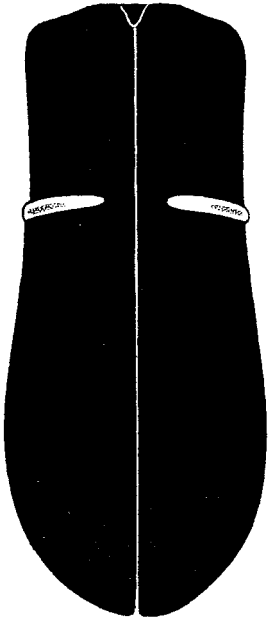
The spined apices of the elytra, single pair of eburneous fasciae, and dull reddish color readily separate this species. The type series is very uniform in coloration.



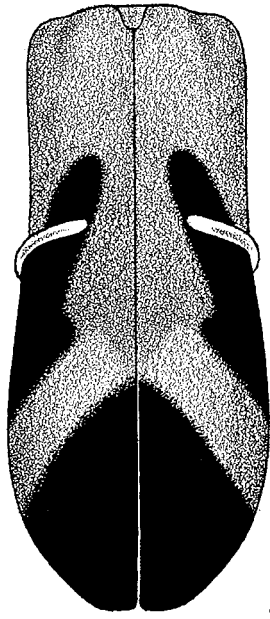
5



6



7



8

E. nelsoni is named for G. H. Nelson, who made most of the type series available for study.

EUDERCES CRIBRIPENNIS Bates
(Fig. 7)

Euderces cribripennis Bates, 1892, Trans. Entomol. Soc. London, 1892:165, pl. 6, fig. 14; Linsley, 1935, Trans. Amer. Entomol. Soc., 61:89.

This species appears very close to *E. laevicauda* but differs in being all black and lacks the fine appressed pubescence at the apical one-third of the elytra.

TYPE LOCALITY.—Chilpancingo, Guerrero.

MATERIAL EXAMINED.—2 ♂, 5 miles S. Tuxpan, Michoacan, 4 August 1962 (D. S. Verity); 1 ♀, 3 miles N.W. Santa Maria del Oro, Nayarit, 27 June 1963 (J. Doyen); 1 ♂, Cuernavaca, Morelos, 12–19 July 1961 (R. & K. Dreisbach). Linsley (1935) lists two specimens from Tejupilco, Mexico, July (Hinton and Usinger).

EUDERCES LAEVICAUDA Bates
(Fig. 8)

Euderces laevicauda Bates, 1885, Biologia Centrali-Americana, Coleoptera, 5:304.

TYPE LOCALITY.—San Gerónimo, Guatemala.

MATERIAL EXAMINED.—*Mexico*: 2 ♂, 2 ♀, Tehuacan, Puebla, 6 July 1941, 5500 ft. (H. Dybas); 2 ♀, 45 miles N. Acatlan, Puebla, 30 July 1963 (J. Doyen); 1 ♂, 18 miles N.W. Totolapan, Oaxaca, 29 July 1963 (J. Doyen); 2 ♀, 10 miles S.E. Haujuapan de Leon, Oaxaca, 27 June 1965 (Burke, Meyer, Schaffner).

LITERATURE CITED

BLACKWELDER, R. E. 1946. Checklist of the coleopterous insects of Mexico, Central America, the West Indies, and South America. U. S. Nat. Mus. Bull., 185(4): 551–763.

KNULL, J. N. 1935. New Coleoptera. Entomol News, 46:189–193.

LINSLEY, E. G. 1935. Studies in the Longicornia of Mexico. Trans. Amer. Entomol. Soc., 61: 67–102.

1942. Contributions toward a knowledge of the insect fauna of Lower California. No. 2. Coleoptera: Cerambycidae. Proc. Calif. Acad. Sci., (4)24: 21–96.

1964. The Cerambycidae of North America. Part 5. Taxonomy and classification of the subfamily Cerambycinae, tribes Callichromini through Ancylocerini. Univ. Calif. Publ. Entomol., 22: 1–197.

←

FIGS. 5–8. Typical elytral patterns of: FIG. 5. *Euderces reichei exilis* Casey. FIG. 6. *Eu. nelsoni* Chemsak. FIG. 7. *Eu. cribripennis* Bates. FIG. 8. *Eu. laevicauda* Bates.