SYNOPSIS OF THE GENUS ELYTROLEPTUS
(Coleoptera: Cerambycidae)

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R esumen

En 1879, el Dr. Eugenio Dugés propuso en La Naturaleza un nuevo género para dos especies de Cerambycidae de Guanajuato, México, que se distinguen de las pertenecientes al género próximo sudamericano Pteroplatus por poseer élitros más angostos. Estas especies fueron descritas como Elytroleptus (Elytroleptus) alfredi (que resultó ser sinónimo de Pteroplatus zulidus Thomson, 1860) y E. luteus.

Posteriormente al trabajo de Dugés, ocho especies más han sido descritas de México y siete del sureste de los Estados Unidos, de regiones cercanas a la frontera con México, la mayoría de ellas también conocidas de México. Una sola especie, E. floridanus (LeConte), se presenta mucho más allá de la región fronteriza, en el sudeste de los EE. UU.

A pesar de su interés taxonómico, Elytroleptus se destaca porque la mayoría de sus especies se asemejan en coloración a los Lycidae, y muchas también en forma, con el cuerpo aplanado y los élitros ensanchados apicalmente. Varias de ellas han sido colectadas junto con Lycidae.

La presente sinopsis es el resultado del estudio de los tipos de la mayor parte de las especies descritas, así como el material adicional obtenido de museos europeos y americanos. Se espera que este trabajo facilite la identificación de las especies y sea un incentivo para estudios ecológicos y de comportamiento que contribuyan a aclarar las relaciones entre Elytroleptus y Lycidae (véase Knüll, 1948; y Linsley, Eisner y Klots, 1964).

In 1879, Dr. Eugenio Dugés, in La Naturaleza, proposed a new genus for two species of Cerambycidae from Guanajuato, Mexico, which differed from their South American relatives of the genus Pteroplatus by having more slender elytra. They were named by him Elytroleptus (Elytroleptus) alfredi (which proved to be a synonym of Pteroplatus
pollicus Thomson, 1860) and E. intetus. In the intervening years, eight additional species have been named from Mexico and seven from southwestern United States near the Mexican border; these last mostly known to occur in Mexico, the remainder expected to occur. Only one species, E. floridanus (LeConte) occurs much beyond the border in southeastern United States. Thus the genus, as now known, is quite typically Mexican.

Aside from its taxonomic interest, Elytroleptus is of special concern to naturalists because most of the species exhibit lycid-like coloration, many are lycid-like in form, with flattened body and apically expanded elytra, and several have been collected from aggregation of lycids. The present synopsis, resulting from a study of the types of most of the described species and supplemental material available in European and American museums, is offered in the hope that it will facilitate identification of the species and ecological and behavioral studies; designed to clarify their internationships with lycids (see Knall, 1948; Linsley, Eisner and Klots, 1961).

Key to the Species of Elytroleptus

1. Elytra bicolor or black ........................................... 2
   - Elytra concolorous yellow or rufotestaceous .......................... 10
   2(1). Elytra with basal half or three-fourths yellow or rufotestaceous, anterior margin of apical dark area arching to suture or more or less transverse... 3
   - Elytra concolorous yellow or rufotestaceous .......................... 10
   3(2). Pronotum thinly clothed with erect hairs which do not obscure the shining and very coarsely confluent punctate surface, elytra tricostate; smaller species, 7-10 mm. .................................... 4
   - Pronotum largely clothed with depressed silky pubescence which obscures the surface, punctation moderately coarse; elytra quadricostate apically; large species, 12-17 mm. Western Texas to southern Arizona and northern Mexico (Chihuahua, Durango) .... apicalis
   4(3). Elytra very coarsely deeply punctate, basal area with only about three rows of punctures between the costae, pubescence short and obscure, integument rufotestaceous, apical fourth or fifth black, anterior margin of dark area transversely sinuate. 13 mm. Mexico (Querétaro, Hidalgo) ............ dichromaticus

5(2). Elytra gradate species, 13-1
   - Elytra subgradient species, 7
   6(5). Elytra coarsely clothed with posterior angle 15
   - Elytra with pronotum with appressed pubescence
   7(5). Pronotal base clothed along anterolateral angles
   - Pronotum distinctly 8(7)
   8(7). Pronotum distinct.
   - Pronotum clothed or at least obliquely clothed along anterior angles 9(7)
   9(7). Elytra nearly as concolorous integument notum, foremost of the tip black, 8-9
   - Elytra features more at base of the body of the type 10
1. Only one species, 7-10 mm. in length ............................... 6
2. Elytra gradually dilated from base, quadricostate toward apex; large species, 15-15 mm. in length ............................... 6
3. Elytra subparallel, at most slightly widened apically, tricostate; small species, 7-11 mm. in length ............................... 7
4. Elytra entirely black; pronotum with sides angulate, surface densely clothed with appressed golden tomentum except for an oval black area on posterior half of disk and another black area on each side behind lateral angle; 13 mm. Mexico (Oaxaca) .................. nigripennis
5. Pronotal disk with a pair of yellow or red, finely punctate, densely pubescent, longitudinal bands on each side of middle and a similar band along anterior margin and on each side at base ......................... 8
6. Pronotal disk coarsely punctate and subglabrous, without finely punctate, pubescent bands ......................... 9
7. Pronotum with golden yellow bands; elytra strongly costate, pale areas distinct. 8-10 mm. Southeastern Canada to Florida and eastern Texas .................. floridanus
8. Pronotum with red bands; elytra less strongly costate, pale areas reduced or absent in typical form, basal one-fourth reddish-yellow extending obliquely backward from sutural margin to side and along lateral margin to apex in var. obtusus, 7-10 mm. Western Texas (Davis and Chisos Mountains) ............ immaculipennis
9. Elytra not more than three times as long as basal width, basal punctures as coarse as those of disk of pronotum, costae distinct throughout, integument pale yellow, dark area confined largely to apical half; pronotum, ferruginous, with an oval darker impression on each side; abdomen black or picaceous; posterior tibiae, apex of intermediate; tibiae, and tarsi black, 8-9 mm. Texas and northern Mexico (Tamaulipas) ............ divisus
10. Elytra moderately coarsely and shallowly punctate, basal area with five or six rows of punctures between the costae, pubescence long and conspicuous, integument lemon yellow, apical one-third black, anterior margin of dark area arched to the suture, 7-10 mm. Mexico (Sonora, Chihuahua, Sinaloa, Morelos, Nayarit, Mexico, Guerero) .................. scabriocollis
10(1). Pronotum yellow or yellow-orange, if margined or clouded with black; disk predominantly yellow .......................... 11
   - Pronotum black or with extensive black areas; mid-line of disk always black .................. 14

11(10). Head and pronotum yellow-orange, pronotum sometimes margined with black or clouded with black; elytra yellow or yellow-orange .......................... 12
   - Head and pronotum yellow, elytra reddish-yellow; ventral surface and legs largely brown. 8 mm. Western Texas (Davis Mountains) ........ lineatus

12(11). Elytra expanded apically, surface moderately to finely punctate; the punctures less distinct toward apex .......................... 13
   - Elytra subparallel, each tricostate, the costae prominent, punctures coarse and distinct from base to apex; pubescence sparse; thoracic and abdominal sternum largely black or piceous. 8-11 mm. Central México (Guanajuato, México); Durango to western Texas and southern Arizona . luteus

13(12). Elytra tricostate throughout; elytral base, epipleura, and femora rather densely clothed with much longer erect and suberect hairs than remainder of elytra. 8-10 mm. México (México) ........ palidus villosus
   - Elytra tricostate at base, quadricostate behind middle, the short costa less elevated; elytral base, epipleura and femora clothed with suberect hairs similar in length to those of remainder of elytra. 12-16 mm. Southern Arizona and northern México (Chihuahua, Durango) ....... inquinus

14(10). Pronotum black ........................................... 15
   - Pronotum reddish-yellow or bicolorered ........................................... 16

15(14). Elytra tricostate, yellow, clothed with long suberect hairs; pronotum with disk very coarsely punctate except for an irregular median smooth area at base and an antemedian tubercle on each side. 9 mm. México (Querétaro) .................. scabriollis var.
   - Elytra quadricostate; ferrugineous, clothed with short recumbent golden pubescence; pronotum with disk flattened, coarsely rugose. 11.5 mm. Western Texas (Davis Mountains) ........ davisi

16(14). Pronotum with longitudinal or reddish pubescent vittae .................. 17
   - Pronotum subglabrous, disk very coarsely, deeply punctate, ferrugineous with an oval black area at middle, sides depressed black; elytra yellow, coarsely punctate, tricostate, innermost costa converging to suture near middle. 8 mm. México (Querétaro, Hidalgo) ........ diechromaticus

17(16). Elytra dilated from in front of middle, disproportionately long, tricostate at base, quadricostate behind middle; the short costa less elevated; elytra reddish-yellow to fulvochraceous. 11-14 mm. Southern Arizona and New Mexico to Oaxaca, México .................. rufipennis
   - Elytra gradually and moderately dilated posteriorly, tricostate throughout.
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state throughout,
midline of pronotum, sides of pronotum and prosternum, scutellum, a
transverse ante-median band on the elytra black or very dark piceous,
elytral apices broadly black with a very slight violaceous or bluish tint,
ante-tibiae at apex intermediate and posterior tibiae except base, dark piceous, prosternum at sides, met-episterna and sides of metasternum
brownish piceous, abdomen brownish testaceous; pubescence mostly
yellow on yellow, areas black on dark areas, suberect beneath and
on appendages, in part erect on sides of pronotum, and mostly appre-
sessed elsewhere. Head with vertex and frons finely punctate, the former
with a few superimposed coarser punctures; antennae serrate, reaching
clothed with coarse suberect black hairs, fifth and sixth segmentes
partially so, remaining segments clothed with fine short appressed black
pubescence, with a few, scattered, short erect setae, fourth segment
shorter than third or fifth, third and fourth segmentes thickened apically,
remaining segments expanded at apex, eleventh segment appendiculate,
distinctly longer than tenth. Pronotum a little wider than long, sides
broadly rounded, with an oval impression above the margin, mid-line
black, coarsely confluenty punctate except for a somewhat oval black
area just in front of, and a little larger than scutellum, which is densely
but more finely punctate, longitudinal pubescent band on each side of
mid-line, golden yellow, lateral impression black, very coarsely, con-
fluently punctate; prosternum shining and almost impunctate in the con-
ceave ante-epistomal impression, coarsely confluenty punctate at sides; meso-
and metasternum shining, finely and very sparsely punctate, thinly pubes-
cent; met-episterna finely but more densely punctate. Elytra elongate
flaring from in front of middle, tricostate basally, quadricostate over
apical half, the short accessory costa less elevated, surface distinctly but
only moderately coarsely punctate, subbasal punctures mostly separated
by one diameter or less, about seven or eight rows of punctures between
the first two costae, punctures not distinct in apical dark area which is
rough and scabrous, ante-median dark area shallowly transversely roun-
ded behind, anterior margin extending obliquely forward toward scutellum,
apical dark area covering a little more than one-third of elytral
apices, anterior margin sinuate, apices separately rounded, fringed with
course black hairs. Abdomen shining, thinly clothed with suberect ye-
ellow hairs. Legs slender, femora thinly clothed with suberect hairs of mod-
date length. Length 14.5 mm.

The above, "Cuernav."), Mexico Academy of Sciences to which it bears
oration. This ecology:...
Elytroleptus rufipennis (Le Conte)

Pteroplectus rufipennis LeConte, 1884, Trans. Amer. Ent. Soc. 12:23

Elytroleptus eros Bates, 1885. Biología Centrali-Americana, Coleoptera, 5:318, pl. 21, fig. 3.

Elytroleptus longipennis Bates 1885, Biología Centrali-Americana, Coleoptera, 5:318.

Male: Dorsal surface red or reddish-orange, fading to orange or yellowish-orange; antennae, sides of head and pronotum, and discal line on pronotum, black; ventral surface dark brown or blackish; femora, except base and apex, yellow or orange, the dark base and apex very narrow on profemora, successively broader on meso- and metafemora; pubescence golden and silky on pale areas, coarser and black on dark areas, except for the femora which have a mixture of the two on the yellow areas of the posterior pairs. Head finely punctate above; antennae short, reaching only to middle of elytra. Pronotum wider than long, sides broadly rounded or subangulate, nearly oval black area which is distinctly but coarsely punctate in the posterior pair, extending to sides; meso- and metathorax, thinly pubescent black. Elytra elongate, quadricostate over base, then apically, surface distinctly but coarsely punctate, mostly separated by punctures; dark area which is broadly rounded, subangulate toward posterior third of elytral length, fringed with suberect yellow hairs. Abdomen shining, sternites thinly clothed, with long erect hairs; fifth sternite not or scarcely emarginate at apex, sixth tergite clothed apically with straight hairs. Length, 13-14 mm.

Female: Antennae extending over basal one-third of elytra; abdomen with fifth sternite emarginate at apex, sixth tergite densely fringed with conspicuous curved hairs. Length, 13 mm.
I have seen no Mexican records beyond those of the types of \textit{eros} Bates and \textit{longipennis} Bates, and United States material before me is primarily from the Chiricahua Mountains, Arizona. D. J. and J. N. Knell took an example in the Hualpai Mts., Arizona 4, 1937, and a single female of a color variety, subspecies, or distinct but closely related species, in the Davis Mountains, Texas, June 17, 1958. This last differs in the concolorous reddish-yellow head and thorax, yellow mesosternum, and paler legs, which are yellow except for the tarsi and apices of meso-and metatibiae.

\textbf{Elytroleptus nigripennis} Bates


I have seen only the type of this species, which is from Oaxaca. The elytra are entirely black, as in \textit{Lycus} (\textit{Lycostomus}) \textit{sonduk} Gorham.

\textbf{Elytroleptus pallidus} (Thomson)


\textit{Elytroleptus alfredi} Dugès, 1879, La Natureza, 4:185.


A variety of \textit{E. pallidus} in which the male has yellow elytra, the
of the types of *eros* material before me is by D. J. and J. N. 8. This last differs D. J. and J. N.

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Mus. Nat.

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JALISCO: Lagos

Mus. Nat. Hist),

Mus. Surv.) (H. E.

Jyr., June 15-July

June 23, 1951

yellow elytra, the

Explanation of Plate

Upper: *Lycostomus lorius* Chevrolat (left) and mimic, *Elytroleptus ignitus* (Le Conte) right. Middle: *Lycus fernandezii* Dugés (left) and mimic, *Elytroleptus apicalis* (LeConte) right. Lower: *Calopteron* sp. (left) and mimic, *Elytroleptus grandis* Linsley, right.
female red, has been seen as follows: DURANGO: Durango City (H. F. Wickham, U.S. Nat. Mus.), 10 miles west of Durango City, July 12, 1954 (J. W. MacSwain, E. I. Schlinger, Calif. Ins. Surv.); MEXICO: Teotihuacan Pyr., June 15, 1951 (P. D. Hurd, Calif. Ins. Surv.)

*Elytroleptus pallidus ciliomus* Linsley, a subspecies with long erect hairs on the elytral epipleura and femora is from Bejucos, District of Temascaltepec, Mexico.

**Elytroleptus floridanus** (Le Conte)


The type of this species is a female. The Aurivillius and Leng catalogues list *Ancylocera brevicornis* Casey in synonymy as the female of *floridanus* LeConte. However, the latter is a true *Ancylocera*, not an *Elytroleptus*.

**Elytroleptus immaculipennis** Knell


Material examined: two females from the Chisos Mountains, Texas, July 18, 19 (J. W. Green, Calif. Acad. Sci.). One example has the elytra black except for the narrow elevated basal two-thirds of the lateral margin, the second example is colored as the variety *obliquus*.

**Elytroleptus scabricollis** Bates


The color pattern of this species suggests a lydic model such as *Lyctus* (*Lyctostomus*) *semius* Chevrolat.

Examples of typical *scabricollis* have been seen from the following localities: SONORA: Minas Nuevas, August 7, 1952 (C. and P. Vau-

This species shows considerable variation in color, one variety differing by having the male elytra concolorous yellow, without black tips. This form has been seen from MORELOS: Alpuyeca, July 3, 1951 (P. D. Hurd, Calif. Ins. Surv.) and July 8, 1951 (H. E. Evans, Cornell Univ. Coll.); and NAYARIT: Tepic, June 24, 1940 (L. W. Saylor, Calif. Acad. Sci.).

**Elytroleptus divisus** (Le Conte)


The type of this species is a male from Dallas, Texas. Mexican material has been examined from the following places: TAMAULIPAS: Villagran, June 7, 1951 (P. D. Hurd, Calif. Ins. Surv.) (H. E. Evans, Cornell Univ. Coll.), 14 km. south of Villagran, 1100 ft., May 25, 1948 (F. Werner, W. Nutting, Mus. Comp. Zool.); NUEVO LEÓN: Valleculillo, June 2-5, 1951 (H. E. Evans, Cornell Univ. Coll.).

**Elytroleptus humeralis** Linsley


E. *humeralis* is related to E. *divisus*, but it is more elongate, with the pale areas of the elytra bright rufo-testaceus, rather than yellow, and restricted largely to the humeral and lateral areas. Material has been seen only from CHIHUAHUA (Salacis; 20 miles SW of Camargo; 42 miles SW of Camargo).

**Elytroleptus dichromaticus** Linsley


In this species the male elytra are concolorous lemon yellow, those of the female black tipped. The type locality is Queretaro, QUERETARO. The species has been taken also at Zimapán, Hidalgo, on flowers...
of Eysenhardtia polyacantha.

Elytroleptus luteus luteus Dugès

Elytroleptus luteus Dugès, 1879, 1a Naturalicza, 4:185, pl. 6, fig. 10.

In addition to material from Guanajuato, the type locality, I have seen only the following: MEXICO: Bejuco, Temascaltepec, July 5, 1933 (H. E. Hinton and R. L. Usinger, Calif. Acad. Sci.).

Elytroleptus luteus davisi Knnull


Examples have been examined as follows: TEXAS: Davis Mountains (D. J. and J. N. Knnull); ARIZONA: Douglas, August (Liebeck, in H. C. Fall collection, Mus. Comp. Zool.), Ruby Road, Atascosa and south trail, near Nogales, July 1959, on Lippia lagutrina (?) (Wilson and Kaiser, U.S. Nat. Mus.); DURANGO: 10 miles west of Durango, July 12, 1954 (E. I. Schlinger, California Insect Survey). The latter example has the disk of the pronotum marked with black.

Elytroleptus lineatus Knnull


This species, described from the Davis Mountains, Texas, undoubtedly occurs in northern Mexico. I have not seen the type, a female characterized by "the narrow elongate form and two-tone dorsal color".

ACKNOWLEDGMENTS

The author is indebted to the National Science Foundation for making this a number of related studies possible during his tenure as Research Professor, Miller Institute, University of California. Types of described species were kindly made available at the American Museum of Natural History, New York, by J. G. Rozen, Jr., at the British Museum (Natural History), London, by E. B. Britton, at the California Academy of Sciences, San Francisco, by E. S. Ross, at the Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, by P. J. Darlington, and at the Museum National d’Histoire Naturelle, Paris, by André Villiers.
I have examined this specimen from the type locality, I have
confirmed the original data that the type specimen was collected on July 5, 1933
and then the type locality is located in Tepec, Durango.

DUGÉS, E. 1879. Descripción de Coleopteros indígenas. La Naturaleza,
4:169-188.


LITERATURE CITED


DUGÉS, E. 1879. Descripción de Coleopteros indígenas. La Naturaleza, 4:169-188.


