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## A REVISION OF THE SPECIES BELONGING TO THE NEW CLERID GENUS *ARAEODONTIA* (COLEOPTERA)<sup>1</sup>

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For the past several years the writer has been engaged in a revisional study of the species belonging to the clerid genus *Cymatodera*. This study has shown that a few groups of species assigned to that genus should be placed in other genera in order that relationships can be expressed best. The present paper treats one of these species groups. This group, which is being assigned to a new genus, consists of five species, two of which are described as new.

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#### DISTRIBUTION AND SPECIATION

The genus *Araeodontia* is endemic to the southwestern United States, Lower California, and northern Mexico and apparently is restricted to the more arid parts of these regions. Development of the species probably has been in part a response to this condition of aridity.

On the basis of morphological characters, the genus appears to be divided into two closely allied groups of species, *picta* and *peninsularis*. *A. picta* is the sole representative of the *picta* group. The structure of the teeth on the tarsal claws suggests that this species is probably the most primitive member of the genus. It is allopatric in distribution with the members of the *peninsularis* group, occurring in an area of northern Mexico well isolated from these other species.

An interesting pattern of speciation can be traced upon examination of several morphological characters and the geographic ranges of the four species that make up the *peninsularis* group. *A. peninsularis*, on the basis of elytral markings and structure of the male genitalia, appears to be the primitive member of this group. It occupies the most widespread range of any of the other species, occurring throughout the Lower California peninsula and then in a west-east plane across southeastern California, southern Arizona, and southern New Mexico. In several areas of this range, it occurs in a sympatric manner with the other members of the group. It apparently is in an active evolutionary stage at the present time. The other species very likely could have arisen from *A. peninsularis*, for they easily can be traced

from that species. Their development has occurred in two directions from the pattern exhibited by *A. peninsularis*. *A. picipennis* represents the condition of increased dark pigmentation of the body. It is known only from near the Cape Region of Lower California, in the southwest extreme of the range of *A. peninsularis*. *A. marginalis* and *A. isabellae*, on the other hand, represent the condition of reduction, both in dark elytral markings and in the structure of the lateral lobes of the male genitalia. The elytral markings of *A. marginalis* can be clearly traced from the condition of reduced markings occurring in some specimens of *A. peninsularis*. However, the pattern of the elytral markings of *A. marginalis* appears to be quite stable. This species no doubt occurs in a sympatric manner with *A. peninsularis*. Its known range occurs along the eastern periphery of that of *A. peninsularis* in extreme western Texas and adjoining Mexico. The elytral markings of *A. isabellae* constitute further reduction from those of *A. marginalis*. This reduction is carried out nearly to the extreme, for in some specimens the elytra are nearly immaculate. These two species are allopatric in distribution. *A. isabellae* occupies the most northerly range of any of the species of *Araeodontia*, occurring in northern Lower California, southeastern California, Arizona, central and southern Nevada, and southwestern Utah. In the southern parts of its range, it occurs in a sympatric manner with *A. peninsularis*.

#### CLASSIFICATION

##### **ARAEODONTIA** BARR, NEW GENUS

Moderately slender, subparallel. Head short; labrum transverse, front margin feebly emarginate at middle; maxillary palpus with last segment somewhat flattened, elongate; labial palpus with last segment securiform; eyes emarginate, coarsely granulate, moderate in size; antenna long, 11-segmented, segments nearly cylindrical, basal segment enlarged, curved, serrate from fifth segment, last segment less than twice the length of penultimate segment. Prothorax cylindrical, without lateral margins, nearly impunctate; sides constricted in front of and behind middle; subbasal tumescences absent. Elytra covering abdomen, each with 10 rows of moderate-sized punctures; suture closed. Hind wings present. Metasternum without a median depression near front margin. Legs rather slender; tarsi with five segments, all

visible from above, segment 4 the shortest; claws rather long, inner surface near base with two more or less slender teeth, situated in close proximity to each other, both shorter than acuminate apex of claw. Abdomen with six visible sternites; fifth and sixth segments differing between male and female; sixth tergite of male with ventral surface carinate.



FIGS. 1-2. Tarsal claw of *Araeodontia* and of *Cymatodera*. 1. *Araeodontia peninsularis* (Schaeffer). 2. *Cymatodera oblita* Horn.

TYPE OF THE GENUS: *Cymatodera peninsularis* Schaeffer.

In addition to the genotype, two other species described as *Cymatodera*, *C. picipennis* Barr and *C. isabellae* Wolcott, are placed in the genus *Araeodontia*.

*Araeodontia* belongs in the Tillinae and is closely related to *Cymatodera*, but differs in having the two teeth on the inner margin of the tarsal claw situated very closely together, well above the base of the claw and both similar in size and shape.

#### KEY TO THE SPECIES

1. Elytra brown or piceous in color, with testaceous spots or fasciae..... 2
- Elytra testaceous in color, with dark markings..... 4
2. Elytra with distinct antemedian spots or fascia..... 3
- Elytra without distinct antemedian markings..... *picipennis*
3. Elytra more than two and one-third times longer along suture than width behind humeri, antemedian spots never broadly joined to lateral margins of elytra..... *picta*
- Elytra less than two and one-fourth times longer along suture than width behind humeri, antemedian spots or fascia usually broadly joined to lateral margins of elytra..... *peninsularis*
4. Elytra with lateral and sutural margins in part dark..... 5
- Elytra with a continuous dark stripe extending along lateral and sutural margins..... *marginalis*
5. Elytra with short, subapical dark spots on sutural and lateral margins.. *isabellae*
- Elytra with dark basal and subapical markings, frequently taking the form of broad fasciae..... *peninsularis*

***Araeodontia picta* Barr, new species**

Figure 3

MALE: Medium sized, testaceous; antennae and mouth parts dark testaceous; elytra piceous, with a pair of large, pale testaceous, antemedian spots, narrowly prolonged posteriorly near

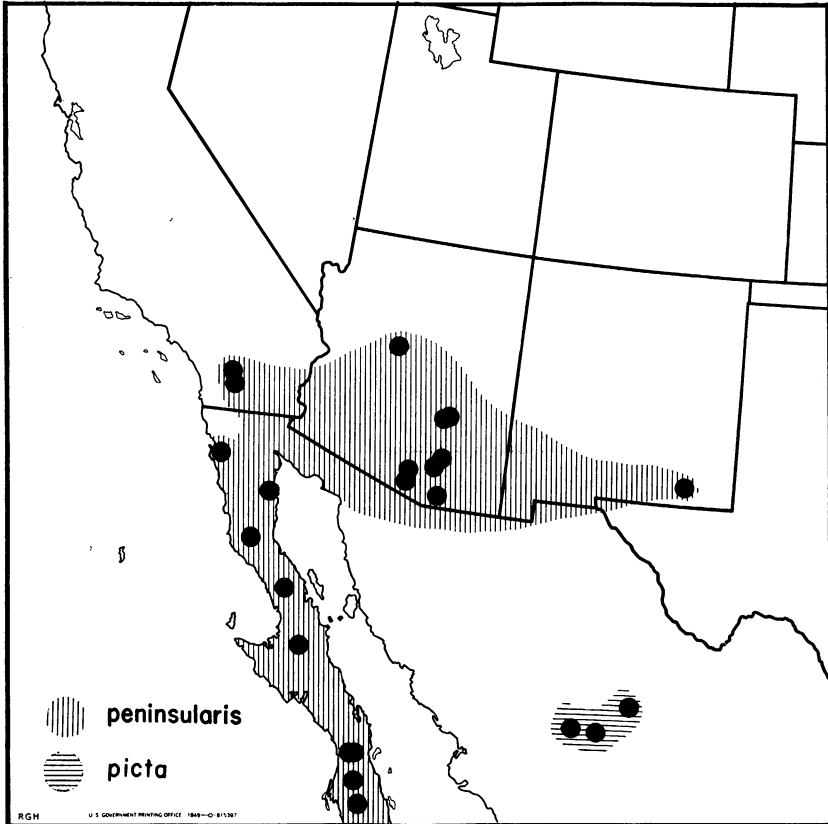


FIG. 3. Distribution of *Araeodontia peninsularis* (Schaeffer) and *A. picta* Barr.

lateral margins and a pair of slightly smaller, pale testaceous, subapical spots; legs with apex of femur and outer surfaces of tibia and tarsus dark testaceous. Head finely, sparsely punctured, moderately clothed with short, semirecumbent, fine, pale hairs, sparsely intermixed with short, suberect, stiff hairs;

front faintly bi-impressed; eyes with distance between them about one and three-fourths times the length of last antennal segment; antenna slender, extending to about basal third of elytra, ratio of lengths of segments 1 to 11, 10:5:6:7:8:8:8:8:8:8:13, last segment robust, feebly aciculate, narrowly rounded at apex; maxillary palpus with last segment slender, sides more or less parallel, apical margin broadly rounded. Prothorax finely, sparsely punctured, nearly smooth, moderately clothed with very short, semirecumbent, fine, pale hairs, sparsely intermixed with longer, suberect, stiff hairs; pronotum broader along front margin than hind margin (36:29), broadest at middle, slightly less than one and one-fourth times longer than median width (46:38); sides moderately constricted in front of middle, strongly constricted behind middle; disk feebly flattened, with a faintly indicated, transverse impression in front of middle; antescutellar impression distinct. Scutellum transverse; sides arcuate; hind margin broadly notched at middle; disk somewhat flattened, very finely, sparsely punctured. Elytra densely but inconspicuously clothed with very short, semirecumbent, fine, pale hairs, moderately intermixed with short, suberect and erect, stiff hairs; length along suture slightly more than two and one-third times the width behind humeri (130:55); postscutellar impression very faintly indicated; humeri distinct; sides parallel; apices broadly rounded, sutural angles nearly square; disk feebly convex, striae extending to about apical fourth, strial punctures round, deep, small in size, interstrial spaces finely, sparsely punctured. Mesosternum nearly smooth, shining. Metasternum convex, with a longitudinal impression in front of hind margin at middle, finely, sparsely punctured, more densely punctured at middle; midline interrupted before front margin. Legs very finely and densely punctured and rugose, densely but inconspicuously clothed with short, recumbent to suberect, pale hairs, tarsal claws with teeth short and moderately robust, outer tooth slightly longer. Abdomen densely punctulate; sternites 1 to 4 with a smooth, submarginal area, hind margins narrowly membranous; fifth sternite shallowly depressed medially, lateral margins strongly oblique, feebly arcuate, hind margin broadly, semicircularly emarginate; sixth sternite broader than long, lateral margins nearly parallel, hind angles nearly square, broadly rounded, hind margin more or less broadly arcuate, deeply, nearly semicircularly notched at middle; sixth tergite broader (except at extreme base) and longer

than sixth sternite, slightly broader than long, disk feebly convex, lateral margins slightly oblique, hind margin nearly semicircularly rounded, ventral surface with a very distinct, broad, transverse, subapical, V-shaped carina. Length: 6.5 mm.

FEMALE: Distance between eyes about twice the length of last antennal segment. Ratio of lengths of antennal segments 1 to 11, 11:5:8:9:11:10:10:9:8:8:14. Abdomen with hind margin of fifth sternite broadly, very shallowly, arcuately emarginate; sixth sternite with hind margin broadly rounded; fifth tergite with hind margin more or less truncate; sixth tergite with hind margin more or less semicircularly rounded. Length: 7.8 mm.

TYPE MATERIAL: Holotype male and allotype female (the American Museum of Natural History) from Valle de Olivos, Chihuahua, Mexico, 5500 feet, July 20, 1947 (M. A. Cazier). One female paratype from 20 miles southwest of Camargo, Chihuahua, Mexico, 4500 feet, July 13, 1947 (M. A. Cazier), and three female paratypes from 63 miles west of Santa Barbara, Chihuahua, Mexico, 5500 feet, July 20, 1947 (W. Gertsch, C. D. Michener). Paratypes in the collections of the American Museum of Natural History and the writer.

BIOLOGY: No information available.

This pretty species is remarkably constant in coloration and elytral markings. No difficulty should be encountered in distinguishing it from the other members of the genus *Araeodontia*. The markings of the elytra taking the form of large spots and its more slender shape readily differentiate it from *A. peninsularis* which it may superficially resemble. There also are differences of a specific nature to be found in the dissected male genitalia. Unfortunately, the genitalia of the single male specimen of *A. picta* available for study are partially broken and much distorted. It has been impossible therefore, adequately to figure these structures. In general the lateral lobes appear to resemble those of *A. isabellae* more than *A. peninsularis*. However, they are much shorter and more robust in appearance, with the basal piece very short and slender compared to that of *A. isabellae*. The apices of the lateral lobes are slender, similar to those of *A. isabellae*, but are separated by a deep triangular emargination. The median lobe is slender and elongate, with the sides slightly expanded at the apical third, then gradually but distinctly constricted and then slightly expanded again near the apex. In spite of superficial resemblance in shape, the genitalia of *A. picta*

do not show close relationship with the genitalia of *A. isabellae*, nor do they exhibit the reduction that has taken place in these organs of *A. isabellae*.

***Araeodontia peninsularis* (Schaeffer), new combination**

Figures 1, 3, and 5

*Cymatodera peninsularis* SCHAEFFER, 1904, Jour. New York Ent. Soc., vol. 12, p. 214. WOLCOTT, 1910, Field Mus. Nat. Hist., zool. ser., vol. 7, no. 10, p. 346; 1921, Proc. U. S. Natl. Mus., vol. 59, p. 286. CHAPIN, 1949, Smithsonian Misc. Coll., vol. 111, no. 4, p. 9. BARR, 1950, Proc. California Acad. Sci., ser. 4, vol. 24, no. 12, p. 494.

MALE: Medium sized, slender, pale testaceous; head brown, antennae light brown; pronotum with front margin broadly piceous; elytra with a broad, piceous, basal fascia, prolonged posteriorly along suture and a broad, irregular, piceous, subapical fascia, broadest at sutural and lateral margins; femora with apices light brown, tibiae and tarsi entirely light brown in color. Head very finely, sparsely, shallowly punctured, densely but inconspicuously clothed with very short, subrecumbent, fine, pale hairs, sparsely intermixed with much longer erect hairs; front feebly bi-impressed; eyes with distance between them about one and three-fourths times the length of last antennal segment; antenna robust, extending nearly to basal fourth of elytra, ratio of lengths of segments 1 to 11, 12:5:6:6:9:7:7:7:7:12, last segment robust, feebly aciculate, very narrowly rounded at apex; maxillary palpus with last segment broadest in front of middle, sides more or less parallel, apical margin broadly rounded. Prothorax finely, sparsely punctured, very feebly rugose, densely but inconspicuously clothed with very short, subrecumbent, fine, pale hairs, sparsely intermixed with much longer, erect, stiff hairs; pronotum broader along front margin than hind margin (33:30), broadest at middle, about one and one-third times longer than median width (45:34); sides feebly constricted in front of middle, strongly constricted behind middle; disk feebly convex, with a faintly indicated, transverse impression in front of middle; antescutellar impression nearly absent. Scutellum oval, broader than long; disk flattened, finely, sparsely punctured; hind margin notched at middle. Elytra densely clothed with very short to short, suberect, pale hairs; length along suture slightly more than twice the width behind humeri (117:54); postscutellar impression faintly indicated; humeri distinct; sides parallel; apices broadly



rounded, sutural angles feebly rounded; disk flattened, striae extending beyond apical fourth, strial punctures small, round, interstrial spaces at middle, much broader than width of strial punctures, nearly smooth. Mesosternum very finely, sparsely punctured, nearly smooth. Metasternum convex; disk somewhat flattened, with a strongly indicated, longitudinal impression in front of hind margin at middle, finely, sparsely punctured, densely punctured and feebly roughened near middle; midline interrupted before front margin. Legs finely, densely punctured, finely rugose, densely but inconspicuously clothed with very short, subrecumbent, fine, pale hairs, sparsely intermixed with much longer, erect, stiff hairs; tarsal claws with teeth short and moderately slender. Abdomen finely, densely punctured; sternites 1 to 4 with hind margins narrowly membranous; fifth sternite with hind margin broadly and deeply, more or less triangularly emarginate; sixth sternite much broader than long, lateral margins strongly oblique, arcuate, hind margin broadly rounded, impressed and strongly notched at middle; fifth tergite with hind margin feebly emarginate, strongly notched at sides; sixth tergite as long as basal width, broader (except at extreme base) and much longer than sixth sternite, disk more or less convex, lateral margins feebly arcuate, slightly converging towards apex, hind angles broadly rounded, hind margin very broadly rounded, broadly but feebly notched at middle, ventral surface with a strongly indicated, transverse, V-shaped, subapical carina. Length: 5.2 mm. to 7.5 mm.

FEMALE: Distance between eyes about twice the length of last antennal segment. Ratio of lengths of antennal segments 1 to 11, 12:5:7:6:9:8:8:8:8:8:14. Abdomen with hind margin of fifth sternite broadly rounded, deeply incised at middle; sixth sternite small, hind margin semicircularly rounded; fifth tergite with hind margin more or less truncate; sixth tergite with disk more or less vertical, flattened, hind margin semicircularly rounded. Length: 5.3 mm. to 7.5 mm.

TYPE LOCALITY: San Felipe, Lower California [Cape Region].

LOCATION OF TYPE: United States National Museum.

GEOGRAPHICAL RANGE: Southern New Mexico and southern Arizona through southeastern California and Lower California.

MATERIAL EXAMINED: *Arizona*: Baboquivari Canyon, Baboquivari Mountains, July 17, 1949 (F. Werner and W. Nutting); Baboquivari Mountains (F. H. Snow); Black Dike Prspct.,

Sierritas, 3750 feet, July 26–29, 1916; Coyote Mountains, 3500 feet, August 4–7, 1916; Globe, July 21, 1922 (D. K. Duncan); Hualpai Mountains, July 4 (D. J. and J. N. Knull); Miami, July 22, 1932 (R. H. Beamer); Madera Canyon, Santa Rita Mountains, August 18, 1949 (L. Martin); Santa Rita Mountains, July 13 (D. J. and J. N. Knull); Tucson, July 12 (D. J. and J. N. Knull) and August 5, 1935. *California*: Borego Valley, San Diego County, June 6 and 10, 1940; Palm Canyon, Riverside County, July 11, 1940 (R. Husbands). *New Mexico*: Carlsbad, July 27 (D. J. and J. N. Knull). *Lower California*: 17 miles south of Ensenada, July 14, 1938 (Michelbacher and Ross); San Felipe [northeast Lower California], June 1939 (E. S. Ross); San Fernando, July 31, 1938 (Michelbacher and Ross); 15 miles north of Punta Prieta, July 29, 1938 (Michelbacher and Ross); 45 miles north of San Ignacio, July 27, 1938 (Michelbacher and Ross); 15 miles west of San Miguel, July 20, 1938 (Michelbacher and Ross); 5 miles south of San Miguel, July 20, 1938 (Michelbacher and Ross); San Domingo, July 19, 1938 (Michelbacher and Ross); 15 miles north of El Refugio, July 4, 1938 (Michelbacher and Ross); Venancio, July 17, 1938 (Michelbacher and Ross); 15 miles southeast of Arroyo Seco, July 16, 1938 (Michelbacher and Ross); San Felipe (G. Beyer); "L. Cal."

BIOLOGY: Taken at lights.

This species has been recorded previously from Lower California and Arizona.

*Araeodontia peninsularis* as noted in the introduction occupies the most widespread range of any of the other *Araeodontia* species. Throughout this range it exhibits considerable variation, both in antennal structure and body color. The second segment of the antenna is frequently much shortened, varying to one-half of the length of the third segment. The head and pronotum vary from a nearly entirely piceous color to an entirely testaceous condition. The elytral markings also show a great deal of variation. Occasionally the basal fascia is reduced to a large scutellar marking, or the basal and subapical fasciae are reduced and narrowly joined along the suture. Other specimens have been seen which have the subapical fascia reduced to elongate, sutural and marginal spots. In such cases, however, the basal markings are present. Sometimes the apical margins of the elytra are narrowly piceous in color. The writer has previously noted (1950) an extreme condition in a Lower California specimen which

had two elongate, antemedian, pale spots and two subapical pale spots on the black elytra. Similarly marked specimens from southern Arizona recently have been seen.

This species is most closely allied to *A. picipennis*, with which it occurs in a sympatric manner. From that species, *A. peninsularis* is separated by the nature of the elytral markings and the structure of the tarsal claws. Specimens of *A. peninsularis* resembling *A. picta* are distinguished by the absence of a narrow, posterior prolongation of the antemedian pale spots near the lateral margins of the elytra.

***Araeodontia picipennis* (Barr), new combination**

*Cymatodera picipennis* BARR, 1950, Proc. California Acad. Sci., ser. 4, vol. 24, no. 12, p. 495.

This species is known only from the female holotype, and since this specimen was not available for study a detailed redescription of the species cannot be included in this revision. This is unfortunate for there is a question on the part of the writer as to the validity of *A. picipennis*. It is closely related to *A. peninsularis* and may represent but an extreme in the color variation of that species. *A. picipennis* has the elytra nearly piceous in color, except for a very faint indication of paler antemedian markings and brownish subapical spots. Specimens of *A. peninsularis* approach this condition. Differences in the structure of the tarsal claws of these two forms have been noted, however, by Dr. J. G. Edwards who has examined the type of *A. picipennis* for the writer. The two teeth on the inner margin of the claw of this species are very slender and very close together. In *A. peninsularis* these teeth are thicker and distinctly separated. Since these relative differences may be of a specific nature, *A. picipennis* is retained as a distinct species until additional material can be examined.

TYPE LOCALITY: Venancio, Lower California.

LOCATION OF TYPE: California Academy of Sciences.

GEOGRAPHICAL RANGE: Southern Lower California.

MATERIAL EXAMINED: No specimens available for study.

BIOLOGY: No information available.

***Araeodontia marginalis* Barr, new species**

Figures 4 and 6

MALE: Medium sized, testaceous; head piceous, brown near

clypeus, ventral surface dark testaceous, antennae brown; front margin of pronotum broadly dark brown; elytra with a rather broad piceous, marginal stripe and a narrower, sutural stripe which are expanded at base and behind middle and which are narrowly joined near apices, epipleurae testaceous; femora piceous at apices, tibiae piceous on outer, basal half. Head finely, sparsely punctured, moderately clothed with short, recumbent and sub-erect, pale hairs; front very faintly bi-impressed; eyes with distance between them about one and three-fourths times the length of last antennal segment; antenna slender, extending to about basal third of elytra, segments 5 and 6 feebly serrate, segments 7 to 10 more strongly serrate, ratio of lengths of segments 1 to 11, 17:7:10:14:15:13:13:12:12:12:18, last segment slender, feebly aciculate, narrowly rounded at apex; maxillary palpus with last segment broadest at apex, apical margin broadly rounded. Prothorax smooth, except for a few fine punctures near front margin, moderately clothed with very short, semirecumbent, fine, pale hairs, intermixed with longer, suberect, stiff hairs; pronotum broader along front margin than hind margin (52:46), broadest at middle, slightly less than one and one-fourth times longer than median width (64:54); sides moderately constricted in front of middle, strongly constricted behind middle; disk feebly flattened, with a faint indication of a transverse impression in front of middle; antescutellar impression wanting. Scutellum subrectangular, broader than long; disk flattened, finely punctured; hind margin notched at middle. Elytra densely but inconspicuously clothed with very short, semirecumbent, fine pale hairs, moderately intermixed with short, suberect, stiff hairs; length along suture slightly less than two and one-fourth times the width behind humeri (180:82); postscutellar impression faintly indicated; humeri distinct; sides parallel; apices broadly rounded, sutural angles nearly square, narrowly rounded; disk somewhat convex, striae extending to about apical fourth, first and second rows scarcely attaining middle, striae punctures round, deep, small, becoming finer and shallower posteriorly, interstriae spaces at middle, much broader than width of striae punctures, finely punctulate. Mesosternum smooth, shining; triangular, apical half of episternum sparsely punctulate. Metasternum convex, with a longitudinal impression in front of hind margin at middle, nearly smooth; midline entire. Legs finely, densely punctured and rugose, densely but indistinctly clothed with short, suberect and

recumbent, pale hairs; tarsal claws with teeth short and moderately slender. Abdomen moderately punctulate; sternites 1 to 4 with a smooth, submarginal area, hind margins narrowly membranous; fifth sternite shallowly depressed medially, hind margin broadly, rather deeply, arcuately emarginate; sixth sternite short, much broader than long, lateral margins feebly arcuate; hind angles nearly square, hind margin truncate, notched at middle; fifth tergite with hind margin more or less broadly arcuate; sixth tergite broader (except at extreme base) and longer than sixth sternite, broader than long, disk feebly convex, lateral margins arcuate, hind angles narrowly rounded, hind margin broadly but shallowly, arcuately emarginate, ventral surface with a very distinct, broad, transverse, subapical, V-shaped carina. Length: 7.5 mm.

TYPE MATERIAL: Holotype male (the American Museum of Natural History) from Samalayuca, Chihuahua, Mexico, June 24, 1947 (M. A. Cazier). One male paratype from Pine Springs, Texas, July 12-16, 1928 (W. Benedict), in the University of Kansas collections.

BIOLOGY: No information available.

*Araeodontia marginalis* is characterized by having piceous stripes extending along the sutural and lateral margins of the elytra in a continuous manner. No other species of *Araeodontia* possess such a distinctive type of elytral markings.

No noteworthy structural or color variation has been observed in the type series. The paratype is considerably smaller than the holotype, however, measuring only 6 mm. in length.

### ***Araeodontia isabellae* (Wolcott), new combination**

Figures 4 and 7

*Cymatodera isabellae* WOLCOTT, 1910, Field Mus. Nat. Hist., zool. ser., vol. 7, no. 10, p. 345. WICKHAM AND WOLCOTT, 1912, Univ. Iowa Bull. Lab. Nat. Hist., vol. 6, no. 3, p. 52. WOLCOTT, 1921, Proc. U. S. Natl. Mus., vol. 59, p. 285. BARR, 1950, Proc. California Acad. Sci., ser. 4, vol. 24, no. 12, p. 496.

MALE: Medium sized, slender, pale testaceous; head and antennae dark testaceous; elytra with narrow, elongate, subapical dark spots along sutural and lateral margins, lateral spots more or less submarginal. Head finely, usually densely punctured, sparsely clothed with moderately short, erect, stiff hairs and

densely but inconspicuously clothed with very short, subrecumbent hairs all of which are pale in color; front feebly bi-impressed; eyes with distance between them about one and one-fifth times the length of last antennal segment; antenna slender, extending to near middle of elytra, ratio of lengths of segments 1 to 11,

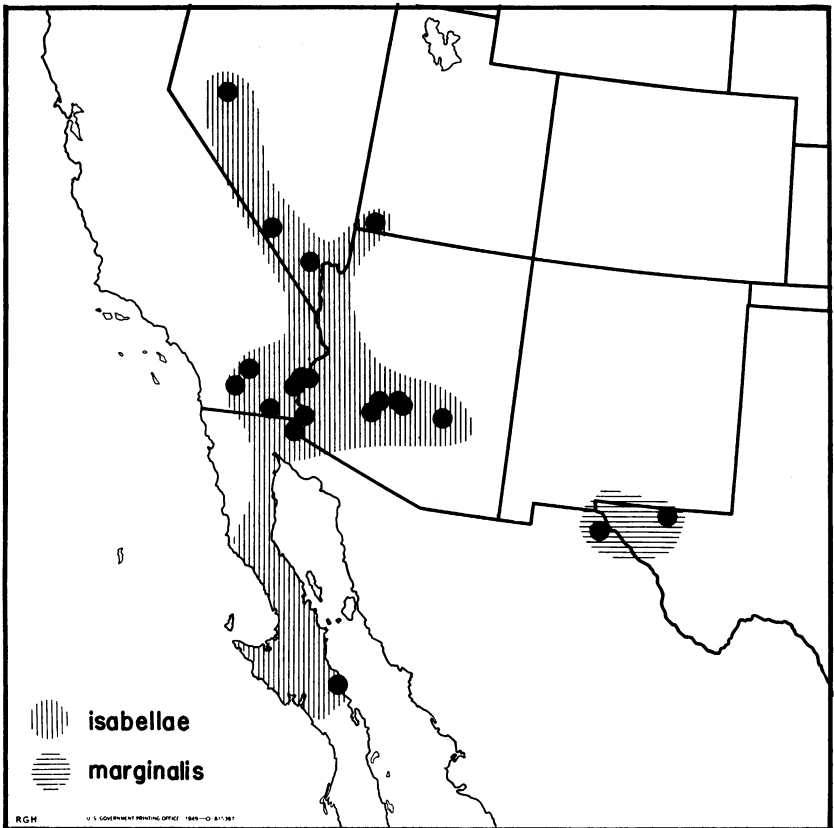


FIG. 4. Distribution of *Araeodontia isabellae* (Wolcott) and *A. marginalis* Barr.

12:6:8:13:13:13:12:12:12:12:20, last segment elongate, feebly aciculate, pointed at apex; maxillary palpus with last segment short, broadest at apex, apical margin broadly rounded. Prothorax finely, sparsely punctured, very faintly rugose along sides and at base, sparsely clothed with moderately short, erect, stiff hairs and densely but inconspicuously clothed with very short,

subrecumbent, fine pale hairs; pronotum broader along front margin than hind margin (44:35), broadest at middle, about one and one-fourth times longer than width at middle (55:45); sides weakly constricted in front of middle, strongly constricted behind middle; disk convex, broadly but feebly, transversely impressed in front of middle; antescutellar impression very faintly indicated. Scutellum flattened, transverse; disk sparsely but distinctly punctured; hind margin broadly rounded, notched at middle. Elytra sparsely clothed with moderately short, erect and suberect, pale, stiff hairs and more densely clothed with very short, subrecumbent, fine pale hairs; length along suture nearly two and one-half times the width behind humeri (159:65); postscutellar impression wanting; humeri distinct; sides parallel; apices broadly rounded, sutural angles feebly rounded; disk convex, striae extending to about apical fourth, strial punctures round, small, interstrial spaces at middle, much broader than width of strial punctures, nearly smooth. Mesosternum finely and sparsely, shallowly punctured. Metasternum convex, with a longitudinal impression in front of hind margin at middle, very finely and sparsely punctured, very finely, transversely rugose; midline interrupted before front margin. Legs finely, densely punctured, densely clothed with very short to moderately short, erect and suberect, pale hairs; tarsal claws with teeth very slender and long. Abdomen finely, densely punctured, sternites 1 and 2 more sparsely punctured; sternites 1 to 4 with an indistinct, submarginal, smooth area, hind margins rather broadly membranous; fifth sternite with hind margin broadly, deeply, semicircularly emarginate; sixth sternite with lateral margins strongly oblique, arcuate, hind margin broadly rounded, incised and impressed at middle; fifth tergite with hind margin subtruncate, notched at sides; sixth tergite broader (except at extreme base) and longer than sixth sternite, lateral margins obliquely arcuate, hind angles broadly rounded, hind margin very broadly rounded, feebly notched at middle, ventral surface with a strongly indicated, transverse, V-shaped, subapical carina. Length: 5.7 mm. to 7.3 mm.

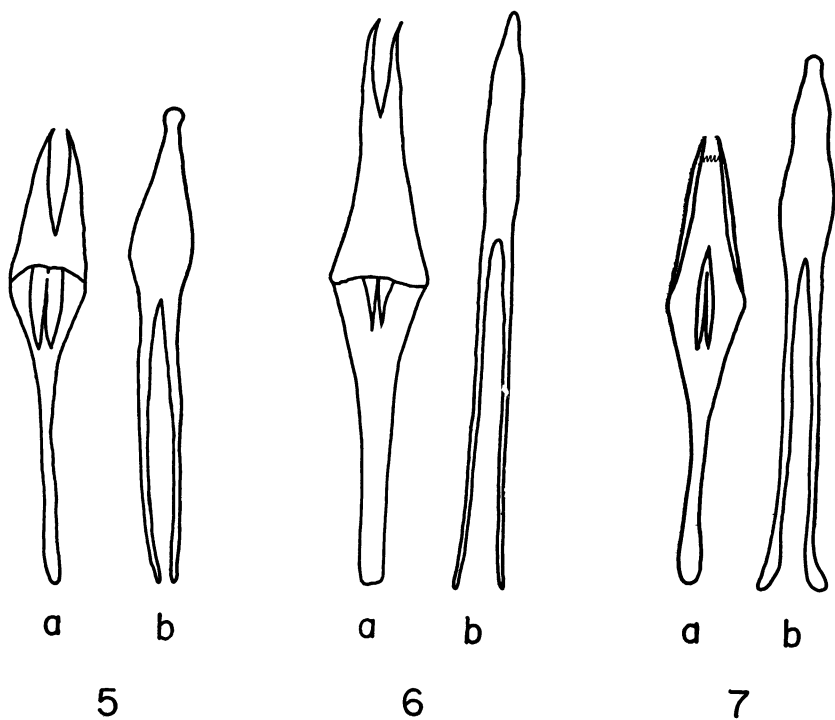
FEMALE: Distance between eyes about one and one-half times the length of last antennal segment. Ratio of lengths of antennal segments 1 to 11, 11:6:8:11:11:10:10:9:9:9:17. Abdomen with hind margin of fifth sternite broadly, deeply, more or less triangularly emarginate; sixth sternite convex, hind margin semi-

circularly rounded; fifth tergite with hind margin truncate; sixth tergite with disk impressed, flattened, hind margin elevated, more or less semicircularly rounded, feebly acute at apex, ventral surface not carinate. Length: 6.1 mm. to 9.7 mm.

TYPE LOCALITY: St. George, Utah.

LOCATION OF TYPE: United States National Museum.

GEOGRAPHICAL RANGE: Southern Utah and southern Nevada through western Arizona and southeastern California to northern Lower California.



FIGS. 5-7. Male genitalia of three species of *Araeodontia* (a, lateral lobes; b, median lobe). 5. *A. peninsularis* (Schaeffer). 6. *A. marginalis* Barr. 7. *A. isabellae* (Wolcott).

MATERIAL EXAMINED: *Arizona*: Ehrenberg, Yuma County, August 16 (F. H. Parker); Globe, August 22, 1932 (D. K. Duncan); Laguna Dam, Yuma County, 1000 feet, August 10, 1948 (F. Werner and W. Nutting); Palo Verde, July 4, 1933; Phoenix,



August 23, 1932 (D. K. Duncan) and August 31, 1935 (F. H. Parker); Pinal Mountains; San Luis, Yuma County, June 15, 1940 (K. S. Hagen). *California*: Blythe, Riverside County, August 3, 1946 (P. D. Hurd); Borego Valley, San Diego County, June 6 and 7, 1940; Palo Verde, Imperial County, August 17, 1946 (W. F. Barr and P. D. Hurd); Ripley, Riverside County, July 26, 1946 (W. F. Barr and P. D. Hurd); Vallecito, San Diego County, September 15 and 16, 1945 (L. Martin, J. A. Comstock), and September 26, 1936 (L. J. Muchmore and J. A. Comstock). *Nevada*: Ash Meadows, Nye County, August 14–19, 1921 (Nininger and Hoover); Las Vegas, 2026 feet, September 2, 1909; Sand Spring, July 5, 1941 (I. La Rivers). *Utah*: St. George, July (Wickham) and June 8 (G. F. Knowlton).

**BIOLOGY:** Adults are commonly taken at lights.

This species has been recorded previously from Arizona, Utah, and Lower California.

*Araeodontia isabellae* can be easily recognized by being pale testaceous in color and by having elongate, sutural, and marginal dark spots near the apices of the elytra. In the great majority of specimens the pronotum is nearly smooth; however, in some specimens it is distinctly but finely punctured. The dark subapical markings of the elytra are often reduced to the extent that they are very faintly indicated. This occurs most frequently in the smaller specimens.

In many collections *A. isabellae* occurs under the name *Cymatodera tuta* Wolcott as a result of misidentification.

#### SELECTED BIBLIOGRAPHY

BARR, WILLIAM F.

1950. Contributions toward a knowledge of the insect fauna of Lower California, Coleoptera: Cleridae. *Proc. California Acad. Sci.*, ser. 4, vol. 24, no. 12, pp. 485–519.

SCHENKLING, SIGMUND

1903. Coleoptera, Malacodermata, family Cleridae. In Wytsman, P. (publ.), *Genera insectorum*. Brussels, fasc. 13, pp. 1–124, pls. 1–5.

SPIETH, HERMAN T.

1950. The David Rockefeller Mexican expedition of the American Museum of Natural History, introductory account. *Amer. Mus. Novitates*, no. 1454, pp. 1–67.

WOLCOTT, ALBERT B.

1921. North American predaceous beetles of the tribe Tillini in the United States National Museum. *Proc. U. S. Natl. Mus.*, vol. 59, pp. 269–290, pl. 43.

