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# THE TRIBE ONCIDERINI

(*Coleoptera: Cerambycidae*)

## Part II

BY

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## LOCHMAEOCLES Bates

*Oncideres* subg. *Lochmaeocles* Bates, Biol. Centr.-Amer., Col., v, 1880, p. 124.

*Lochmaeocles* Bates. Casey, Mem. Col., iv, 1913, p. 350.

*Oncideres* subg. *Lochmaeodes* Aurivillius, Cat. Col. pars 74, 1923, p. 345.

This very variable genus is an extremely difficult one. Some of the species recognized by the authors may eventually prove to be races; others passed over here as varieties may, when more material is available, have to be raised to full specific status. Frontal horns, in the males, cannot be employed in separating species; their size, position, and often their shape is more closely correlated to the size of the specimen and to other still unknown factors than to specific distinctions.

Moderate to large-sized beetles, elongate-ovate, robust, subcylindrical; body reddish-brown to black, more or less pubescent, elytra marked with rounded maculae, which range in color from pale yellow to ochraceous, and often with fasciae of white, varying greatly in distinctness, sometimes reduced to a mere trace. Head with front oblong, vertical in both sexes, concave between antennal tubercles; eye with lower lobe elongate, oblong, or oblong-ovate; antennal tubercles prominent, in male terminating internally in long horns directed forwards, in female produced feebly forward (the length of the horn cannot be considered a specific character). Antennae in male from one and one-half to two times length of body, in female, about one and one-half times body length or at least longer than body; scape robust, in male more so, clavate; third segment straight elongate, cylindrical; rest of segments gradually shorter; eleventh in male elongate, acicular. Pronotum very transverse, distinctly wider at base than apex, or equal in width; laterally at basal third armed with a conical tubercle; disk with an apical and a basal transverse sulcus. Scutellum transverse. Elytra robust, more or less attenuate apically; apices together rounded; basal gibbosity feeble, extreme base smooth, thence granulate-punctate on basal third or fourth, usually followed by punctures; humeri on external angle with a prominent tubercle. Prosternum either simple, as in *stadeni* and *callidryas*, or with a transverse process between the procoxae, as in *cornuticeps*; this process varies greatly within the species in its exact form, from a cariniform elevation to a bilobed process or a feeble carina. Procoxae tumid, in the male with an obtuse or conical tubercle before. Legs moderate size, longer than in *Oncideres*, metafemora usually attaining the apex of the third abdominal sternite; femora robust, clavate, profemora in some males nearly parallel-sided, with transverse rugosities on posterior face; tarsi slightly shorter than tibiae.

GENOTYPE: *Oncideres callidryas* Bates, by original designation.

## KEY TO SPECIES

1. Prosternum with a more or less conspicuous, transverse process between the procoxae .....2  
 Prosternum without any carina or process .....7
2. Pronotum with a number of fine, transverse rugosities on apical half and a few basally; elytral maculae distinct, deep rufous-ochraceous, median fascia entirely lateral, triangular .....*alboplagiatus* (p. 193)  
 Pronotum not at all transversely rugose; elytral maculae not sharply defined, usually yellowish, median fascia oblique, extending to middle of disk, often indistinct .....3
3. Pronotum without distinct maculae; elytral maculae pale ochre-yellow, irregular in size and shape .....*batesi* (p. 192)  
 Pronotum with distinct maculae; elytral maculae deeper (ochraceous to rufous-ochraceous), rounded or linear, often uniform in shape .....4
4. Pronotum ashy pubescent; elytra with more or less linear, tawny-ochraceous maculae and scattered white patches, fascia broad, indistinctly delimited, punctuation coarse, not closely placed .....*sparsus* (p. 195)  
 Pronotum largely grayish-brown pubescent; elytra with small, rounded evenly spaced, ochraceous to rufous-ochraceous maculae, fascia oblique, rather narrow, usually distinctly delimited posteriorly, punctures finer and dense  
*cornuticeps*-5
5. Elytral fascia distinctly oblong, although oblique, its anterior and posterior sides parallel, its anterior internal angle extending well beyond middle of disk; body form more slender; Pacific coast region of Mexico  
*cornuticeps pacificus* (p. 198)  
 Elytral fascia often indistinct, not distinctly oblong or parallel-sided; body form more robust .....6
6. Elytra with basal pubescence dark brown, median fascia distinct, broad; body form a little more slender; near Federal District, Mexico  
*cornuticeps federalis* (p. 197)  
 Elytra with pubescence uniformly grayish or grayish-brown; median fascia indistinct, especially anteriorly; body robust; Brownsville, Texas and north-eastern Mexico .....*cornuticeps cornuticeps* (p. 196)
7. Elytral fascia densely white, very solid, not interrupted, nearly transverse; elytra maculate with maize or Naples yellow, maculae uniformly distributed, each encircled with white, spaces between maculae largely glabrous, especially apically .....*fasciatus* (p. 199)  
 Elytral fascia, when present, oblique .....8
8. Body beneath with hoary pubescence, without colored maculae  
*callidryas* (p. 201)  
 Body beneath with colored maculae or not hoary gray .....9
9. Elytral fascia broad, broader than one third length of elytron, extending to suture, including distinct white maculae .....*laticinctus* (p. 200)  
 Elytra without a broad fascia .....10
10. Head and pronotum thinly pale yellowish pubescent, the latter with a narrow median transverse yellow line; elytra with numerous minute, pale yellow maculae, only a few larger and these feebly so, most maculae vermiculate, none rounded, median fascia lacking; humeri rectangular, not rounded.  
*vermiculatus* (p. 216)

- Head and pronotum not uniformly pale yellowish, the latter without a transverse median yellow line; elytra always with distinctly larger maculae, maculae not vermiculate, fascia often present; humeri at least slightly rounded .....11
11. Elytra, except at extreme base, with anterior third dark brown (nearly fuscous) pubescent .....12  
Elytra not dark brown pubescent on basal third, at most grayish-brown....13
12. Elytra with basal third nearly devoid of maculae, those present very small, median fascia whitish, consisting of more or less confluent maculae, apical part of disk with ochre-yellow maculae, larger ones few, irregular, minute ones very numerous, vermiculate .....*basalis* (p. 212)  
Elytra with a number of distinct, small maculae, median fascia consisting of maculae more closely set than on rest of disk but similar in color, size and shape, apical half of disk with primrose to buff-yellow maculae, larger ones more numerous, smaller ones not vermiculate, fewer in number  
*pulcher* (p. 211)
13. Elytra with entire basal half (except extreme base) very densely, finely and uniformly granulate-punctate, minutely and conspersely maculate with whitish, a few (about 20 to 30 on each elytron) larger, widely separated, irregular in shape, median fascia oblique, very distinct....*obliquatus* (p. 215)  
Elytra with only basal third granulate-punctate and never uniformly and minutely so, and otherwise maculate .....14
14. Elytra glabrous between the maculae .....15  
Elytra pubescent between the maculae .....16
15. Pronotum with at least five or more distinct, transverse rugosities, elytra conspersae with minute maculae, the larger ones widely separated, median fascia usually absent, when present indistinct, punctuation on apical half obsolete  
*sladeni* (p. 210)  
Pronotum with at most one or two transverse rugosities; elytra with only a few minute maculae, larger ones numerous, often confluent or contiguous, median white fascia usually present, although interrupted, punctuation coarse and deep to apex .....*zonatus* (p. 214)
16. No brown pubescence on head, pronotum, and elytra, mostly hoary gray above .....17  
With some brownish pubescence on upper surface, pubescence often variegated .....18
17. Densely hoary gray pubescent, maculate with orange-ochraceous; median fascia usually distinct .....*marmoratus* (p. 208)  
Thinly gray pubescent, maculate with chrome-yellow; median fascia very indistinct .....*vestitus* (p. 207)
18. Pronotal disk without trace of rugosities; elytra rather densely pubescent, along suture with a broad, longitudinal area of hoary ...*hondurensis* (p. 204)  
Pronotum transversely rugose .....19
19. Elytral granulation less fine, irregularly placed, maculae larger, irregularly shaped, often contiguous or confluent, especially apically; maculae, if at all, only narrowly outlined with whitish .....*tessellatus* (p. 202)  
Elytral granulation very fine, uniformly placed, maculae smaller, rounded, well-spaced, all broadly outlined with whitish .....*consobrinus* (p. 205)



**Lochmaeocles batesi** Aurivillius

PLATE VIII, FIGURE 1.

*Oncideres* (*Lochmaeocles*) *callidryas* var., Bates, Biol. Centr.-Amer., Col., v, 1880, p. 124.

*Oncideres* (*Lochmaeodes*) *callidryas* *Batesi* Auriv., Cat. Col., pars 74, 1923, p. 345.

In general coloration, *batesi* resembles *callidryas* rather closely, but the elytral colored maculae are less distinct, and the pronotum is not uniformly hoary; the greatest difference, however, is in the processed prosternum.

MALE. Elongate-ovate, robust, subcylindrical, elytra subconvex; head and pronotum dark brown to fuscous, elytra reddish-brown. Head with ochre-yellow, eyes margined with ochre-yellow, and an indistinct, very narrow vitta of same either side of median glabrous line on front from antennal tubercles to epistoma. Pronotum ochre-yellow and gray with usually three glabrous maculae, one rounded at middle and one transverse either side. Scutellum and extreme base of elytra ochre-yellow intermixed with gray, remainder of elytra with fine, short, brownish pubescence intermixed with pale yellow and with many ochre-yellow maculae from minute to moderate size scattered over entire surface, more numerous apically and minute ones tending to be confluent, or vermiculate, at middle a wide, whitish, oblique band not attaining suture, edges irregular and with a few, glabrous, rounded punctures interspersed here and there. Beneath dark reddish-brown, clothed rather densely with grayish pubescence. Antennae with basal segment dark brown to piceous, thence reddish-brown, entirely clothed with pale grayish-yellow, from fourth segment slightly darker on apical half. Legs reddish-brown to piceous, hoary-gray pubescent, variegated with brownish.

Head minutely alutaceous, with scattered, shallow, coarse punctures; front finely, densely punctate, with scattered coarse punctures, sometimes rugose either side of middle; eye with lower lobe about one and one-half times height of gena; genal stripe nearly glabrous, rugosely punctate; antennal tubercles moderate with rather long, acute horns. Pronotum with sides feebly rounded, constricted apically, lateral tubercles moderate, with a very short obtuse spine; apical sulcus rather deep; disk with three feeble tubercles, one at middle round, one either side of middle transverse, base of disk and lateral tubercles with few punctate granules. Scutellum transverse, sides feebly arcuate, oblique, apex subtruncate. Elytra with sides nearly straight, oblique to apical quarter from where they are rounded to apices, which are broadly rounded; extreme base smooth, thence to basal quarter finely, rather densely granulate-punctate, then punctate to apex, punctures more feeble apically; humeri rounded, with tubercle at posterior angle. Prosternum with a transverse process between procoxae, which are tumid and with an obtuse tubercle; fifth sternite about one and one-half times length of fourth, subtruncate at apex. Profemora clavate from middle to apex, basal half transversely rugose beneath; meso- and metafemora clavate from middle to apex. Antennae from one and two-thirds to two times body length; scape rather abruptly clubbed from middle to apex, and basally on inner side with a few, deep, transverse rugosities.

FEMALE. Elytra slightly wider behind basal third; head very concave between antennal tubercles which are slightly produced, unarmed; prosternal process sometimes very feeble or very strong and almost carinate on apical edge, sometimes more or less bilobed; femora clavate from middle to apex; antennae slightly longer than body, scape clubbed from middle to apex, base with one or two very small, transverse rugosities.

LENGTH 16-28 mm.; width 6.5-10.5 mm.

*Type locality*.—Chontales, Nicaragua.

*Distribution*.—Central America into Northwestern South America.

ECUADOR: 2 ♂, ♀; no locality; [A.M.N.H.]. 6 ♂, ♀; Playas do Montalvo, Prov.

Los Rios, 15 m., March 14-Apr. 5, 1938; (W. C. McIntyre); [L. Lacey].

COLOMBIA: 3 ♀; no locality; [C.M.].

PANAMA: ♀; Chiriqui; [A.N.S.P.].

COSTA RICA: ♀; no locality, Dec. 31, 1923; (Nevermann); [U.S.N.M.].

GUATEMALA: ♀; Mocá Guatalón 1,000 m., Mar-Apr. 1931; (J. Bequaert);

[M.C.Z.]. 2 ♂, 2 ♀; Alta Verapaz, October, 1934; (F. A. Muenchmazar);

[L. Lacey].

NICARAGUA: ♀; Eden, 14°-0' N, 84°-26' W.; June-September, 1922 (J. S. McKenzie); [A.N.S.P.].

NO LOCALITY DATA: ♂; [M.C.Z.].

*Variations*.—The specimen from Nicaragua was used as "type" of locality because of the variations within the species. The ones from Ecuador and Colombia have a much more broken, less distinct, oblique band at middle, and the pubescence on pronotum, scutellum and base of elytra is somewhat less yellowish. The specimen from Panama is ashy-gray on pronotum, scutellum, and base of elytra; the specimens from Costa Rica and Guatemala usually have brighter ochre-yellow maculae on elytra, which are more sparse on base.

### ***Lochmaecles alboplagiatus* Dillon and Dillon, spec. nov.**

PLATE VIII, FIGURE 2.

Closest in appearance to *L. consobrinus*, from which it is readily distinguished by the processed prosternum. From *L. cornuticeps* it differs in its much larger size; the reddish color of the elytral maculae; antennae reddish above; scutellum with sides distinctly rounded; antennae in female (male unknown) just as long as body; and elytral fascia confined to sides, granules extending to basal third.

FEMALE. Elongate-ovate, robust, subcylindrical, elytra convex; fuscous to piceous, rather densely covered with variegated gray pubescence, essentially pale

gray, with brown and ochraceous-rufous intermixed. Head with the ochraceous-rufous predominating; eye interruptedly margined behind with ochraceous-rufous and front finely bordered laterally by a line of the same color, which also predominates on the antennal tubercles; genal stripe rather uniformly, but thinly, pubescent. Prothorax entirely covered, the gray more distinct basally; a short glabrous line at middle of each side and a few glabrous punctate-granules towards base; near each basal angle is an indistinct, small, ochraceous-rufous macula. Scutellum entirely pubescent. Elytra at extreme base gray, followed by the variegated pubescence, which is more grayish apically from middle; ochraceous-rufous pubescence forming very irregular maculae, placed over entire surface, of which between forty and fifty on each elytron are larger, rest minute; laterally, beginning at basal quarter or third and extending behind middle, a broad, irregular, triangular, white patch, the apex of which points towards the suture but attains only the center of each elytron. Body beneath dark reddish-brown, covered densely with pubescence, variegated as above, but with very little brown, the ochraceous-rufous somewhat concentrated on metepisterna and forming an indistinct oblique line on each side of metasternum; sternites apically, except fifth, broadly margined with orange, laterally without trace of glabrous maculae. Antennae with proximal segments black, distally paling to fuscous; from scape to basal half of fourth segment orange pubescent, thence becoming gray. Legs fuscous, rather densely covered with variegated pubescence, internally more gray, above and externally orange.

Head above minutely, densely alutaceous; front minutely, densely alutaceous and finely punctate, a number of coarse punctures interspersed; eye elongate-oblong, basal margin rounded, about one and one-third times as high as gena; gena finely, densely punctate, an oblique patch of coarser punctures at middle. Pronotum twice as wide as long, sides straight, widening towards apex, where they are gradually constricted; disk with a distinct tubercle at middle, apically with several transverse carinae, which are more distinct at middle, at base and apex with a broad, transverse sulcus, the apical one more pronounced, on each side of middle basally with five to seven punctate-granules; lateral tubercles prominent, conical. Scutellum slightly transverse, sides broadly rounded to apex, which is emarginately truncate. Elytra with sides nearly parallel from behind humerus to apical quarter, then arcuately attenuate to apices; extreme base narrowly smooth, thence finely, rather sparsely granulate-punctate, granules more concentrated on tumid portions and behind humeri, evanescent to basal third, followed to apex by fine, uniformly spaced punctures, nearly concealed by the pubescence; humeri glabrous on basal margin, angle obliquely truncate, behind angle a small glabrous tubercle. Prosternum transversely carinate between coxae, carina interrupted at middle; procoxae tumid internally before; femora robust, clavate, profemora less robust, not transversely rugose; fifth sternite nearly twice as long as fourth, emarginate at apex, without any visible medial impression. Antennae very briefly longer than body, distinctly fringed beneath to sixth; scape gradually clavate, without visible rugosities.

LENGTH 24 mm.; width 9 mm.

*Holotype*.—Female; Trinidad, August, 1922 [L. Lacey].

**Lochmaeocles sparsus** Bates

PLATE VIII, FIGURE 6.

*Oncideres (Lochmaeocles) sparsa* Bates, Biol. Centr.-Amer., Col. v, 1880, p. 125.*Oncideres callidryas*, male var. Bates, *ibid.*, pl. ix, fig. 10.

The small body size, the processed prosternum, and the sparse, very distinct, glabrous punctures distributed over the entire elytron serve to distinguish this species.

**FEMALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; dark brown or fuscous. Head covered with tawny-ochraceous pubescence, sometimes with a few grayish hairs intermingled; eyes outlined with denser tawny-ochraceous pubescence, and continuing posteriorly and anteriorly either side of genal glabrous stripe to base of front. Pronotum gray pubescent, either with indistinct maculae of tawny-ochraceous or intermixed with hairs of same color. Scutellum tawny-ochraceous, with broad, grayish band either side. Elytra at very base gray, then with small maculae and streaks over entire surface of tawny-ochraceous, these partially outlined with grayish pubescence, at middle, usually with a broken, indistinct, rather wide oblique band. Beneath dark reddish-brown, clothed with gray pubescence, sterna frequently with tawny-ochraceous touches; sides of sternites with a very indistinct, pale tawny-ochraceous vitta, two small, oblique, glabrous spaces on each side of sternites. Antennae with basal two segments and basal half of the third segment piceous, remainder of segments dark reddish-brown; scape and sometimes basal half of third clothed with pale fulvous, remaining segments gray pubescent. Legs fuscous or dark reddish-brown, clothed with gray pubescence; metacoxae fulvous; femora with dorsal side somewhat fulvous.

Head with front coarsely rugose; eye with lower lobe oblong-ovate, distinctly longer than gena; antennal tubercles produced very shortly and bluntly. Pronotum with sides gradually sloping from base to near apex where it is constricted; basal and apical sulcus shallow; lateral tubercles robust, obtuse; middle of disk with a feeble, flattish, median tubercle and slightly apical to this a transverse tumescence either side; base of disk and lateral tubercles with a few small setigerous punctate granules. Scutellum transverse; sides and apex broadly rounded. Elytra with sides very slightly arcuate, apices rounded together; humeri rounded, with a distinct tubercle, just behind which it is rugose; very base smooth, then very sparsely granulate-punctate to about basal fifth, thence sparsely, coarsely, and deeply punctate, somewhat less deep apically. Procoxae globose, tumid anteriorly; femora clavate, profemora more robust, not rugose basally. Fifth sternite about one and one-half times the length of the fourth, subtruncate apically, with a rather deep, triangular impression, in the center of which is a glabrous line to base.

LENGTH 16-19 mm.; width 5.5-7 mm.

*Type locality.*—Toxpan, Mexico, and Chontales, Nicaragua.*Distribution.*—Mexico to Costa Rica.

COSTA RICA: ♀; Hamburg Farm, Reventazon, July 15, 1935; (Ebene Limon); [U.S.N.M.]. ♀; Parismina, July 1926; (T. Vaglia); [U.S.N.M.]. ♀; Guapiles, 850 ft.; [U.S.N.M.].

**Lochmaeocles cornuticeps cornuticeps** Schaeffer

PLATE VIII, FIGURE 3.

*Oncideres* (*Lochmaeocles*) *cornuticeps* Schaeffer, Can. Ent., xxxviii, 1906, p. 20  
*Lochmaeocles tessellatus* Knull [non Thomson], Ent. News, xlvi, 1937, p. 42.

*Cornuticeps* resembles *L. sparsa* in the short, robust form of the body but in general maculation is closer to *L. albipagiatus*.

MALE. Elongate-ovate, robust, subcylindrical, elytra subconvex; fuscous to black, entirely densely covered with variegated silvery-gray and grayish-brown pubescence. Head with front laterally and eyes entirely, margined with pubescence that varies from whitish through yellow to bright red in different individuals, between antennal tubercles a streak of color each side; genae rather densely pubescent. Prothorax with small, scattered maculae of whitish, yellow, or red on disk, usually confined to tuberculate area. Scutellum silvery, yellowish or reddish maculate laterally; median line glabrous. Elytra at extreme base more or less hoary-white, tinged with yellowish, thence with rounded, rather indistinct, ochraceous, rufous-ochraceous, or red maculae, fairly well spaced on basal half, denser apically, these posterior ones indistinctly margined with white; at middle with a broken, oblique, white fascia, varying greatly in extent, usually not reaching beyond middle of each disk and often confined to extreme sides, its anterior margin irregular, the posterior accentuated with brown. Beneath dark brown or fuscous, densely pubescent with silvery-gray and grayish-brown, often variegated with orange or red, especially on abdomen; meso- and metasternal side-pieces as well as metasternum laterally vittate and maculate with pale orange or red. Legs dark reddish-brown, grayish pubescent; femora above occasionally reddish or orangish. Antennae piceous, gray pubescent; proximal segments and apices of others indistinctly maculate or variegate with yellowish or reddish.

Head finely, densely punctate above; front minutely, densely alutaceous and finely punctate, a number of coarse punctures intermingled, especially at center; eye with lower lobe elongate, more or less triangular, about one and one-half times height of gena; antennal tubercles prominent, horns usually directed forwards and inwards, but sometimes they are parallel. Pronotum at least twice as wide as long, sides slightly widened to apex, where they are strongly constricted; with a distinct, sinuate, apical transverse sulcus and a feeble basal one; disk with from five to seven tubercles, one at center and two or three each side, punctate basally and on base of lateral tubercles; lateral tubercles robust, conical, prominent. Scutellum transverse, sides nearly straight, oblique, apex broad, emarginate-truncate. Elytra with sides broadly arcuate, only feebly attenuate, apices together rounded (or each feebly rounded); extreme base smooth, thence narrowly, finely, and sparsely granulate-punctate, these often followed by coarse, glabrous punctures, from at least basal quarter to apex with fine punctures which are covered by the pubescence; humeri more or less tumid along basal margin, broadly rounded, at posterior angle a small, rounded, projecting, glabrous tubercle. Prosternum with a transverse, elevated process between coxae; procoxae tumid, with an obtuse, conical tubercle before; femora clavate, profemora feebly, transversely rugose near base beneath. Fifth sternite one and one-half times length of fourth,

broadly truncate at apex. Antennae one and one-half to two times length of body; scape robust, slightly clavate, transversely grooved or rugose internally at base.

**FEMALE.** Slightly more robust; antennal tubercles not horned but prominent; procoxae not armed, but tumid before; profemora not rugose at base; fifth sternite nearly twice length of fourth, emarginate at apex, with a feeble linear impression medially.

**LENGTH:** 16.5-20 mm.; width 6.5-8.5 mm.

**Type.**—In the Lionel Lacey collection. This specimen, which is from the Schaeffer collection originally, is the only one seen that fits the original description exactly, the type being of a peculiar coloration. As it bore no type label, the authors have placed one upon it.

**Type locality.**—Texas.

**Distribution.**—Known only from Brownsville, Texas, and from Tampico, Mexico.

**TEXAS:** 7 ♂, 6 ♀; Brownsville, various dates in May and June; (J. N. Knull; E. G. Linsley; ●. Schwab and M. Cazier); [C.M.; U.S.N.M.; L.L.; Ohio St. U.; C.A.S.; A.M.N.II.].

**MEXICO:** 2 ♂, 2 ♀; Tampico; bred from *Acacia sphaerocephala*; (E. A. Schwartz); [U.S.N.M.].

**Habits.**—Under the name *tessellatus* (an examination of his material shows it to be this present species), Knull describes the food and larval habits as follows: "This species breeds in dead trunks and branches of hackberry (*Celtis*) and *Acacia felicioides* Carr. at Brownsville, Texas. The larvae work beneath the bark and frequently enter the sapwood for pupation. The pupal cells are very roughly constructed and when the loose bark is removed most of the cells are exposed. The adults mature the latter part of May."

### ***Lochmaeocles cornuticeps federalis***

Dillon and Dillon, subspec. nov.

PLATE VIII, FIGURE 4.

Intermediate between the typical form and *O. cornuticeps pacificus* in regards to robustness of body; differs from both in having the general pubescence on elytra dark brown instead of gray or brownish-gray.

**MALE.** Moderately robust; dark brown to piceous. Head above brown pubescent, more or less broadly hoary-gray around occiput; eye posteriorly, and front laterally, margined with orange, the front orange and brown pubescent; gena entirely, sparsely pubescent; vertex with two arcuate, orange vittae. Pronotum

more or less hoary gray pubescent, sometimes with an indistinct brown macula each side of middle of disk, with scattered, distinct, deep tawny-ochraceous maculae. Elytra at extreme base hoary-gray, before granules distinctly margined with deep tawny or ochraceous thence to apex covered with brown pubescence, and with many deep tawny or ochraceous maculae, irregular in size and shape, more densely placed apically; at middle a distinct, oblique fascia of white, not as regular in shape as in *pacificus*, more visible than in the nymotypic form, with numerous glabrous punctures; basal half of disk in male with coarse, distinct, nearly glabrous punctures, especially near suture. Beneath hoary-gray pubescent, much suffused and maculate with orange.

LENGTH 16-20 mm.; width 6.7-7.5 mm.

*Holotype*.—Male; Cuernavaca, Mexico, May 15, 1935; [U.S.N.M. no. 57207].

*Allotype*.—Female; Temascaltepec, D. F., Mexico (B. Hinton); [E. G. Linsley coll., Cal. Ac. Sci.].

### ***Lochmaeocles cornuticeps pacificus***

Dillon and Dillon, subspec. nov.

PLATE VIII, FIGURE 5.

Similar to typical *O. cornuticeps* but differs in the following manner:

Form distinctly more slender, in male more attenuate; pubescence nearly uniformly gray or brownish-gray. Head with frontal and ocular margins constantly ochraceous-buff to ochraceous. Pronotal and elytral maculae also ochraceous-buff to ochraceous. Elytra with the median white fascia solid, unbroken except by punctures, its anterior and posterior margins nearly parallel, the whole oblong but oblique, its internal anterior angle extending well beyond middle of each disk. Beneath the maculae are pale orange.

Pronotum in male not twice as wide as long, but transverse; discal tubercles less distinct. Elytra almost entirely devoid of granules; humeri less broadly arcuate.

LENGTH 12.5-19 mm.; width 4-6.5 mm.

*Holotype*.—Male; Venedio, Sinaloa, Mexico, July 23, 1918; (Kusche); [U.S.N.M. no. 57208].

*Allotype*.—Female; Venedio, Sinaloa, Mexico, July 7, 1918; (Van Dyke coll.); [C.A.S.].

*Paratypes*.—Male; Escuinapa, Sinaloa, Mexico; (J. H. Beatty); [A.M.N.H.]. 11 males, 5 females; topotypic, July 29 to August 10, 1918; [U.S.N.M.]. Male; topotypic, July 17, 1918; [C.A.S.]. Female; vic. Compostela, Nayarit, Mexico, April 20, 1934; [authors' coll. through courtesy of Ward's Nat. Sci. Est.].

**Lochmaeocles fasciatus** Lucas

PLATE VIII, FIGURE 7.

*Oncideres fasciatus* Lucas, in Castelnau, Animaux nouv. ou rares du L'Amer. Sud, 1857, p. 189.

*Apocoptoma fasciatus* Lucas, *ibid.*, pl. 13, f. 1.

Beginning with the present form, the prosternum is without a transverse process. *Fasciatus* is distinguished from all other known species of the genus by the elytral fascia being entirely dense white and uninterrupted by punctures. The only one that approaches it in this respect is *obliquatus*, which has a number of punctures on the fascia towards its sutural end and an entirely different elytral maculation.

MALE. Elongate-ovate, robust, subcylindrical; elytra subconvex; head and pronotum fuscous, elytra dark reddish-brown to fuscous. Head and pronotum clothed with light gray pubescence; eye rather broadly margined before and behind with maize, the lines continuing along edge of glabrous space of gena; between antennal tubercles a patch of same color; pronotum at base usually with a distinct line of maize which is brighter medially, the yellow coloring often diffused over most of surface. Scutellum gray pubescent. Elytra rather densely and uniformly covered with irregular maculae of maize, finely margined with white, thirty to forty larger ones on each elytron and numerous minute ones, a transverse, very slightly oblique, unbroken band of white, from lateral edge almost to suture, edges irregular and outlined with yellowish. Beneath dark brown or fuscous, densely clothed with whitish pubescence, a few indistinct, gray-yellow vittae or maculae on sterna, often wanting; sometimes sternites apically margined with gray-orange. Antennae with two basal segments black, remaining segments reddish-brown, entirely covered with thin light gray pubescence, more dense on scape. Legs dark brown or fuscous, rather densely covered with gray pubescence, usually femora and tibiae with patches of gray-orange.

Head with front having a few coarse scattered punctures, and slightly wider at base of eye but not constricted at epistoma; antennal tubercles at apex produced into robust, acute spines which are from short to moderately short for the genus; eye slightly elongate, oval; slightly higher than gena; gena with glabrous space minutely alutaceous, narrower than lower edge of eye. Prothorax nearly twice as wide as long, sides gradually and feebly widened to before apex, then suddenly and strongly constricted; lateral tubercle robust but short, blunt; a distinct transverse sulcus at apex and one before base; disk with many fine, transverse rugosities and a few small, obsolete punctures at base and several distinct ones on base of tubercles. Scutellum transverse, sides oblique, arcuate, apex rounded. Elytra tapering from base to apices which are together rounded; extreme base narrowly smooth, thence moderately, finely granulate-punctate, granules confined to about basal sixth, thence moderately punctate to apex; humeri nearly right-angular, with a distinct tubercle which projects sideways and upwards. Prosternum simple. Procoxae internally tumid or feebly tuberculate; femora robust, clavate apically,



profemora transversely rugose at base. Fifth sternite transverse, slightly longer than fourth, broadly emarginate at apex. Antennae about twice body length, scape robust only slightly wider apically, at base obsoletely rugose on internal side; beneath distinctly fringed through fourth segment.

FEMALE. More robust and less attenuate posteriorly; antennae only slightly longer than body; scape distinctly narrower at base; fringed beneath to fifth or sixth segment; profemora without rugosities; fifth sternite much longer than fourth, broadly rounded at apex; vertex simple.

LENGTH 20-26.5 mm.; width 7.5-10.5 mm.

*Type locality*.—Interior Brazil.

*Distribution*.—Colombia and southern Brazil.

COLOMBIA: ♀; El Cantro, Barania, Bermija; (H. Munro); [L. Lacey].

BRAZIL: ♂, 2 ♀; no locality data; [M.C.Z.]. 2 ♂; Rio Grande de Sul; [A.N.S.P.—1; M.C.Z.—1]. 2 ♀; no locality; [A.N.S.P.]. 2 ♀; Santa Catharina; [A.N.S.P.—1; M.C.Z.—1]. ♀; Therezopolis, Santa Catharina; (Fruhstorfer); [A.N.S.P.]. ♂; Santarem; [C.M.]. ♀; Rio de Janeiro, December; [C.M.]. 3 ♂, 5 ♀; Hausa Humbolt, Santa Catharina, December-February; (A. Mal-ler); [L. Lacey]. ♀; Nova Friburgo; [M.C.Z.].

NO LOCALITY DATA: ♂; [M.C.Z.].

### ***Lochmaeocles laticinctus* Dillon and Dillon, spec. nov.**

PLATE VIII, FIGURE 8.

Resembles *L. callidryas* in many ways but is recognizable by the broad elytral fascia (extending at least one third the elytral length) which extends entirely across disk; the colored maculae on body beneath serve to distinguish it further from the other form.

MALE. Elongate-ovate, robust, subcylindrical, elytra subconvex; dark reddish-brown. Head above gray pubescent, with a little rufous-ochraceous pubescence interspersed; front gray and rufous-ochraceous variegate, narrowly margined laterally with rufous-ochraceous; eye posteriorly margined with pale rufous-ochraceous. Pronotum and scutellum entirely thinly, whitish pubescent. Elytra largely white or whitish pubescent, intermingled with brown pubescence in a roughly triangular area near humeri and on another patch behind median fascia, extending in irregular lines to apex; each elytron with about fifteen pale rufous-ochraceous maculae on basal quarter and about twenty to twenty-five on apical third, a few very indistinct ones along suture at middle, space between these two areas entirely occupied by a broad distinct white fascia, slightly oblique and extending to suture. Beneath dark reddish-brown, hoary-gray pubescent; meso- and metepisterna maculate or vittate with pale rufous-ochraceous, metasternum indistinctly so each side at apex. Legs fuscous, rufous-ochraceous and gray variegated. Antennae dark reddish-brown, distal segments gradually paler; thinly pubescent.

Head above minutely, densely alutaceous, with a few scattered, fine punctures; front minutely, densely alutaceous, with a few, indistinct, coarse punctures medially,

concave between antennal tubercles; genae largely pubescent, minutely alutaceous; eye with lower lobe oblong, one and one-half times the height of gena; antennal tubercles prominent, prolonged apically into moderately long, robust horns. Pronotum strongly transverse, sides widened from base, strongly constricted at apex; disk with a deep, nearly straight apical and a broader, shallower basal, transverse sulcus, at middle before median callosity impressed each side, so that the medial wall of the lateral callosities is nearly vertical; lateral tubercles broad, conical. Scutellum transverse, sides straight, very oblique, apex narrowly rounded. Elytra broadly smooth at very base, thence very finely, moderately sparsely granulate-punctate, from basal quarter to apex finely, sparsely punctate; humeri broadly rounded, at posterior angle with a distinct tubercle; near scutellum, before usual gibbose area, a broad cariniform elevation running toward basal part of humerus but not attaining it. Prosternum simple; procoxae tumid, but not distinctly tubercled; femora clavate, profemora distinctly; transversely rugose on basal half of posterior face. Fifth sternite one and one-fourth times length of fourth, feebly bilobedly emarginate at apex. Antennae one and one-half times body length; scape robust, gradually clavate, internally at base finely, transversely rugose; fringed to fifth beneath.

LENGTH 20 mm.; width 8 mm.

*Holotype*.—Male; Cayaga, Guatemala, April; (W. Schaus); [U.S.N.M. no. 57206].

### *Lochmaeocles callidryas* Bates

PLATE VIII, FIGURE 9.

*Oncideres callidryas* Bates, Ann. Nat. Hist., (3) XVI, 1865, p. 175.

*Oncideres (Lochmaeocles) callidryas* Bates. Bates, Biol. Centr.-Amer., Col. v, 1880, p. 124.

Usually distinctly and entirely hoary-gray on pronotum, base of elytra, and body beneath, without admixture of colored pubescence or maculae of any sort.

**MALE.** Elongate-ovate, rather robust, subcylindrical, elytra subconvex; head and pronotum fuscous, elytra dark brown. Head thinly covered with fulvous and gray variegated pubescence; eye outlined with yellow to orange-buff, the marginal lines extend along each side of glabrous genal stripe. Pronotum gray pubescent, sometimes slightly yellow or orange-buff variegated. Scutellum and extreme base of elytra gray. Elytra rather sparsely covered with very small yellow- to orange-buff maculae, sometimes only very feebly and partially outlined with white, at middle these are pale gray, only slightly confluent, forming a very indistinct, broken, oblique fascia; interspaces with short, dark brown pubescence. Beneath dark brown to fuscous, clothed with light gray or whitish pubescence, immaculate; sternites sometimes fringed apically with pale yellow pubescence. Antennae at base fuscous, from third dark brown; covered with a very thin, gray pubescence. Legs dark brown to fuscous, with a thin gray pubescence.

Head with front finely alutaceous, with a few scattered coarse punctures, gradually widened to base of eyes, then nearly parallel-sided to epistoma; genae

finely alutaceous, sparsely, moderately punctate; eye with lower lobes oblong, about one and one-half times genal height; antennal tubercles with very short, robust, acute spines or teeth. Antennae about one and one-half times the length of body, fringed feebly on scape, third more heavily so, fourth and fifth slightly; scape abruptly clavate from middle, extreme base internally with one groove and a few rugosities. Pronotum transverse, sides almost straight to apical quarter where it is constricted to apex; lateral tubercles robust, conical, obtuse at apex; with an apical and a basal, rather broad, transverse sulcus; disk medially with a flat tumescence, a transverse one either side of this, at base with a few coarse punctures and similar ones at base of lateral tubercles. Scutellum transverse, sides oblique, arcuate, apex rather broadly rounded. Elytra with sides nearly straight, tapering to apices which are together rounded; extreme base smooth, to basal quarter with fine, rather dense granules, thence rather coarsely, deeply punctate, from middle punctures finer and more obsolete; humeri rounded, with a very small tubercle at angle. Prosternum slightly tumid between coxae, abruptly declivous behind; procoxae with a moderate, obtuse tubercle before; femora moderate, clavate behind middle, profemora with base more robust, nearly parallel-sided, slightly clavate apically, basal half feebly, transversely rugose. Fifth sternite about half again as long as fourth, subtruncate at apex.

**FEMALE.** Antennae about one and one-third times length of body, fringe only slightly more extensive, not heavier, than in male; scape rather feebly rugose internally; prosternum less tumid between coxae; femora all similarly shaped, profemora not rugose; fifth sternite twice length of fourth, apex feebly emarginate, indistinctly, triangularly impressed, and with a narrow, glabrous median line.

LENGTH 17.5-21 mm.; width 6-9 mm.

*Type locality.*—"Pará, banks of the Tapajos, and Ega."

*Distribution.*—Western and northern South America.

BOLIVIA: ♂, ♀; Prov. del Sara, 451 m. (J. Steinbach); [C.M.].

PERU: ♀; Middle Rio Ucayali, March 25, 1929; [A.M.N.H.]. ♀; Achinamiza; October 12; [R.P.M.]. 2 ♀; Satipo; [Ward's N.H. Est.]. 2 ♂, 4 ♀; Satipo Valley, Junin Province, October, 1939, July, 1940; (A. Maller); [L. Lacey]. ♂; Oxapampa, 1800 m., August, 1942; (J. Soukup); [L. Lacey].

ECUADOR: ♂; no locality data; [A.M.N.H.].

COLOMBIA: 2 ♀; no locality data; [A.M.N.H.].

FRENCH GUIANA: ♂, ♀; Cayenne; [U.S.N.M.]. ♀; Cayenne; [M.C.Z.]. ♂; St. Jean; [U.S.N.M.].

BRAZIL: ♂, ♀; Pará, July; [C.M.]. 2 ♂, ♀; Santarem; [C.M.]. ♀; Chapada; [C.M.]. ♀; Tefé, Nov., 1924; [A.M.N.H.]. ♀; Tefé; [M.C.Z.].

NO LOCALITY DATA: ♀; [M.C.Z.]. ♀; [C.M.].

### ***Loehmaecles tessellatus* Thomson**

PLATE VIII, FIGURE 10.

● *Oncideres tessellatus* Chevrolat, mss.

*Oncideres tessellatus* Thomson, Physis, II, 1868, p. 90.

Characterized by the presence of reticular lines on apical half of elytra only, the distinct median elytral fascia, and the coarse tawny-ochraceous maculae.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; dark reddish-brown to fuscous; head and pronotum rather densely covered with tawny-ochraceous and light gray variegated pubescence. Head with front medially and laterally more distinctly tawny-ochraceous pubescent; eye posteriorly margined with tawny-ochraceous. Pronotum having the tawny-ochraceous pubescence tending to form more or less indistinct maculae, especially on apical half and near basal angles; rarely the tawny-ochraceous pubescence is replaced by light brown or brown-orange. Scutellum variable in color, sometimes entirely gray, occasionally wholly tawny-ochraceous, usually tawny-ochraceous with the margins gray. Elytra moderately covered with light gray or brown-gray pubescence, paler at extreme base, rather densely maculate with irregularly shaped, small, tawny-ochraceous maculae, between which, especially on apical half, are numerous minute ones interspersed; on apical half there is a strong tendency for the general pubescence to be less dense, forming more or less distinct, reticular lines among the maculae; medially on each side, obliquely fasciate with white, the fascia including a variable number of punctures and sometimes broken into several portions. Body beneath reddish-brown, densely hoary-gray pubescent; sterna maculate and vittate laterally with tawny-ochraceous; abdominal sternites usually margined apically and occasionally more or less variegated laterally, with tawny-ochraceous. Legs dark reddish-brown, hoary-gray pubescent, on anterior side tawny-ochraceous maculate. Antennae with proximal two segments fuscous or piceous, rest reddish-brown; entirely covered with grayish pubescence, more or less variegated with orange or brownish.

Head above densely, minutely alutaceous, with sparse, fine punctures interspersed; front narrowly concave between antennal tubercles, minutely, densely alutaceous, coarsely punctate medially; gena sparsely pubescent minutely, densely alutaceous; eye with lower lobe ovate, from one and one-third to one and two-thirds times height of gena; antennal tubercles prominent, large, produced internally into a long, curved horn. Pronotum strongly transverse, sides nearly straight, at apex constricted; disk with an apical and basal transverse sulcus, the former arcuate, at middle a distinct broad callosity, on each side of which there is a transverse one, just behind apical sulcus is at least one, feeble, transverse carina; lateral tubercles robust, conical; sides before tubercles transversely rugose. Scutellum transverse, sides oblique, nearly straight, apex broad, slightly arcuate. Elytra with sides almost straight, attenuate to apical fourth, then curved to apices, which are together rounded; disk at extreme base smooth, thence with moderate-sized, rather dense granulate-punctures, from basal quarter to apex coarsely punctate, more shallowly so behind middle; humeri oblique, slightly arcuate, terminating in a large, prominent tubercle. Prosternum unarmed; procoxae tumid, with a broad but feeble, obtuse tubercle internally; femora robust, clavate; profemora on basal half transversely rugose posteriorly. Fifth sternite only indistinctly longer than fourth, broadly emarginate at apex. Antennae one and one-half to one and two-thirds times length of body, fimbriate beneath to fifth segment; scape robust, clavate, internally at base deeply, transversely rugose.

**FEMALE.** More robust; front less coarsely punctate; antennal tubercles strongly produced but not horned; elytra more robust, nearly parallel-sided; procoxae with the tubercle more feeble; profemora less robust, not rugose; fifth sternite nearly twice length of the fourth, more narrowly and deeply emarginate at apex, medially with a long impression; antennae one and one-fourth times length of body; scape shorter, less clavate, feebly rugose internally at base.

LENGTH 21-28 mm. width 7.4-10.5 mm.

**Variations.**—The specimen from Mexico differs in having the elytra a little more strongly sloping, the elytral maculation much denser, and the basal granulation somewhat finer. The fifth sternite is also more elongate, being distinctly longer than the fourth. Perhaps this represents a distinct form, but until more material is available, it is believed best to place the specimen here, without further distinction.

**Type locality.**—New Granada, Venezuela, and Costa Rica.

**Distribution.**—Northern South America into Central America.

BOLIVIA: ♂; Rurenobaque, Rio Bene. Oct.; (W. M. Mann); [U.S.N.M.].

COLOMBIA: ♀; Rio Frio, Magdalena, Dec. (P. J. Darlington); [M.C.Z.].

PANAMA: ♂; Taboga Island; (A. H. Jennings); [U.S.N.M.]. 2 ♀; no locality data; (H. G. Treneo); [U.S.N.M.].

VENEZUELA: ♀; Turmero, Nov. 20, 1933; (L. F. Martorel); [U.S.N.M.]. ♂; Ciudad, Bolivar, 100 feet, Oct. 12, 1929; (Ernest Holt); [U.S.N.M.].

BRITISH GUJANA: ♂; no locality data; [A.M.N.H.].

NO LOCALITY DATA: ♂; [M.C.Z.].

### ***Lochmaeocles hondurensis* Dillon and Dillon, spec. nov.**

PLATE VIII, FIGURE 11.

*Hondurensis* is very close to *L. consobrinus*, but is distinct in lacking transverse carinules at middle of pronotal disk; antennal tubercles more widely separated; body form broader; humeri more rounded, less oblique; and the hoary pubescence on elytra is heavier.

**MALE.** Elongate-ovate, robust, subcylindrical; elytra subconvex; fuscous. Head with occiput hoary, vertex flavescent or rufous-ochraceous, sometimes variegated with gray; front flavescent or rufous-ochraceous, gray variegated; eyes posteriorly margined and front with a lateral vitta each side fulvous or ochraceous. Pronotum hoary, variegated with fulvous or ochraceous, more so apically, and sometimes with three shining tubercles, two outer ones more or less transverse. Scutellum hoary, with ochraceous or fulvous sparsely intermixed. Elytra with extreme base hoary, then rather densely covered with grayish-brown pubescence, entire surface except extreme base with many small, irregular, fulvous or ochraceous maculae which are outlined with hoary-gray, at the suture an indistinct vitta and

a more or less indistinct, rather wide band at middle, hoary gray. Beneath fuscous, densely hoary-gray pubescent, sterna laterally with fulvous or ochraceous markings; sternites laterally variegated distinctly with ochraceous or fulvous, only very feebly so at middle. Legs fuscous, variegated with gray and fulvous or ochraceous, darker dorsally. Antennae fuscous, with fulvous, or ochraceous, and gray pubescence, apices darker.

Head above minutely alutaceous; front very concave between antennal tubercles, finely but not densely punctate and with a few coarse, scattered punctures; genae sparsely pubescent, with a few large, shallow punctures on lower two-thirds, eye broadly oval, about one-third genal height; antennal tubercles small, with short, robust acute horns, directed forward and inward. Pronotum transverse, base narrower than apex, constricted very distinctly at apex, behind lateral tubercles less distinctly so; lateral tubercles conical, very broad at base and at apex; apical sulcus deep, recurved; disk with three tubercles, one at middle round, broad, feebly raised, one either side slightly apical, more or less transverse; base of disk either side of middle and base of lateral tubercles with few punctate-granules. Scutellum very transverse, about two and one-half times as wide as long; sides very feebly arcuate, oblique; apex truncate. Elytra with sides nearly straight, only slightly tapering, apices together rounded; extreme base smooth, thence to basal fourth finely, sparsely granulate-punctate, thence to apex with sparse, moderate, deep punctures, finer and less distinct apically; humeri strongly rounded, at posterior angle with one large, glabrous, rounded tubercle directed upward, laterally with only a few punctate-granules. Procoxae with small, blunt, obtuse tubercles; profemora gradually clavate nearly from base, rugose posteriorly at base along upper and lower edges on basal half, remaining femora broadly clavate after basal two-thirds. Fifth sternite about one-third longer than fourth, broadly emarginate-truncate. Antennae one and one-half to one and two-thirds times the body length; moderately fringed beneath on basal four segments; scape robust, gradually clavate, with two or three deep grooves internally beneath.

**FEMALE.** More robust; with front moderately concave; antennal tubercles prominent, only feebly produced; antennae slightly longer than body, scape same as male, but with one groove at base internally; procoxae tumid, not tuberculate; femora gradually clavate, profemora not rugose. Fifth sternite about twice as long as the fourth, emarginate and triangularly impressed apically.

LENGTH 21.5-22 mm.; width 8 mm.

*Holotype*.—Male; La Ceiba, Honduras, April 19, 1916; (F. J. Dyer); [A.M.N.H.].

*Allotype*.—Female; La Ceiba, Honduras, January 14, 1916; (F. J. Dyer); [U. S. N. H.].

### ***Lochmaecles consobrinus consobrinus***

Dillon and Dillon, spec. nov.

PLATE VIII, FIGURE 12.

Differs from *L. tessellatus* in the following respects: front not punctate in either sex; pronotum with sides widened from base, then

at apex strongly constricted; elytra with granulation finer, more extensive, but less dense, followed by finer, gradually obsolete punctures, its maculae of a deeper orange, nearly red in color, more broadly outlined with whitish, the general pubescence denser, not interrupted by the punctures, and not thinner apically to form reticular lines; surface color above and below is darker.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; dark reddish-brown to piceous; head and pronotum covered rather densely with gray pubescence, variegated with tawny, or brown, or with both. Head with front margined each side with tawny, sometimes similarly colored at middle; eye margined posteriorly with orange. Pronotum grayer on basal half medially. Scutellum gray and tawny variegated. Elytra at extreme base hoary-gray pubescent; disk densely covered with pubescence which is hoary, light brown, or hoary and light brown intermixed; maculate rather uniformly with tawny, maculae fairly regular in spacing and in size, irregular in shape, with very few minute ones interspersed, these nearly absent except apically, all outlined with white; reticular lines wanting; medially at extreme sides a more or less broken macula of white, sometimes extended into a very broken, oblique, indistinct fascia. Body beneath dark brown or fuscous, densely hoary-gray pubescent; sterna laterally maculate and vittate, abdomen at sides variegated, with tawny. Legs fuscous, tawny pubescent, varied more or less with hoary. Antennae with first two segments piceous or black, distal segments light reddish-brown, their apices darker; covered with gray pubescence, intermixed with orange or brown.

Head above minutely, densely alutaceous, and finely, sparsely punctate; front concave between antennal tubercles, minutely, densely alutaceous, impunctate; gena more or less pubescent, minutely alutaceous and finely rugose; eye with lower lobe oblong-ovate, from one and one-quarter to one and one-half times the height of gena, nearly as wide as high; antennal tubercles prominent, robust, produced at apex internally into a long, curved horn. Pronotum strongly transverse, sides widened from base, then much constricted at apex; disk with a transverse sulcus before apex and another at base, apical one medially limited behind by a distinct transverse carina or elevation, side of disk either with transverse rugosities or just the usual callosities, median callosity nearly circular; lateral tubercles robust, conical; sides before tubercle transversely rugose. Scutellum transverse, sides slightly rounded, oblique, apex broadly rounded. Elytra with sides nearly straight, attenuate to apices, which are together rounded; extreme base smooth, thence with fine, well spaced granulate-punctures, from basal third to apex succeeded by moderately fine, sparse punctures, obsolete apically; humeri rounded, sometimes obliquely so, posterior angle with a distinct tubercle. Prosternum simple. Procoxae tumid, with a small, broad, distinct tubercle internally; femora clavate, profemora more robust, posteriorly at base transversely rugose. Fifth sternite one and one-quarter times length of fourth, emarginate at apex. Antennae from one and three-quarters to twice length of body, thinly fimbriate beneath to fifth segment, more densely so on third; scape robust, clavate, basal internal rugosities transverse, few in number, more or less concealed by pubescence.

**FEMALE.** More robust. Antennal tubercles unarmed, but prominent; elytra more robust, less tapering; procoxae unarmed; profemora more slender, not rugose;

fifth sternite nearly twice length of fourth, deeply emarginate at apex, impressed linearly at middle.

LENGTH 19-26 mm.; width 7-10.5 mm.

*Holotype*.—Male; Colombia; (Felipe Ovalle); [A.M.N.H.].

*Allotype*.—Female; same data as type; [A.M.N.H.].

*Paratypes*.—Male and female; same data as type; [A.M.N.H.]. Female; same data as type; [authors' coll.]. 1 male; Bogotá, Colombia; [M.C.Z.].

### ***Lochmaecles consobrinus bolivianus***

Dillon and Dillon, subspec. nov.

PLATE VIII, FIGURE 13.

Very similar to the typical form in coloration, but differs in the following respects: Body size larger and more robust. Males with horns on antennal tubercles more slender. Prothorax with several transverse rugosities at middle of disk; lateral tubercle placed a little closer to base. Elytral maculae tawny-ochraceous, less numerous; basal pubescence brownish. Beneath lateral maculation similar to elytral maculae in color. Antennae with third segment in male distinctly, proportionately shorter. Profemora also proportionately shorter.

LENGTH 24-26 mm.; width 9-9.5 mm.

*Holotype*.—Male; Prov. del Sara, Bolivia; [C.M.].

*Allotype*.—Female; Quiroz, Rio Paucartambo, Peru; [authors' coll., through courtesy of Ward's N.Sci.Est.].

*Paratypes*.—Male; topotypic; [C.M.]. Female; same data as allotype; [authors' coll.].

### ***Lochmaecles vestitus* Bates**

PLATE VIII, FIGURE 14.

*Oncideres (Lochmaecles) tessellatus*, var. 1. ♀ (*vestita*, Chev. mss.) Bates, Biol. Centr.-Amer., Col., v, suppl., 1885, p. 366.

Differs from both *L. tessellatus* and *L. marmoratus* in elytral maculae being chrome-yellow, not distinctly outlined with white, elytra not distinctly punctate behind middle.

MALE. Elongate-ovate, robust, subcylindrical, elytra subconvex; fuscous or piceous. Head above gray pubescent, ochraceous towards vertex; front chrome-yellow and gray variegated, with a narrow, distinct vitta either side and a broad, indistinct one medially, chrome-yellow; eyes posteriorly distinctly margined with chrome-yellow; gena more or less pubescent. Pronotum gray pubescent, with scattered, indistinct, chrome-yellow maculae, especially apically and near hind angles. Scutellum hoary-gray pubescent. Elytra densely, hoary-gray pubescent,



with numerous chrome-yellow maculae, which are paler towards the center of each, and not outlined with white; medially at sides a patch of white, broken into maculae, sometimes extending onto disk obliquely and very indistinctly; entire apical three-fifths covered with reticular, narrow, nearly glabrous lines. Body beneath densely gray pubescent; metepisternum externally pale orange vittate; metasternum posteriorly on each side with an oblique chrome-yellow vitta; abdominal sternites apically very narrowly margined with pale orange or chrome-yellow. Legs rather dark reddish-brown, gray pubescent, externally suffused with yellowish. Antennae with two proximal segments fuscous, rest light reddish-brown; hoary-gray pubescent.

Head above minutely, densely alutaceous, basally sparsely, coarsely punctate as well; front densely, finely alutaceous and very sparsely, finely punctate, concave between antennal tubercles; eye with lower lobe ovate, about one and one-third times height of gena; gena more or less pubescent, scabrous; antennal tubercles prominent, apices produced forwards to form long, acute horns. Pronotum strongly transverse, constricted at apex; disk with a rather strong median, and on each side two transverse, subdivided callosities; lateral tubercles conical, rather prominent; base of disk and of lateral tubercles with setigerous punctures. Scutellum transverse, sides broadly rounded, strongly oblique, apices bilobedly emarginate. Elytra with sides nearly straight, tapering to apices which are together rounded; extreme base smooth, then on apical fifth with moderately fine, separated granulate-punctures, thence to middle with moderate glabrous punctures, these finer and indistinct to apex; humeri broadly rounded, with a prominent, distinct tubercle at posterior angle. Prosternum simple; procoxae armed with a small but distinct conical tubercle internally; profemora robust at base, feebly clubbed apically, rugose on basal half, other femora more slender, strongly clavate. Fifth sternite slightly longer than fourth, broadly rounded at apex; subtruncate medially. Antennae nearly twice length of body, fringed beneath to fifth segment, more densely so on third and fourth, especially the former; scape robust, clavate apically, internally at base with four transverse rugosities.

**FEMALE.** More robust; front less deeply concave between antennal tubercles, which are produced only feebly, not horned; elytra less tapering; procoxae unarmed; profemora slightly less robust but similarly shaped, not rugose; fifth sternite nearly twice length of fourth, deeply emarginate at apex; antennae about one fifth longer than body; scape more slender, less rugose internally at base.

LENGTH 22.5-27 mm.; width 8.5-10 mm.

*Type locality.*—Cordova, Mexico.

*Distribution.*—Mexico.

MEXICO: ♂, ♀; Venedio, Sinaloa, June 28, 1918; [C.A.S.]. ♀; Compostala, Nayarit, Sept. 20, 1936; [Ward's N. Sci. Est.].

### **Lochmaeocles marmoratus** Casey

PLATE VIII, FIGURE 15.

*Oncideres tessellatus* auct. [non Thomson].

*Oncideres (Lochmaeocles) tessellatus* Schaeffer [non Thomson], Can. Ent., 1906, p. 18.

*Lochmaeocles marmoratus* Casey, Mem. Col., iv, 1913, p. 351.

The outstanding characteristic of *marmoratus* is the general whitish pubescence, which is heavier, especially on elytra, than in any other species. The colored maculae of elytra are much sparser; the humeri are very strongly rounded, with a large tubercle at the angle.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; dark brown or fuscous, covered with whitish pubescence; eye margined posteriorly with white and orange-ochraceous pubescence which reaches the base of mandibles; front margined each side with white and orange-ochraceous. Pronotum sometimes with indistinct orange markings each side. Elytra with extreme base and usually an oblique, broken fascia at middle of denser white, and with small, irregular, orange-ochraceous maculae, which are usually outlined with white, scattered over disk. Body beneath dark brown or fuscous, densely whitish pubescent, an orange-ochraceous vitta running length of metepisternum and a short, oblique one each side of metasternum before metacoxae of same color; sternites usually each with a pair of small, denuded maculae on each side, which are often indistinct. Antennae reddish-brown, with basal two or three segments and apices of remaining segments piceous; entirely thinly gray pubescent. Legs fuscous, thinly gray pubescent, apices of tibiae and sometimes femora with indistinct, orange maculae.

Head above minutely, finely punctate; front slightly higher than wide, widest at base of eyes, distinctly constricted above epistoma, densely, minutely punctate and with a few large punctures interspersed; glabrous portion of genae, which are about two and one-half times as long as wide, densely alutaceous and sometimes with coarse punctures; antennal tubercles with robust, acute spines which are curved downward and feebly inward; eyes with lower lobe sub-triangular, about as high as wide, upper margin feebly oblique, lower margin rounded, then strongly oblique; upper lobes about as widely separated as their transverse length. Pronotum two times wide as long; sides gradually widened to apical third, thence strongly constricted to apex, each at basal third with a strong, conical tubercle; with a broad, feeble, transverse sulcus before base and behind apex; disk with three indistinct, transverse callosities arranged in triangle at middle, with a very few punctures basally and on lateral tubercles above. Scutellum slightly transverse; sides straight, oblique; apex subtruncate. Elytra with sides feebly arcuate and attenuate to apices, which are together rounded; extreme base smooth, then to basal quarter finely, closely punctate-granulate; remainder of disk finely punctate, more obsoletely so apically; humeri obtuse, rounded, and behind angle a small, prominent tubercle. Prosternum simple; procoxae internally with a robust but obtuse tubercle; femora robust, clavate, transversely rugose at base. Fifth sternite very transverse, about as long as preceding segment, broadly emarginate at apex. Antennae about twice length of body, distinctly fringed beneath through fifth segment; scape gradually clavate, internally at base not grooved, feebly rugose.

**FEMALE.** Antennal tubercle briefly produced; antennae only slightly longer than body; scape robust but more slender; profemora without rugosities; fifth sternite much longer than fourth, broadly rounded at apex.

LENGTH 21-29 mm.; width 7.7-11 mm.

*Type locality.*—San Bernardino Ranch, Arizona.

*Distribution.*—Arizona and Ecuador.

ARIZONA: 6 ♂, 6 ♀; San Bernardino Ranch, Cochise Co., 3750 feet.; (F. H. Snow; E. G. Smyth); [A.N.S.P.; R.P.M.; U.S.N.M.; A.M.N.H.; and C.A.S.].

ECUADOR: ♂, 2 ♀; Zatzayacu, Oriente, April 7, 1935; (W. C. MacIntyre); [L. Lacey].

### *Lochmaeocles sladeni* Gahan

PLATE IX, FIGURE 1.

*Oncideres sladeni* Gahan, Proc. Zool. Soc. Lond., 1903, p. 254.

The elytral fascia is entirely absent from Brazilian representatives of this species; specimens from Paraguay often show a trace of one. The entire elytral disk is minutely irrorate with grayish-white, with larger maculae of yellow or orange-buff interspersed. On the Paraguayan specimens, too, the body surface is generally darker.

MALE. Elongate-ovate, robust, subcylindrical, elytra subconvex; dark reddish-brown to black, elytra usually somewhat lighter apically. Head with gray pubescence, sometimes intermixed with fulvous; eyes posteriorly rather widely margined with buff-yellow or orange-buff; between antennal tubercles, a short, rather wide, indistinct vitta down middle of front and lateral vittae of front, buff-yellow or orange-buff; genae with only a few scattered gray and buff-yellow or orange-buff hairs. Pronotum gray pubescent, with either rather transverse, indistinct, buff-yellow or orange-buff macula, or fulvous pubescence intermixed. Scutellum gray, fulvous variegated. Elytra at extreme base gray, bordered posteriorly with a narrow buff-yellow band just before granules, remainder of elytra glabrous, densely covered with minute maculae of whitish-gray, buff yellow, or orange-buff, over entire elytra with fewer, larger fulvous or orange-fulvous maculae, these denser apically, and usually surrounded with gray or whitish-gray, at middle with a very much broken and indistinct band of large and small whitish maculae, or with some buff-yellow or orange-buff maculae. Beneath dark reddish-brown, densely covered with pale gray pubescence, mesepisterna, metepisternum, and an oblique, irregular vitta on metasternum fulvous; sternites laterally sometimes with very indistinct, large maculae of fulvous, a pale fulvous band on apex of each. Legs dark reddish-brown gray and fulvous pubescent. Antennae with basal two segments piceous, remaining segments reddish-brown; scape gray, with a touch of fulvous pubescence, remaining segments gray pubescent, slightly darker apically.

Head minutely alutaceous; front finely, densely punctate, with scattered, coarse, deep punctures, sometimes feebly rugose near impressed line at middle; gena finely alutaceous, with a few coarse, rather shallow punctures; eye with lower lobe about one and two-thirds times as tall as gena; antennal tubercles prominent and with a long acute horn internally, directed forward and downward. Pronotum transverse, base wider than apex, lateral tubercles broad and with a very short, blunt tip; disk transversely rugose, with a rounded, smooth, feeble elevation at middle; base and base of lateral tubercles with few punctate granules. Scutellum transverse; sides nearly straight, oblique; apex very broadly rounded, sometimes subtruncate. Elytra with sides nearly straight to apical third, then rounded to apices, which are rounded; extreme base smooth, then granulate-punctate to basal

quarter, the granulations becoming feebler, thence simply punctate to apices, more obsolete apically. Procoxae tumid, with a very feeble, obtuse tubercle; profemora slightly clavate from middle, transversely rugose on outer side on basal half, meso- and metafemora gradually clavate from base. Antennae with scape robust, clavate from middle, at base internally transversely rugose; rather heavily fringed on third and fourth, about twice as long as body. Fifth sternite about one-third as long as fourth, feebly emarginate.

**FEMALE.** With wider pronotum; antennae about one third as long as body; antennal tubercles prominent very feebly produced at apex; front concave between antennal tubercles; procoxae tumid; fifth sternite emarginate, with a shallow triangular impression apically.

LENGTH 16.5-29 mm.; width 5.5-11 mm.

*Variations.*—Those from Paraguay and some from Chapada, Brazil, have a more or less distinct transverse band at middle, which is made up of almost white maculae, the larger fulvous maculae are more regular and tend to be rounder.

*Type locality.*—"Central and Southern Brazil. S. Anna do Chapada; Rio Grande."

*Distribution.*—Southeastern Brazil and Paraguay.

**BRAZIL:** 2♂, ♀; no locality data; [M.C.Z.—♂, ♀; Minn. U. ♂]. ♂, ♀; Vicosia, Minas Geraes, 1931; (Mrs. Y. Mexia); [C.A.S.]. 2♂, 2♀; Villa Victoria, Bahia, 1890; (Ch. Pujol); [A.N.S.P.]. ♀; Nova Teutonia, Nov. 21, 1936; (F. Plaumann); [U.S.N.M.]. 3♂, 1♀; Chapada, Oct.-Nov.; [C.M.]. 2♂; Entré Rios; [C.M.]. ♀; Rio de Janeiro; [M.C.Z.]. 2♂; Santa Catharina; [M.C.Z.]. ♂; Santa Catharina; [A.N.S.P.]. ♂; Prov. São Paulo; [C.U.]. 2♂, 4♀; Conduru, Espirito Santo, Oct., 1940; (A. Muller); [L. Lacey]. ♂; Nova Teutonia, Santa Catharina, Dec. 5, 1936; (F. Plaumann); [L. Lacey]. ♀; Minas Geraes, [A.N.S.P.].

**PARAGUAY:** ♀; Horqueta, Nov. 24, 1932; [M.C.Z.]. ♂, ♀; no locality data; [A.N.S.P.]. 2♂, 10♀; Horqueta; (A. Schultze); [C.A.S.]. 9♂, 9♀; Horqueta, March-April, Dec.; (A. Schultze); [L. Lacey].

**NO LOCALITY DATA:** ♀; [C.A.S.].

### ***Lochmaecles pulcher* Dillon and Dillon, spec. nov.**

PLATE IX, FIGURE 2.

Most nearly resembles *L. collidryas* but pronotum covered with pale yellowish-gray pubescence; elytra without whitish fascia; basal third of disk distinctly more sparsely maculate than remaining portion, extreme base yellowish and hoary; body beneath yellowish pubescent.

**MALE.** Elongate-ovate, rather robust, subcylindrical, elytra subconvex; head fuscous, pronotum and elytra dark brown. Head rather thinly covered with pubescence varying in color from primrose-yellow to buff-yellow, at occiput hoary-gray;

eyes margined posteriorly and front laterally with denser pubescence of this same yellow. Pronotum uniformly pale yellowish-white, this denser on some places, giving the appearance of indistinct maculae. Scutellum and extreme base of elytra hoary and yellowish pubescent; elytra thence to apex covered with short, dark brown pubescence; disk entirely maculate with irregularly shaped, dense maculae, varying from primrose-yellow to buff-yellow, smaller and more sparse on basal third, more numerous and with many minute ones interspersed on remainder of surface. Beneath dark brown, with dense, pale yellowish-white pubescence; sterna laterally indistinctly maculate or vittate with primrose-yellow or buff-yellow. Antennae dark reddish-brown, slightly paler apically, very thinly clothed with short, dark brown hairs; scape with few yellowish ones interspersed. Legs brown, moderately clothed with hoary and yellowish pubescence.

Head above finely alutaceous; front with sides nearly parallel, only very feebly narrowed at top of eyes, finely alutaceous and coarsely punctate; genae rugose in upper outside corner, remainder finely alutaceous, with sparse, shallow, coarse punctures intermingled; antennal horns long, slender, directed forward and curved downward. Pronotum transverse, sides from base gradually sloping outward to before middle where it is suddenly constricted just before apex; lateral tubercles robust, obtuse; basal sulcus very shallow; disk with a broad, feebly raised tumescence at middle and slightly apical to this a rather feeble carina, either side of middle a transverse subearinate tumescence, base of disk and lateral tubercles with a few feeble, seigerous-punctate tubercles. Scutellum transverse, sides straight, very oblique, apex subtruncate. Elytra with sides nearly straight, attenuate, apices rounded together; extreme base smooth, then to basal quarter with small, rounded, moderately dispersed granules, which are punctate at base, thence punctate, punctures feebler and obsolete apically; humeri with distinct, robust, rounded tubercle at posterior end; sides rugose on basal quarter. Fifth sternite about one and one-fourth times length of fourth, moderately emarginate at apex; procoxae with a distinct tubercle, which is rugose on its inner side; profemora wide, only very feebly clubbed apically, transversely rugose on inner side nearly to apex. Antennae two times body length; scape gradually clubbed behind middle and on internal side at base with five or six very deep grooves or rugosities.

LENGTH 20-24.5 mm.; width 7.5-10 mm.

*Holotype*.—Male; Pebas, Amazonas, Brazil, Jan.-March, 1880; (M. d'Mathan); [A.N.S.P. no. 8248].

*Paratype*.—Male; same data as type.

### **Lochmaeocles basalis** Dillon and Dillon, spec. nov.

PLATE IX, FIGURE 3.

Closely related to *L. batesi*, differing in having the elytra brown pubescent on basal half, except at extreme base, and with but a few yellow maculae there; elytral apical half is consperse with yellow maculae; pronotum yellowish on apical half. Moreover, the genal glabrous area is nearly oblong, only slightly higher than long, not twice as high as broad as in *batesi*, and the pronotum is only feebly rugose on sides before lateral tubercles.

**MALE.** Elongate-ovate, slightly robust, subcylindrical, elytra subconvex; fuscous. Head above yellow pubescent, near occiput narrowly hoary-gray; front duller yellow; eye margined broadly posteriorly, finely anteriorly, with brighter or paler yellow. Pronotum hoary-gray, broadly ochre-yellow on apical half and sometimes maculate basally with same color; anterior margin fringed with hoary-gray; disk at center glabrous, on each side medially an oblong, transverse, glabrous macula, more or less distinctly impressed at lateral end; a few glabrous punctures basally and above lateral tubercles, bearing long fuscous hairs. Scutellum hoary-gray, suffused with ochre-yellow at center. Elytra at extreme base hoary-gray, before granules maculate or margined with ochre-yellow, from granules to an oblique line running from basal third laterally to behind middle of suture covered with very short, brownish pubescence, interrupted by only a few, irregularly placed, ochre-yellow maculae (about eight to twelve larger ones on each elytron); from this brown area to apex densely consperse with bright yellow maculae, these very irregular in shape and in size, between twenty and twenty-five on each elytron being larger and more or less outlined with white, the lines between maculae brown pubescent; at middle of disk an irregular patch of white and a similar one laterally before it. Body beneath reddish-brown, hoary-gray pubescent; vittate indistinctly on metepisterna and obliquely on sides of metasternum. Legs reddish-brown, front ones darker; hoary gray pubescent, above femora maculate with ochre-yellow, profemora, as well as protibiae, nearly entirely ochre-yellow. Antennae piceous, from fourth paler; thinly yellowish-gray pubescent, grayer distally.

Head minutely, densely punctate; front similarly punctate, with coarse punctures sparsely intermingled, between antennal tubercles narrow, concave; genae with glabrous area subquadrate, only slightly higher than wide, scabrous, with only a few scattered setae; eyes oblong, about one and one-half times height of gena; antennal tubercles prominent, prolonged at apices internally into acute, curved horns directed forward. Pronotum very transverse, sides tumid at apical third; disk with distinct apical and basal transverse sulci, the former arcuate, distinct; at center a feeble, smooth callosity; on base of disk, as well as on lateral tubercles, are a few punctures; lateral tubercles moderate, conical, acute; tumid lateral areas only indistinctly rugose. Scutellum very transverse, nearly semi-circular. Elytra with sides nearly straight, attenuate posteriorly, apices together rounded; extreme base broadly smooth, then closely and regularly granulate-punctate on basal third, granules evanescent behind, becoming simple punctures to middle, from middle to apex punctures finer and gradually sparser; humeri feebly arcuate, oblique, a large, smooth tubercle behind its posterior angle. Prosternum with a transverse process between coxae; procoxae with a depressed obtuse tubercle before; femora clavate, profemora more robust at base and transversely rugose on proximal half. Fifth sternite a little longer than fourth, subtruncate at apex. Antennae one and one-half times length of body; scape comparatively slender, clavate, rugose on basal third internally; beneath fringed to fifth segment.

LENGTH 19.5-20 mm. width 7.6-8 mm.

*Holotype*.—Male; Barro Colorado Is., C.Z., Oct. 11, 1934; (M. Bates); [M.C.Z.].

*Paratype*.—Male; same data as type; [authors' coll.].

**Lochmaeocles zonatus** Dillon and Dillon, spec. nov.

PLATE IX, FIGURE 4.

*Zonatus* is somewhat similar of *L. callidryas* in coloration, but the pronotum and base of elytra are fulvous and hoary-white variegated; the sterna have distinct fulvous maculae laterally; the elytral colored maculae are deeper in color and are usually larger; humeri have a larger tubercle at the angle; and the scape is more slender.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; black or fuscous. Head orange and white pubescent; front variegated with orange and white pubescence, the former color predominating, margined laterally by a vitta of orange; eye similarly margined posteriorly; gena somewhat glabrous, with an oblique band of thin pubescence. Pronotum and scutellum fulvous and hoary-white variegated. Elytra at extreme base hoary-white pubescent, on granular area very thinly covered with dark brown pubescence, and on each elytron with thirty-five larger yellowish to rufous-ochraceous maculae, all more or less outlined with white; at middle an obliquely transverse, broken fascia of white, not attaining suture. Beneath dark reddish-brown, entirely covered with hoary-white pubescence; each meso- and metepisternum and apically on each side of metasternum a spot or short vitta, orange. Legs dark reddish-brown, hoary white pubescent, tarsi thinly so; femora above with small, scattered maculae of orange. Antennae with scape fuscous, rest reddish-brown; thinly clothed with grayish pubescence, denser on bases of third and succeeding segments.

Head above rather densely, finely punctate; front concave between antennal tubercles, with fine, largely concealed punctation, and with a few scattered coarser punctures; gena very densely, minutely alutaceous, rather coarsely punctate beneath the pubescence, one-half narrower than eye; antennal tubercles prominent, armed apically with short, acute horns directed forwards; eye fairly broad, oblong, one and one-third times height of gena. Pronotum very transverse, sides nearly straight, strongly constricted at apex; lateral tubercles robust, obtuse; transversely distinctly sulcate before apex and at base; disk with a single transverse rugosity at middle bordering the apical sulcus, laterally at apical third with from two to four transverse carinae; basally above and on upper side of lateral tubercle a few scattered, fine setigerous-punctures. Scutellum transverse, sides oblique; apex broadly rounded. Elytra with sides nearly straight, attenuate to apices, which are together rounded; extreme base smooth, thence on basal quarter densely, not very uniformly, finely punctate-granulate, followed by coarse well-spaced punctures, which become finer and a little denser from behind middle to apex; humeri oblique, feebly rounded, at outer angle each with a single, large, prominent tubercle. Prosternum simply rounded; procoxae tumid with very feeble obtuse tubercle; femora moderately robust, clavate; profemora feebly thickened apically, rugose on basal half. Fifth sternite nearly one and one-half times length of fourth, very feebly emarginate apically. Antennae one and one-half times longer than body (only proximal nine segments present); scape robust, clavate, with three deep grooves internally at base, fimbriate beneath.

**FEMALE.** Front only slightly less concave than male; antennal tubercles prominent, feebly produced internally; elytra wider than in male; antennae slightly

longer than body; procoxae tumid; profemora not rugose at base; scape with one or two grooves at base not as distinct as in male, more slender. Fifth sternite emarginate and with a triangular impression apically, almost twice as long as fourth.

LENGTH 20-21.5 mm.; width 7.3-8 mm.

*Holotype*.—♂; Tobago, Trinidad; (Anth. Wood) [U.S.N.M. no. 57209].

*Allotype*.—♀; Tobago, Trinidad; (Anth. Wood) [U.S.N.M.].

*Paratypes*.—2 males, 1 female; Georgetown, Brit. Guiana, July 5-6, 1927, at light; (P. P. Bably); [C.U.]. Female; St. Augustine, Trinidad, Dec. 11, 1934; (N. A. Weber); [M.C.Z.]. Female; Blairmont Plantation, British Guiana; (H. E. Bok); [U.S.N.M.].

### ***Lochmaecles obliquatus* Dillon and Dillon, spec. nov.**

PLATE IX, FIGURE 5.

This is one of the most distinct species in the genus, resembling *L. fasciata* in the dense white of the elytral fascia; this, however, does have a few punctures within its boundaries. In other respects, it is more like *L. vermiculata*, from which it is distinguished by the presence of an elytral fascia; body beneath hoary-gray instead of yellowish-gray; humeral tubercle is at the angle, directed posteriorly, while in *vermiculata* the tubercle is before the angle and is directed either outwards or slightly forwards; the elytral maculae include white ones as well as the colored ones.

**MALE.** Elongate-ovate, robust subcylindrical, elytra subconvex; black, elytra fuscous to black. Head hoary-gray and pale buff-yellow pubescent; eyes margined with bright fulvous and white, more broadly so posteriorly, genal stripe broad as eye, with a few scattered hairs. Pronotum hoary-gray pubescent, tinged especially laterally and across middle and base with pale buff-yellow. Scutellum hoary-gray pubescent, at middle usually with a patch of pale buff-yellow. Elytra with extreme base hoary-gray, tinged or varied with pale buff-yellow, rest of disk speckled very uniformly with minute flecks of pale buff-yellow or white pubescence, a number (about twenty to thirty on each elytron) of larger, irregular pale buff-yellow maculae scattered among them; at middle, on each side, an oblique, irregular fascia of dense, white pubescence, usually with a few punctures and sometimes interrupted, extending beyond center, but never to suture. Body beneath dark reddish-brown, hoary-gray pubescent; side pieces of meso- and metasterna, an oblique, short vitta at each apical angle of the metasternum, and apical margins of first four sternites more or less distinctly pale buff-yellow. Antennae black, distally from base of third segment reddish-brown, the apices of each segment black; thinly pale gray pubescent. Legs from fuscous to black, gray pubescent, yellow-fulvous variegated occasionally, the latter color predominates.

Head above minutely alutaceous, finely and sparsely punctate; front minutely, densely alutaceous, coarsely, irregularly punctate; antennal tubercles prominent, internally at apex armed with a forward-directed horn, which varies in length and



shape with the size of the insect; eye oblong, elongate, about one and one-half times the height of the gena; gena densely, minutely alutaceous, with a few, scattered, coarse, setigerous-punctures, more or less arranged in an oblique band. Pronotum very transverse, more than twice as wide as long; sides variable in shape, usually nearly straight, suddenly constricted at apex, sometimes very tumid at apical third; disk with distinct apical and basal transverse sulci, the apical one deeper, sinuate; before middle two distinct transverse carinae, the usual callosity at center; lateral tubercles usually prominent, conical, occasionally smaller, the size inversely correlated to the size of the lateral tumosity at apical third. Scutellum slightly transverse; sides feebly rounded, oblique; apex narrowly truncate. Elytra with sides nearly straight, slightly and gradually attenuate apically; apices together rounded; extreme base rather broadly smooth, then quite finely, regularly, rather densely granulate-punctate, granulation varying in extent, sometimes confined to basal quarter, sometimes covering nearly all of basal half, succeeded by similarly spaced, fine punctures, running to apex; humeri oblique, rounded, ending in a rather large, feebly elevated tubercle. Prosternum simple, not transversely carinate; procoxae with a small, obtuse tubercle before; femora robust, strongly clavate; profemora on basal half beneath transversely rugose. Fifth sternite slightly longer than fourth, emarginate at apex, broadly impressed laterally. Antennae about one and one-quarter to one and one-half times length of body, fimbriate shortly from scape to fourth segment; scape robust, clavate, on basal half internally broadly, transversely rugose, less distinctly so on smaller examples.

**FEMALE.** Antennal tubercles prominent before, but not horned; elytra less tapering, more robust; procoxae unarmed; profemora very feebly rugose at base; fifth sternite nearly twice as long as fourth, apex broadly emarginate, not impressed laterally nor medially; antennae slightly longer than body; fimbriate beneath to fifth segment; scape rugose internally on basal quarter.

LENGTH 19-27.5 mm.; width 7-11.7 mm.

*Holotype*.—Male; Brazil; (O. Lugger); [Minn. U.].

*Allotype*.—Female; Garanhuns, Pernambuco, Brazil, Feb. 1939; (A. Maller); [L. Lacey].

*Paratypes*.—Male; Joazeiro, Brazil, Nov. 26, 1907; [C.M.]. Male; Pedra Alagoas, Brazil, June, 1939; (A. Maller); [L. Lacey]. Male; Garanhuns, Pernambuco, Brazil, March, 1939; (A. Maller); [L. Lacey].

### **Lochmaecles vermiculatus Thomson**

PLATE IX, FIGURE 6.

*Oncideres vermiculata* Chevrolat, mss.

*Oncideres vermiculata* Thomson, *Physis*, II, 1868, p. 91.

Characterized by elytra completely lacking fascia, finely yellow irrorate, the maculae often coalescent to form short, vermiculate lines; pronotum with a distinct transverse yellow line at middle; and the humeri are more rectangular than rounded.

**MALE.** Elongate-ovate, robust subcylindrical, elytra subconvex; fuscous, head and pronotum covered with a thin grayish-brown pubescence; eye behind broadly margined with bright yellowish-gray, anteriorly more finely so, only anterior line extended to base of mandibles; an indistinct pale yellow spot between antennal tubercles. Pronotum with a narrow, transverse, sinuate line on apical third of maize or naples yellow. Scutellum covered with grayish-brown pubescence. Elytra thinly clothed with dark brown pubescence and densely sprinkled with small and minute, irregular maculae of maize or naples yellow, the larger ones very sparse numbering about twenty for each elytron, many smaller ones are vermiculate. Body beneath fuscous, rather densely yellowish-gray pubescent, this pubescence condensed to form a vitta on metepisterna and an oblique line laterally on metasternum before metacoxae. Antennae with basal two segments fuscous, apically becoming paler, thinly clothed with grayish-brown pubescence. Legs fuscous, moderately grayish-yellow pubescent.

Head with vertex finely punctate; front transversely, moderately rugose, gradually narrowed from antennal tubercles to epistoma; antennal tubercles with short, very robust horns projected directly forward; eye with lower lobe very elongate, nearly oblong; genae densely and minutely alutaceous, glabrous area slightly wider than eye. Pronotum about two times as wide as long; sides distinctly widening towards apex, where they are strongly constricted; lateral tubercles broad at base but very short so that pronotum is nearly as wide at apical third as across these tubercles; one feeble transverse sulcus at base and at apex, apical one quite obsolete; disk irregularly transversely rugose, towards middle smoother, with a fine carinule. Scutellum transverse, sides nearly straight, oblique, apex broadly rounded. Elytra with sides straight, tapering to apices, which are together rounded; base with a narrow smooth area, then finely and moderately densely granulate-punctate, the granules gradually disappearing to basal quarter, thence punctate to apex, punctures behind middle very fine; humeri nearly right angular, with a small tubercle which projects outward and upwards at the angle. Prosternum simple; procoxae with a distinct conical tubercle internally at apex. Meso- and metafemora gradually and strongly clavate, profemora robust, with sides subparallel, at base finely, transversely rugose. Fifth sternite distinctly longer than fourth, emarginately truncate at apex. Antennae one and three-quarters body length; scape moderately robust, gradually clavate, internally on basal half with about five strong rugosities or grooves; densely fringed beneath through fourth segment.

**FEMALE.** Antennae slightly longer than body, scape less robust, with only two less distinct rugosities at base, densely fringed through sixth segment; pronotum with sides less widened before and distinctly transversely rugose; procoxae unarmed; profemora nearly as clavate as meso- and metafemora and without transverse rugosities; fifth sternite one and one-half times longer than fourth, feebly impressed at middle, at apex broadly rounded.

LENGTH 25.5-27 mm.; width 9.5-11 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

BRAZIL: ♂, ♀; Conduru, Espirito Santo, Oct.-Nov., 1940; (A Maller); [L. Lacey].  
2 ♂, 2 ♀; Canto Gallo; (Teuscher); [M.C.Z.].

## INCERTAE SEDIS

**Lochmaeocles congener** Thomson

*Oncideres congener* Thomson, *Physis*, II, 1868, p. 89.

MALE. "Specimen rubbed, without any pubescence. Elongate, black, here and there gray pubescent; with large curved horns, slightly directed below, apices acute, antennae at base black, then brown. Prothorax at middle of disk tuberculate, with many transverse carinules, laterally obtusely armed. Elytra elongate, base minutely and rather closely black tuberculate, then punctate, punctures sparse; apices rounded. Body beneath and legs dull grayish-pubescent. Length 30 mm. width 10.5 mm. Brazil."

**Lochmaeocles confertus** Aurivillius

*Oncideres tessellatus* var. 2, Bates, *Biol. Centr. Amer., Col.*, v, 1885, p. 366.

*Oncideres (Lochmaeocles) tessellatus conferta* Aurivillius, *Cat. Col.*, pars 74, 1924, p. 345.

"Elytra with entire base densely granulate thence rather confluent punctate; color less hoary; lateral whitish maculae obsolete". (Bates.)

**EPHIALES** Dillon and Dillon

*Ephiales* Dillon and Dillon, *Sci. Publ. Reading Mus.*, v, 1945, p. xiii.

Very close to *Lochmaeocles*, from which it differs only as follows: front narrow, distinctly elongate; gena transverse; eye with lower lobe elongate-oblong, large, more than twice as tall as gena; antennal tubercles much more approximate, horns directed vertically; pronotum less transverse, unarmed laterally, disk without tubercles; humeri very feebly prominent, anterior margin slightly arcuate; elytra never granulate at base; prosternum narrow anteriorly; antennae with scape gradually clavate from base, third segment nearly twice as long as first, eleventh about one-half longer than tenth.

Moderate-sized, elongate-oblong, robust. Head with front elongate, sides almost parallel, narrowed above and slightly below eyes; genae slightly transverse; eye with lower lobe large, broadly oblong, more than twice as tall as gena; antennal tubercles prominent, well separated, with a short, robust tooth at apex. Pronotum transverse, base wider than apex, sides uneven, bitumid; apical and basal transverse sulci broad, deep; entire disk tumid, not tuberculate. Scutellum transverse. Elytra with sides nearly parallel, apices broadly, separately rounded; disk simply punctate at base; humeri only slightly prominent, anterior margin broadly arcuate, feebly oblique, angle with a large, obtuse tubercle. Prosternum simple, narrow, abruptly widened medially between procoxae; mesosternal process slightly widened posteriorly, apex broadly emarginate. Legs moderate in length; procoxae globose, with a

large tubercle in male; femora robust, clavate, profemora in male rugose at base. Antennae one and two-thirds times as long as body; scape attaining apical third of pronotum, robust, gradually clavate from base, grooved at base in male; third segment straight, cylindrical, nearly twice as long as scape, slightly thicker on basal half; rest gradually shorter, eleventh much longer than tenth, arcuate, with a feeble terminal process.

GENOTYPE: *Hesycha cretacea* Bates.

### **Ephiales cretacea** Bates

PLATE IX, FIGURE 7.

*Hesycha cretacea* Bates, Ann. Nat. Hist., (3), xvi, 1865, p. 173.

*Ischiocentra cretacea* Bates, Lacordaire, Gen. Col., ix, 1872, p. 673.

Easily distinguished by the transverse median fascia of elytra and the pronotum with numerous glabrous maculae, six of which are arranged in a transverse line just before middle.

MALE. Elongate-ovate, robust, elytra convex; fuscous to black, rather densely covered with short, bright fulvous, hoary, and dark brown pubescence. Head largely fulvous, occiput hoary, above toward vertex with two short, dark brown vittae, outlined very narrowly with hoary, one each side of median line; front hoary and fulvous variegated, margined broadly each side and medially toward vertex, indistinctly vittate with denser fulvous; genae dark brown. Pronotum hoary pubescent, somewhat variegated with fulvous, denser fulvous markings arranged irregularly along base and around dark brown maculae; these maculae, in part glabrous, are arranged in two transverse rows, six in the anterior, five in the posterior row; a very few punctures interspersed. Scutellum hoary-gray, apically each side with a rounded, dark brown macula. Elytra on basal quarter and apical third with a number of very irregularly shaped, various sized, fulvous maculae, outlined with white, many of them coalescent, basal ones more or less vermicular, apical ones elongate, a few indistinct ones along suture medially; central portion densely white pubescent, interrupted by glabrous, vermicular lines and points, especially towards suture. Body beneath fuscous, densely hoary pubescent, maculate with fulvous laterad to pro- and mesocoxae, metepisterna entirely vittate with fulvous, and metasternum on each posterior angle with a short, oblique vitta of fulvous and a dark brown, rounded macula; abdomen laterally with a row of five dark brown, round maculae each side, the two basal sternites with two maculae on each side. Legs fuscous, hoary pubescent, indistinctly variegated with fulvous; tarsal claw segment entirely dark brown pubescent. Antennae dark reddish-brown, third segment slightly paler; rather sparsely hoary-gray pubescent, from fourth above dark brown pubescent, the apical segments entirely so.

Head above minutely, densely alutaceous, with a number of uniformly spaced, fine punctures interspersed; front minutely, densely punctate, disk with a number of fine punctures intermingled; genae subquadrate, entirely minutely, densely alutaceous. Pronotum about twice as wide as long, distinctly narrower at apex, sides strongly tumid before middle, nearly equal in elevation to lateral tubercles which

are broad, obtuse, and without a process; apical transverse sulcus broad, deep, sinuous, basal one narrower, straight, joining the lateral oblique ones each side; disk entirely broadly, strongly, transversely tumid, before center of each side an indistinct, transverse tubercle, basally (as well on base of lateral tubercles) a few, irregularly placed, fine setigerous-punctures. Elytra slightly expanded behind middle; disk at base very obsoletely gibbose, rather coarsely punctate, punctures more or less clustered and arranged in irregular lines, from basal third gradually finer, obsolete before apex; humeri scarcely prominent, anterior margin rounded, oblique, angle with a small, rounded tubercle. Procoxae globose, before with an obtuse, conical, prominent tubercle, which is more or less flattened on its anterior face; the metalemera slender and shorter, the profemora strongly robust, nearly cylindrical, posteriorly rugose on basal half. Fifth sternite equal to fourth, apex broadly truncate. Antennae with seventh segment surpassing elytral apex, rather densely fimbriate beneath on first five segments; scape, transversely rugose externally on basal third; third segment very obsoletely arcuate, tapering from base to apex; fourth and following segments distinctly shorter than third but longer than first.

LENGTH 17.5 mm.; width 6 mm.

*Type locality*.—Ega, Amazon region, Brazil.

*Distribution*.—Amazon region to Peru.

PERU: ♂; Satipo Valley, Junin prov., Oct., 1940; (A. Maller); [L. Lacey].

### EUPALES Dillon and Dillon

*Eupales* Dillon and Dillon, Sci. Publ. Reading Mus., v, 1945, p. xii.

Distinguished by the very strongly transverse pronotum, which is also more distinctly narrowed apically than in related genera; by the antennae having the scape cylindrical, gradually clavate apically, the third segment swollen, straight, twice the length of scape, the fourth segment also distinctly longer than first; prosternum strongly widened from behind middle; the elytra granulate-punctate, and by the form of the humeri.

Moderate-sized, elongate-ovate, subdepressed; dark reddish-brown or piccous. Head with front slightly elongate, moderately narrowed below eyes; gena elongate, narrowest just beneath eye; eye with lower lobe ovate, subequal in height to gena; antennal tubercles prominent, well separated, with a robust, rounded tooth at apex. Pronotum strongly transverse, base wider than apex; sides arcuate, lateral tubercle present, not very distinct; disk only moderately uneven, without distinct tubercles. Scutellum strongly transverse. Elytra gradually tapering to apices, which are separately rounded and briefly dehiscent; basal gibbosity feeble, base of disk granulate-punctate; humeri only slightly prominent, with a large, rounded tubercle at the angle, the anterior margin nearly straight, slightly oblique. Prosternum simple, strongly expanded behind middle; mesosternal process broad, nearly as wide as long, apex notched medially. Fifth sternite slightly longer than fourth, apex feebly emarginate in male. Legs moderately elongate, fore ones strongly so; procoxae tumid, armed in male with an uncus; femora gradually clavate, pro-

femora rugose in male. Antennae with sixth segment attaining elytral apex in male; scape gradually clavate from base, very robust, elongate, reaching behind middle of pronotum, grooved basally in male; third and fourth segments robust, cylindrical, straight, the third twice as long as scape, feebly narrowed apically; fourth nearly one-half again as long as first.

GENOTYPE: *Ischiocentra multinotata* Melzer.

### *Eupales multinotata* Melzer

PLATE VII, FIGURE 3.

*Ischiocentra multinotata* Melzer, Rev. Ent., iv, 1934, p. 92.

MALE. Elongate-ovate, rather slender, subdepressed, body tapered from before middle; dark reddish-brown or piceous, rather sparsely covered with hoary and bright ochraceous pubescence, the latter color predominating. Head with eyes margined posteriorly with bright ochraceous; front largely hoary pubescent, narrowly margined each side and indistinctly maculate each side of middle with bright ochraceous; genae nearly glabrous. Pronotum with a more or less distinct macula of bright ochraceous above each basal angle and one each side of middle slightly basal, between the latter two is an elongate, small, glabrous macula. Scutellum sparsely, brown pubescent, each angle broadly hoary and ochraceous pubescent. Elytra with between twenty-five to thirty large, oval, bright ochraceous maculae, more or less outlined with hoary pubescence and with very numerous small ones interspersed, the interstices very sparsely brownish pubescent. Body beneath dark reddish-brown, sparsely hoary pubescent, metasternum medially and first three abdominal sternites medially with glabrous, transverse areas; prothorax and metasternum laterally and meso- and metasternal side-pieces maculate with bright ochraceous. Legs dark reddish-brown, sparsely covered with hoary and ochraceous variegated pubescence; tarsi entirely hoary. Antennae dark reddish-brown, scape nearly fuscous; proximal three segments pale fulvous-gray pubescent, from fourth dark fulvous, basal halves of segments four, six, and eight hoary pubescent (ninth to eleventh segments wanting).

Head minutely, densely alutaceous; front minutely, densely alutaceous, very finely, rather sparsely punctate, and with a large number of moderate-sized punctures over entire disk; genae elongate, minutely, densely alutaceous, feebly rugose below; antennal tubercles at apex armed with a short, broad, flattened tooth which is directed slightly laterad. Pronotum distinctly more than one-half again as wide as long; sides uneven, strongly constricted at apex; apical transverse sulcus shallow, obsolete medially, basal one straight, narrow, deep, briefly separated from the broader lateral oblique ones; disk medially towards base with a low, oval tubercle, anterior to which are several fine, transverse rugosities, these terminate at middle of each side in a large, transverse tubercle behind each of which is a smaller, oval one; basally coarsely, sparsely punctate. Scutellum with sides straight, oblique; apex broad, feebly arcuate. Elytra gradually attenuate to apices; disk at base coarsely, irregularly granulate-punctate, the granules small, evanescent behind basal quarter, from middle more finely punctate to apex. Procoxae tumid behind, anteriorly with a short, conical uncus that is only feebly curved at apex; profemora more robust at base, entire basal half finely rugose.

LENGTH 14.5 mm.; width 5 mm.

*Type locality*.—Itatiaya, Rio de Janeiro, Brazil.

*Distribution*.—Southeastern Brazil.

BRAZIL: ♂; Rio de Janeiro, December; [C.M.].

### LEUS Dillon and Dillon

*Leus* Dillon and Dillon, Sci. Publ. Reading Museum, v, 1945, p. xiv.

Most closely related to *Eupales*, differing in having eye with lower lobe broader, more oblong, slightly taller than gena; pronotal disk with three distinct tubercles; elytra more attenuate apically, at base of disk simply punctate, punctures finer apically, humeri with a distinct carina to middle of elytra; antennae with scape less robust, clavate from only basal third, third and fourth segments slender, the former feebly sinuate; and procoxae in male not uncate, feebly tuberculate anteriorly.

Moderate-sized, elongate-ovate, subdepressed. Head with front slightly elongate, moderately narrowed below eyes; genae elongate; eye with lower lobe oblong-ovate, slightly taller than gena; antennal tubercles prominent, distant, armed with a short, blunt tooth in male. Pronotum transverse, widest at base, sides feebly arcuate, behind middle with a broad, obtuse tubercle without process; disk with three broad, poorly elevated tubercles. Scutellum transverse. Elytra rather strongly tapering to apices, which are separately rounded; disk basally gibbose, on basal half with coarse, deep, sparse, simple punctures, on apical half punctures finer; humeri prominent, anterior margin arcuate, oblique, with a larger, rounded tubercle at angle, which is followed by a distinct carina to middle of length of elytra. Prosternum simple, strongly widened behind middle; mesosternal process broad, nearly as wide as long, emarginate at apex. Legs moderate in length; procoxae globose, with a feeble tubercle anteriorly in male; femora moderately robust, gradually clavate beyond basal third, profemora slightly more robust and rugose basally in male; metatibiae not dilated in male; protarsi very feebly dilated in male. Antennae one and one-half times body length in male; scape robust, just about attaining middle of pronotum, strongly clavate from basal third (male); third segment nearly twice length of first, feebly bisinuate; fourth one-half longer than first, rest gradually shorter, eleventh subequal in length to tenth, not processed at apex.

GENOTYPE: *Leus piperella* Dillon and Dillon, spec. nov.

### *Leus piperella* Dillon and Dillon, spec. nov.

PLATE VII, FIGURE 4.

MALE. Elongate-ovate, rather robust, tapering posteriorly; head and pronotum piceous, elytra dark reddish-brown. Head bright fulvous pubescent, on vertex either side of middle an elongate, triangular, dark brown macula, and two or three small, irregular maculae of same color on sides of head behind lower lobe of eyes; front dark brown, with a large, elongate, irregular, pale greenish-gray macula

medially, either side with a narrow vitta of bright fulvous. Pronotum thinly greenish-gray pubescent, with a few, small, irregular maculae of dark brown, particularly at apex. Scutellum greenish-gray pubescent, at middle with a small, dark brown macula. Elytra on basal half dark brown and greenish-gray pubescent, at middle a broad, oblique (from side to suture), greenish-gray fascia, which is bordered posteriorly by a narrow, irregular fascia of dark brown; apical fourth of elytra with numerous, bright fulvous maculae, one nearest apex larger, more or less rounded, spaces between maculae dark brown. Beneath reddish-brown, thinly clothed with greenish-gray pubescence; metepisterna and fifth sternite thinly bright fulvous pubescent. Legs dark reddish-brown, pale greenish-gray pubescent. Antennae with scape piceous, above pale fulvous pubescent, at apex slightly variegated with dark brown, beneath greenish-gray; remaining segments reddish-brown, third segment on basal half greenish-gray, on apical half brownish; from fourth, segments basally narrowly grayish, remaining portions brownish.

Head with front elongate, sides slightly widened to lower margin of eyes, thence narrowed to epistoma, surface alutaceous and with scattered, coarse, deep punctures; genae narrowest just below eyes, surface alutaceous with a few scattered, coarse punctures. Pronotum with apical sulcus deep, strongly curved at middle, basal sulcus oblique laterally; disk with three feebly elevated, rather broad tubercles, one medially just before basal sulcus and one either side of middle more apical. Elytra with sides nearly straight. Fifth sternite slightly longer than fourth, very feebly emarginate at apex. Profemora a robust, gradually clavate from base, rugose from base to middle, remaining femora more abruptly clavate. Antennal scape with one or two feeble grooves basally, remaining surface finely, densely punctate.

LENGTH 12.8 mm.; width 4.8 mm.

*Holotype*.—Male; Las Juntas, Bolivia, Dec. 1913; (J. Steinbach); [C. M.].

### CICATRODEA Dillon and Dillon

*Cicatrodea* Dillon and Dillon, Sci. Publ. Reading Mus., v, 1945, p. xii.

Not closely related to any other genus but probably closest to *Ischiocentra*. Distinct from all others of the tribe in having a cicatrix on the scape; from *Ischiocentra* it differs in the more cylindrical form of body; elytra granulate-punctate at base; and antennal third segment only slightly longer than first.

Moderate-sized, robust, subcylindrical; fuscous. Head with front broad, subquadrate, narrowed below from lower margin of eye; gena feebly elongate or subquadrate; eye with lower lobe elongate-oblong, longer than gena; antennal tubercles prominent, well-separated, with a short, robust tooth in male, feebly armed in female. Pronotum transverse, slightly narrower apically than at base, laterally unarmed or nearly so. Scutellum slightly transverse. Elytra feebly attenuate apically in male, in female slightly widened behind middle; apices separately rounded; basally on each disk with a rounded, moderately elevated gibbosity, disk on basal half granulate-punctate, punctures finer, simple, and obsolete apically; humeri



prominent, anterior margin arcuate, feebly oblique, angle with a prominent tubercle. Prosternum simple, narrow; mesosternal process elongate, apex deeply emarginate. Fifth sternite with apex broadly arcuate in male, in female arcuate at apex but notched at middle, on disk with a feeble, triangular impression. Legs rather short; procoxae prominent, strongly uncate in male, distinctly tuberculate in female; femora abruptly clavate after basal one-third, robust; profemora in male rugose basally. Antennae nearly twice as long as body, one and one-fourth times body length in female; scape elongate, reaching to beyond middle of pronotum, clavate on apical half, transversely cicatriced at apex, in male with a few feeble rugosities on base externally; third segment a little longer first, arcuate; fourth subequal to first, rest gradually shortened; eleventh elongate in male.

GENOTYPE: *Cicatrodea bahia* Dillon and Dillon, spec. nov.

#### KEY TO SPECIES

- Abdominal sternites not brown-banded; pronotum with a distinct, median, yellowish vitta and an oblique line of same color each side.....*monima*.  
 Abdominal sternites brown-banded; pronotum with only an indistinct remnant of a median vitta, without lateral oblique lines.....*bahia*.

### ***Cicatrodea bahia* Dillon and Dillon, spec. nov.**

#### PLATE I, FIGURE 9.

The elytral markings of this interesting insect recall those of *Plerodia obliquator*; the designs on the abdominal sternites, however, are more similar to the ones which occur in *Ischioderes*. These two characters, plus the cicatriced scape which characterizes the present genus, will serve to distinguish this species at once.

**MALE.** Elongate-ovate, rather robust, subcylindrical; fuscous. Head covered with rosy-white pubescence; eye posteriorly, and front each side, margined with denser pubescence. Pronotum white and deeper rosy pubescent, rather densely and uniformly brown-punctate, medially there is an indistinct, blurred, median vitta of denser pale rosy-white, as well as one or two scattered patches of similar pubescence each side. Scutellum and elytra at base uniformly rosy-fulvous; the elytra thence fulvous or grayish-fulvous to apex with linear markings or dense, hoary-gray tomentum as follows: a sinuous line from humerus, divided at basal one-third, one branch extending across disk to near suture behind middle, and continuing parallel to it to apex, bifurcating at apical quarter, the external fork joined by several short, irregular streaks, the external branch of this line running obliquely to lateral margin at middle, then extending along the thickened portion posteriorly to apex, and laterally at apical third there is a short, oblique, sinuous streak. Body beneath dark reddish-brown to fuscous, covered with dark brown pubescence, medially somewhat hoary, on both sides with hoary-gray tomentose markings as follows: an oblique streak on prothorax before procoxae and on the mesepisternum, metepisternum with a comma-shaped mark basally and a rounded macula at apex, and a short, irregular streak on metasternum before the coxae; abdomen with each sternite narrowly, transversely banded with hoary at base and near apex, the apices

of first to fourth sternites glabrous, highly polished, these sternites each also with a small hoary macula each side. Legs dark brown to fuscous, hoary or rosy-white pubescent, the metafemora broadly maculate with brown at middle; tarsi concolorous. Antennae fuscous, fulvous brown pubescent; fourth, sixth, eighth, and tenth segments indistinctly gray annulate basally.

Head slightly wider than prothorax at apex, minutely, densely punctate; front convex when viewed from sides, broadly concave between antennal tubercles, minutely, densely punctate and uniformly, sparsely, finely so as well; gena narrow, slightly longer than broad, sculpturing as in front; eye with lower lobe nearly twice height of gena. Pronotum unarmed; apical transverse sulcus deep, sinuous, basal one more shallow, straight, coalescent with lateral oblique ones; disk finely and rather densely punctate, a small, median tubercle toward base, each side with a strong, transverse tumid area, widely separated at middle but extending to extreme side. Scutellum with sides straight, oblique; apex broadly rounded. Procoxae anteriorly with a long, slender, strongly curved uncus; profemora more elongate, at base coarsely rugose; metatibiae only slightly expanded apically. Fifth sternite slightly longer than fourth, apex feebly areuate.

FEMALE. More robust; antennal tubercles a little less distinctly dentate; procoxae with a small, distinct tubercle anteriorly; profemora not elongate, not rugose basally; fifth sternite one-half longer than fourth, apex narrowly truncate, medially with a shallow transverse impression; antennal segments from fourth gradually shortened.

LENGTH 13-14 mm.; width 5.5-5.7 mm.

*Holotype*.—Male; Cachimbo, Bahia, Brazil, 1890; (Ch. Pujol); [A.N.S.P. number 8242].

*Allotype*.—Female; topotypic; [A.N.S.P.].

### *Cicatrodea monima* Dillon and Dillon, spec. nov.

PLATE I, FIGURE 10.

Very closely related to the preceding but differing from it in the following respects: pubescence of pronotum and elytra uniformly brown, the former with a distinct, entire, median vitta and an anterio-lateral oblique stripe of ashy, the elytra with a distinct, short streak behind scutellum suturally; pubescence of head not roseate; pronotal transverse sulci obsolete; and the abdominal sternites not distinctly brown-banded, basal four marked toward each side with an oblique streak of denser ashy.

FEMALE. Elongate-ovate, rather robust, subcylindrical; fuscous to piceous, densely covered with brown pubescence. Head ashy-pubescent, becoming fulvous on front; eyes posteriorly and front each side margined with denser fulvous pubescence. Pronotum with a distinct median ashy vitta, extending from base uninterruptedly to apex; on each side from apical margin above anterior angle a narrow, ashy stripe, running obliquely downwards to middle. Scutellum with basal angles touched with ashy. Elytra each with a complex series of linear, ashy mark-

ings arranged as follows: a sinuous line from humerus to suture behind middle, bifurcate at basal third, the lateral fork extending obliquely to middle of sides, thence along the margin indistinctly to apex, the sutural portion coalesces in part with a short sutural vitta, then recurves slightly laterally and attains the apex; at basal quarter on sides of disk a line is placed obliquely approaching the lateral border where it becomes double and reaches an apical patch; between the principal sutural line and this latter latero-apical one is a series of several short streaks, anteriorly towards suture enclosing an elongate-oval brown patch and forming a more or less distinct ocellus; behind scutellum a short, oblique streak. Body beneath fuscous, densely brown pubescent, medially somewhat hoary, each side maculate with ashy as follows: prothorax on each side of procoxal angulation narrowly streaked; mesepisternum rather broadly, obliquely banded, the band slightly arcuate and somewhat attenuate below; metepisternum anteriorly with a large comma-shaped macula and with a narrow vitta which expands at its apex to form an inverted "T"; abdomen largely ashy-pubescent, each sternite rather indistinctly banded medially with brown, becoming more distinct on posterior segments, basal four sternites each marked laterally with an oblique streak of denser ashy. Legs fuscous to black, covered with dull fulvous pubescence; pro- and mesofemora indistinctly annulate before apex with brown, metafemora brown pubescent, annulate near apex with ashy; tarsi concolorous. Antennae fuscous, densely brown pubescent, fourth, sixth, eighth, and tenth segments very indistinctly annulate at base with ashy.

Head slightly wider than prothorax, densely minutely alutaceous above; front minutely, densely punctate; genae subquadrate, minutely, densely, and somewhat rugosely punctate; eye with lower lobe oblong, slightly tapering below, large, about one and one-third times the height of gena; antennal tubercles unarmed at apex. Pronotum unarmed; transverse sulci broad, shallow, indistinct; disk on basal half finely and sparsely punctate, anteriorly smooth, at middle of each side transversely tumid, each tumescence with one or two feeble rugosities. Elytra with sides broadly arcuate to apices, scarcely wider behind middle; disk on basal quarter finely, rather densely granulate-punctate, behind basal quarter punctures simple, middle of apical half smooth.

LENGTH 17 mm.; width 6.3 mm.

*Holotype*.—Female; Rio Ucayali, Peru, October 3, 1923; (H. Bassler); [A.M.N.H.].

### ISCHIOCENIRA Thomson

*Ischiocentra* Thomson, Class. Ceramb., 1860, p. 362. Thomson, Syst. Ceramb., 1864, p. 392. Lacordaire, Gen. Col. ix, 1872, p. 667, 673.

Distinguished by the elytra being more or less parallel-sided basally, the humeri not very prominent, with anterior margin broadly arcuate, slightly oblique; antennae elongate, the third segment much longer than first, straight; pronotum armed laterally; front slightly elongate, a little widened at lower margin of eyes; and eye with lower lobe oblong, as tall as or taller than gena.

Moderate-sized, elongate-ovate, robust, subcylindrical; reddish-brown to black, moderately covered with pubescence; elytra often with a more or less distinct median white fascia. Head with front slightly elongate, slightly widened at lower margin of eyes, thence gradually narrowed to epistoma; gena vertical; eye with lower lobe oblong, taller than or subequal to gena; antennal tubercles distinctly separated, robust, armed with a distinct tooth in male, with a short tooth in female. Pronotum strongly transverse, cylindrical, apex slightly narrower than base; lateral tubercles feebly elevated, sometimes with an elongate process. Scutellum transverse. Elytra nearly parallel-sided to behind middle, apices separately rounded; basal gibbosity very feeble, disk coarsely granulate-punctate or simply punctate on basal half, punctures finer apically; humeri scarcely prominent, anterior margin broadly arcuate, slightly oblique, angle with a large tubercle. Prosternum simple, widened posteriorly; mesosternal process longer than wide, slightly widened posteriorly, apex broadly, deeply emarginate. Legs moderate in length; procoxae globose, tuberculate in male, tubercle bearing a long process, feebly tuberculate in female; femora clavate, robust, profemora in male coarsely rugose basally. Antennae one and two-thirds times or more body length in male, one and one-half times in female; scape attaining apical third of pronotum, gradually clavate apically, more robust in male and coarsely rugose at base; third segment straight, elongate, one and one-third to one and two-thirds times as long as first, third and fourth feebly swollen; rest gradually shorter, eleventh slightly elongate in male.

**GENOTYPE:** *Ischiocentra clavata* Thomson, by monotypy [= *Hesycha albilatera* Pascoe.]

#### KEY TO SPECIES

1. Head above with two yellow vittae between eyes.....*nobilitata*  
Head not vittate above.....2
2. Elytra with a distinct, median, oblique, white fascia.....3  
Elytra without a distinct median fascia.....4
3. Elytra with a large, white, irregular macula nearly covering apical third;  
pronotum medially with a distinct yellow vitta.....*quadrisignata*  
Elytra without any apical macula; pronotum not yellow vittate medially  
*albilatera*
4. Elytra everywhere variegated with yellowish, irregular, more or less confluent  
maculae; abdomen laterally maculate with yellow.....*alternans*  
Elytra ochraceous-gray pubescent, variegated with rather dense, rotund punctures;  
abdomen not maculate with yellow.....*costalimai*

### *Ischiocentra albilatera* Pascoe

PLATE X, FIGURE 15.

*Hesycha albilatera* Pascoe, Trans. Ent. Soc. Lond., (2), v, 1859, p. 36.

*Trestonia albilatera* Pascoe. Bates, Ann. Nat. Hist., (3) xvi, 1865, p. 312 (scp. p. 198).

*Ischiocentra albilatera* Pascoe. Lacordaire, Gen. Col., ix, 1872, p. 673.

*Ischiocentra clavata* Thomson, Class. Ceramb., 1860, p. 383.

Related to *cretacea*, but differs from it in the elytral fascia having its anterior margin oblique, laterally prolonged anteriorly and attaining humerus, and the pronotum with only three very indistinct glabrous maculae.

**FEMALE.** Elongate-ovate, cylindrical, slender; reddish-brown, sparsely covered with ochraceous and hoary variegated pubescence, mottled moderately with brown. Head with front laterally and eye posteriorly margined with bright ochraceous. Pronotum with three indistinct glabrous maculae, arranged in an inverted triangle at middle. Scutellum very sparsely brownish pubescent, laterally margined with ochraceous-gray. Elytra covered with sparse, irregularly placed, pale ochraceous pubescence, on apical half feebly variegated with hoary and coarsely mottled with brown; each side with an irregularly triangular, white patch extending from below humeri to just behind middle, not attaining suture, the inner angle prolonged apically, slightly interrupted by coarse punctures, the patch bordered posteriorly by an indefinite, brown, oblique band. Body beneath reddish-brown, sparsely hoary-gray pubescent, laterally marked with bright ochraceous as follows: mesosternal side-pieces and metacoxae entirely ochraceous, metepisterna maculate at base and apex, and metasternum with an oblique macula toward apical angles; abdomen paler reddish-brown, hoary pubescence much interrupted by coarse, glabrous mottling, especially medially, but only sparsely so on fifth sternite, each side with two rows of poorly-defined ochraceous maculae. Legs reddish-brown, sparsely covered with hoary and ochraceous variegated pubescence; tarsal claw segment darker apically, claws especially darker. Antennae pale reddish-brown, scape slightly darker at extreme base; covered with sparse, short, fulvous pubescence, fourth, sixth, eighth, and tenth segments very indistinctly hoary at base.

Head above minutely, densely punctate; front minutely, densely punctate and with a number of fine punctures interspersed, especially medially; eye with lower lobe elongate-oblong, gradually narrower below, equal to at least one-third again the height of gena; antennal tubercles at apex with a short, obtuse tooth. Pronotum behind middle with a minute tubercle; apical transverse sulcus sinuous, basal one straight, both distinct, the latter coalescent with the feeble lateral oblique ones; disk at middle with a long, arcuate, transverse, impressed line, medially interrupted by a feeble, rounded callosity, minutely alutaceous and finely punctate, especially across base. Scutellum with sides broadly curved, oblique, apex subtruncate, feebly notched at middle. Elytral disk on basal half coarsely, densely punctate, punctures shallow, nearly absent from white area, behind middle much sparser and finer to apex. Prosternum simple, narrowed anteriorly, widened to middle, then nearly parallel-sided to base. Procoxae tumid posteriorly, before with a broad, feebly elevated tubercle; profemora not rugose. Fifth sternite one-half longer than fourth, apex broadly, feeble emarginate, disk with a distinct median impression. Antennae one and three-quarters times the length of body, sixth segment attaining elytral apex, very sparsely fimbriate beneath to apex, rather densely so on third to fifth segments; scape rather slender, very gradually clavate apically, rugose at base; third segment one-half again as long as first.

LENGTH 18.5 mm.; width 6.3 mm.

*Type locality*.—Pará, Brazil.

*Distribution*.—Northern Brazil.

BRAZIL: ♀; no locality data; [M.C.Z.].

### ***Ischiocentra alternans* Aurivillius**

*Ischiocentra* (?) *alternans* Aurivillius, Ark. Zool., XIII, 1920, p. 22.

"Black-fuscous, vittate and maculate with ochraceous-yellow; antennae, except black scape, brown, segments four, six, and eight (10?) at base broadly yellow annulate. Front narrow, much higher than wide, obsolete punctate, both sides yellow lined; genae slightly shorter than eyes; antennal tubercles erect, subcontiguous, separated by a deep, narrow fissure, internal apex armed with an erect horn-like process; temporal vittae oblique, single vitta on vertex yellowish. Prothorax broadly transverse, subquadrate; each side behind middle with a black obtuse tubercle, above nearly smooth and with three yellow vittae. Scutellum dark or broadly yellowish pubescent. Elytra at humeri prominent, black, disk between humeri and scutellum longitudinally broadly elevated, towards apex distinctly narrowed, apices rounded, at base strongly, apically obsolete, irregularly punctate, everywhere variegated with yellowish maculae, which are irregular and more or less confluent. Breast yellow maculate; abdomen black, finely gray pubescent, each side maculate with yellowish. Femora apically above yellow maculate; tibiae yellow annulate; tarsi yellow, last segment apically black.

"LENGTH 15 mm.; width 18 mm.

"Male with antennae nearly two times body. Procoxae with short obtuse tubercle, profemora robust. Espírito Santo, Brazil.

"Reichmuseum in Stockholm. According to Lacordaire's key belongs to *Jamesia*." (A translation of the original description).

### ***Ischiocentra costa-limai* Melzer**

*Ischiocentra costa-limai* Melzer, Arch. Inst. Biol., IV, 1931, p. 57, pl. 11, f. 9.

"Brown, ochraceous-gray pubescent, variegated with rather dense, brown, round punctures; elytra with decumbent black setae; antennae brown, segments three, four, six, eight, and ten gray annulate at base; head between antennae strongly concave, slightly punctate, front elongate, trapezoidal, flat, longitudinally sulcate, yellow lined; antennal tubercles large, elevated, externally flexuose; lower ocular lobe moderately elongate, genae elongate, antennae in male about two times body length, in female the four last segments pass the elytral apex, below ciliate, scape elongate, strongly clavate, at base externally, coarsely, transversely scabrose; thorax cylindrical, shorter than wide, dorsum irregular, laterally before middle with a small tubercle, finely and sparsely punctate. Scutellum apically subrotund, longitudinally sulcate, densely tomentose. Elytra at base much broader than thorax, from humeri to apex gradually attenuate, apices each rounded humeri glabrous, shining, black tuberculate; basally not tuberculate, moderately, densely, irregularly, and deeply punctate, punctures posteriorly more obsolete. Procoxae globose, male with a curved uncus, female unarmed; prosternal process broad;

mesosternal process twice as broad. Femora short, male profemora robust, strongly clavate, basally transversely, coarsely scabrose, female simple. Body beneath flavescens-gray tomentose, variegated slightly with fuscous punctures.

"LENGTH 13 mm.; width 17 mm.

"Described from fourteen examples: Brazil. Estado de São Paulo: Bosque da Saude perto a Capital; Estado da Espirito Santo; Fazenda Jerusalem; Estado Santa Catharina: Joinville." (Translation of the original description).

### *Ischiocentra quadrisignata* Thomson

PLATE X, FIGURE 14.

*Ischiocentra quadrisignata* Thomson, Physis, II, 1868, p. 57.

Pronotum with three yellowish vittae; elytra each with two large, oblique, white maculae, forming a dark fascia between them; front broadly margined with fulvous each side; and antennae very nearly unicolorous.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; head and pronotum piceous, elytra medium to dark reddish-brown. Head above and on sides light yellow pubescent, mottled with dark brown; front with sparse yellow pubescence which laterally becomes much denser to form a broad vitta either side. Pronotum sparsely bright yellow pubescent, pubescence condensed to form five vittae, one at middle broad, extending from base to apex, one just above each lateral tubercle, narrower, reaching from base to middle, one below each lateral tubercle very broad, somewhat oblique; the entire remaining surface with small, round dots of dark brown, which in some specimens are well separated, in others partially coalesced, each vitta below the lateral tubercles with a few of these dots scattered on its surface. Scutellum sparsely dark brown pubescent, with the basal angles and lateral margin bright yellow, frequently at middle with a small, irregular macula or very narrow vitta of bright yellow. Elytra densely yellow-fulvous pubescent, each with two large whitish maculae, one just before middle oblong, oblique from humerus, not attaining suture, sides nearly parallel, slightly wider just behind humeri, the second covering most of apical third, elongate, irregular in outline, both maculae very sparsely mottled with dark brown; the yellow-fulvous areas are very densely mottled with dark brown (on base mottling is formed by granulations) which are very frequently coalesced. Beneath reddish-brown, sparsely pale gray-fulvous pubescent; mesepisternum completely and anterior quarter of metepisternum yellow-fulvous, a small, more or less elongate, irregular macula of same color laterally on metasternum; sternites laterally with a cluster of small, round dark brown dots, on the inside of these are small, elongate maculae of bright fulvous, forming a more or less loosely connected vitta; entire surface with a few, small, round, dark brown dots. Legs with femora dark reddish-brown, tibiae broadly annulate at middle with paler and tarsi lighter reddish-brown, entirely covered with yellow pubescence, metafemora with an irregular dark brown macula at middle. Antennae with scape dark to medium reddish-brown, remaining segments paler, first segment to basal half of fourth with yellow pubescence, from apical half of fourth with fine, sparse, pale brownish pubescence.

Head above finely alutaceous; front finely alutaceous, with well-spaced coarse punctures, more numerous medially; genae finely alutaceous, with scattered coarse punctures; eye with lower lobe somewhat narrow, elongate-oblong, subequal to gena in height; antennal tubercles produced at apex into a robust, subacute process which is directed upwards; sides of head lateral edge of front and base of antennal tubercle above eye with setigerous punctures set in the small brown mottling. Pronotum with sides slightly arcuate; apical transverse sulcus nearly straight, basal one deeper either side of middle and then shallow in the oblique portion over the lateral tubercles; lateral tubercles feebly elevated but with a long, rather robust process; entire surface with coarse, shallow punctures in the dark brown mottling, punctures on the bases of the disk and lateral tubercles setigerous. Scutellum with sides nearly straight, oblique, apex broadly rounded. Elytra with extreme base smooth, basal fifth from humeri obliquely to middle (along anterior margin of first macula) rather densely granulate-punctate; remaining surface with a large, shallow puncture in each small dark brown dot; humeri prominent, anterior margin nearly straight, feebly oblique. Prosternum much narrowed between procoxae (entire abdomen lacking). Procoxae very globose, with a distinct ridge which overlaps prosternum internally, with a robust, very feebly curved uncus which is slightly dentate on the curved edge; profemora robust, gradually clavate to apex, roughly transversely rugose to beyond middle on all four sides, other femora slightly less robust and more abruptly clavate; protarsi feebly dilated. Antennae one and two thirds body length; scape very robust, not attaining middle of pronotum, strongly clavate, internally and externally on basal third with several deep grooves, remaining surface densely, finely punctate; third segment straight, moderately slender, two-thirds longer than scape.

FEMALE. More robust; antennal tubercles less prominent, very feebly produced at apex; prosternum broad; fifth sternite nearly twice length of fourth, at apex narrowly rounded and feebly emarginate, and with a narrow, shallow, triangular impression apically; procoxae less globose, ridge overlapping prosternum feebly, feebly, obtusely tuberculate internally; profemora much less robust, feebly transversely rugose basally; antennae one-third longer than body, scape less robust and feebly clavate, less noticeably grooved basally.

LENGTH 17-19.5 mm.; width 6.5-8 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

BRAZIL: ♂, ♀; no locality data; [M.C.Z.]. ♀; Nova Friburgo; [M.C.Z.].

### *Ischiocentra nobilitata* Thomson

*Ischiocentra nobilitata* Thomson, *Physis*, II, 1868, p. 55.

"MALE. Elongate, brown, yellow-variegated. Head with some punctures, with two yellow longitudinal fasciae above eyes. Antennae brown. Prothorax cylindrical, laterally more or less unarmed, variegated. Elytra elongate, base black-tuberculate (tubercles squamose, sparse), variegated and with two oblique ashy maculae laterally before middle, apices rounded. Sternum yellow-maculate. Abdomen variegated; legs brown. Length 20 mm.; width 7 mm. Brazil.



"Differs from *Ischiocentra clavata* by squamiform tubercles which cover base of clytra; elytra less convex; claws of procoxae are a little more recurved." (The original description translated).

### CORDITES Dillon and Dillon

*Cordites* Dillon and Dillon, Sci. Publ. Reading Mus., v, 1945, p. x.

Closely related to *Ischiocentra*, differing from it mainly in the transverse front. Moreover, the gena is distinctly elongate, vertical; the lower lobe of eye is smaller and ovate; and the body form is more attenuate.

Moderate to rather large beetles, elongate-ovate, more or less robust, sub-cylindrical; reddish-brown to picceous. Head with front slightly transverse, sides nearly parallel, narrowed from lower margin of eye to mouth; genae elongate, vertical; eye with lower lobe elongate-ovate, not equaling height of gena, usually distinctly shorter than it; antennal tubercles prominent, robust, well separated, in male at apex variously armed, tooth or horn more or less strongly curved outward. Pronotum transverse, cylindrical, very slightly narrower at apex than at base, laterally with a small or feeble tubercle. Scutellum transverse. Elytra with sides gradually and distinctly attenuate apically; basal gibbosity feeble; disk anteriorly granulate or granulate-punctate; humeri prominent, with a projecting tubercle at angle, giving the appearance of being rather hooked, the anterior margin nearly straight, feebly oblique. Prosternum simple, narrow between coxae; mesosternal process at apex emarginate. Legs moderate in length; procoxae unicate in male, tuberculate in female; femora clavate, profemora rugose in male, usually smooth in female; protarsi dilated in male. Antennae elongate, about one and one-half or more times body length in male, in female longer than body; scape robust, clavate, not quite attaining middle of pronotum; third segment nearly straight or feebly arcuate, elongate, distinctly longer than first; rest shorter, tenth and eleventh subequal.

GENOTYPE: *Ischiocentra armillata* Thomson.

#### KEY TO SPECIES

1. Elytra behind middle with a very distinct, broad, dark brown fascia, not attaining suture; tibiae broadly pale basally.....*armillata*  
Elytra with only an indistinct fascia; tibiae not pale annulate.....*modesta*

### *Cordites armillata* Thomson

#### PLATE XVI, FIGURE 4

*Ischiocentra armillata* Thompson, Physis, II, 1868, p. 57.

Most easily recognized by the very distinct, rather broad, feebly oblique, dark brown median fascia of elytra, not attaining suture; the antennae with segments three, four, six, and eight broadly yellowish basally; and the tibiae broadly pale annulate at base.

**MALE.** Elongate-ovate, subcylindrical, rather slender; dark reddish-brown, elytra slightly paler; covered with silver-gray or pale fulvous-gray pubescence, mottled with dark brown or with isolated points of the same color. Elytra at middle with a short, dark brown, oblique band extending from sides to shortly beyond middle of each disk, rarely prolonged posteriorly, internally outlined with white and sometimes preceded by an irregular fascia of white, variable in width. Body beneath, legs, and antennae medium to dark reddish-brown, unevenly pale fulvous-gray pubescent, more or less distinctly mottled with brown; tibiae at base narrowly and at apex broadly dark brown, covered with brownish pubescence, medially very pale, with whitish pubescence; tarsi dark brown, with sparse brownish pubescence, claw segment concolorous; scape and second antennal segment darker than succeeding ones, which are brown pubescent, third and fourth segments on basal three-fifths whitish, covered with pale yellowish pubescence, sometimes sixth, eighth, and tenth similarly pale at base.

Head entirely minutely, densely punctate, with a number of rather coarse, deep punctures interspersed; front at center slightly tumid; eye with lower lobe, small, equal to about two-thirds of genal height; antennal tubercles at apex armed with a short, blunt horn which is curved slightly outwards. Pronotum, anteriorly slightly narrowed, behind middle with a small but distinct, unprocessed tubercle; apical and basal transverse sulcus narrow but deep, straight, lateral oblique ones wanting; disk only faintly uneven, medially behind center an indistinct, rounded callosity, entire surface minutely, densely punctate and with a number of rather coarse punctures intermingled. Scutellum with sides straight, feebly oblique, apex subtruncate, narrowly notched at middle. Elytral apices separately rounded; basal gibbosity distinct, oblique, followed posteriorly by a broad, oblique impression, disk at basal third coarsely, rather densely granulate-punctate, thence moderately and less densely punctate, punctures deep and irregularly spaced to apex. Procoxae internally with a ridge which overlaps the prosternum; femora robust, profemora very robust, at base anteriorly concave, rest of base irregularly rugose; all tibiae rather strongly expanded apically. Fifth sternite slightly longer than fourth, apex truncate. Antennae with the sixth segment attaining elytral apex; third and fourth segments rather robust, third slightly tapering distally, broadly and feebly curved downwards apically, one-third longer than scape.

**FEMALE.** Slightly more robust; antennal tubercles with a short tooth at apex; prosternum broader; procoxae without internal ridge, unarmed anteriorly; profemora not more robust than others, not rugose; fifth sternite one-half longer than fourth, apex slightly emarginate, disk with a feeble triangular impression; antennae only slightly longer than body, the ninth segment nearly attaining elytral apex, scape not rugose, third not tapering apically, rest gradually shorter.

LENGTH 11.5-18 mm.; width 4-6 mm.

*Type locality.*—Brazil.

*Distribution.*—Eastern and southeastern Brazil.

**BRAZIL:** ♀; no locality data; [M.C.Z.]; Mafra, Santa Catharina, March, 1942; (A. Maller); [L. Lacey]. ♀; Hansa Humboldt, S. C., February, 1932; (A. Maller); [L. Lacey]. 2 ♀; Nova Teutonia, December 6, 1938; (Fritz Plauermann); [L. Lacey.] ♂; Nova Friburgo; [M.C.Z.] ♀; Bahia; [M.C.Z.]

**Cordites modesta** Melzer

PLATE XVI, FIGURE 5.

*Ischiocentra modesta* Melzer, Arch. Inst. Biol. São Paulo, IV, 1931, p. 58, pl. 11, f. 8.

Elytra with only a very indistinct, oblique, brownish fascia behind middle; antennal horns of male very short; antennae elongate in both sexes, with four basal segments rather robust.

**MALE.** Elongate-ovate, rather slender, subcylindrical; light reddish-brown, head and disk of pronotum slightly darker, humeri black; entirely covered with not very dense, white and fulvous variegated pubescence, without any distinct maculae, but pubescence of each color often coalesced irregularly into poorly defined patches. Body beneath and legs light to moderately dark reddish-brown, pubescent as above, but with a finely mottled appearance; abdomen slightly paler, pubescence laterally largely pale, often forming a series of streaks each side; tarsi dark brown to piceous, entirely covered with hoary pubescence. Antennae pale or medium yellow-grown, scape darker; first two segments and basal halves of third, fourth, sixth, and eighth sparsely white-pubescent, their apices and remaining segments covered with short, sparse, light brown pubescence.

Head above minutely, rather densely, and finely, sparsely punctate; front minutely, rather densely punctate, a large number of fine punctures each side and on lower portion; gena punctate as front but more rugosely so; eye with lower lobe at least slightly shorter than gena; antennal tubercles armed at apex with a feeble, robust tooth. Pronotum, only feebly narrowed at extreme apex, just behind middle with a very small tubercle; apical transverse sulcus straight, deep, interrupted at middle, basal one distinct only medially, lateral oblique ones obsolete; disk comparatively smooth, medially with three low flat tubercles, one behind center and one each side of middle posterior to apical transverse sulcus, towards each side an indistinct tubercle. Scutellum with sides straight, oblique, apex strongly arcuate. Elytral apices each narrowly rounded; disk rather uneven, basal gibbosity low, oblique, followed by an oblique, broad impression, which sometimes extends along suture to about middle, apical half with a similar, but very indistinct, oblique impression, near extreme base about three irregular transverse rows of fine granules, rest of disk rugosely punctate. Fifth sternite only a little longer than fourth, apex broadly retuse. Metafemora more slender, profemora robust, parallel-sided at base, clavate on apical two-fifths, at middle of upper face strongly impressed, entire basal three-fifths finely rugose. Antennae with sixth segment attaining elytral apex; third segment robust, feebly arcuate, nearly one and three-quarters times as long as first.

**FEMALE.** More robust; front gradually wider above; antennal tubercles less robust, unarmed, more widely separated; prosternum not strongly constricted at middle; procoxae less prominent, with a tubercle anteriorly; all femora feebly clavate, slender, profemora not rugose nor impressed above; fifth sternite one and one-half times as long as fourth, apex feebly rounded, a median impressed line terminating apically in a triangular flattened area; antennae one-fourth longer than body, scape slender, gradually clavate, not rugose.

LENGTH 18.5-19.5 mm.; width 6-7 mm.

*Type locality*.—Itatiaya, 700 m., R. J., Brazil.

*Distribution*.—Southeastern Brazil.

BRAZIL: ♂; ♀; no locality data; [M.C.Z.].

### TRACHYSOMUS Serville

*Trachysomus* Serville, Ann. Soc. Ent. France, iv, 1835, p. 40. Castelnau, Hist. Nat. Col., II, 1840, p. 482 (pars). Buquet, Ann. Soc. Ent. France, (2), x, 1852, p. 349. Thomson, Arch. Ent., I., 1857, p. 384; Class. Ceramb., 1860, p. 43; Syst. Ceramb., 1864, p. 391; Physis, II, 1868, p. 64. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 174 (sep. p. 186). Lacordaire, Gen. Col., IX, 1872, p. 668, 677.

The distinguishing features of the genus are the declivous vertex; the elytra each with a large, globose, basal gibbosity, covered with coarse granules, and at apex on disk, a distinct process; antennae short; scape short, capitate, and arcuate; and the very robust body form.

Moderate to large, elongate-ovate, robust, subcylindrical; reddish-brown to black, densely pubescent. Head with vertex strongly declivous, with a median impressed line; front usually transverse, narrowed below eyes; genae vertical; eye with lower lobe equal in height to gena or shorter than it; antennal tubercles set far down on front, moderately prominent, feebly armed in male, scarcely so in female. Pronotum transverse, more or less cylindrical, slightly wider basally; sides unarmed; disk with four to six small tubercles, with an apical and a basal transverse sulcus. Scutellum transverse. Elytra very gradually attenuate apically, apices separately rounded; at base each with a large, very prominent gibbosity, covered with coarse granules (in *dromedarius* two on each) near apex on disk a small but distinct process directed more or less posteriorly; humeri feebly prominent, multigranulate, sometimes with one granule slightly larger than others. Prosternum simple, gradually widened behind middle; mesosternal process more or less elongate, apex emarginate, truncate or rounded. Fifth variable in relative width, truncate or emarginate at apex in male, emarginate in female and with a triangular median impression. Legs moderate in length; procoxae globose, unarmed or at most with small, obtuse tubercle anteriorly; femora robust, gradually clavate, pro-femora more strongly so; tibiae rather strongly expanded distally. Antennae attaining apical quarter of elytra in male, the middle of elytra in female; scape short, attaining the apex of pronotum, arcuate, more or less capitate apically; third segment cylindrical, straight or slightly arcuate, slightly longer than first; rest gradually shorter; eleventh not elongate.

GENOTYPE: *Lamia fragifer* Kirby, by original monotypy.

#### KEY TO SPECIES

1. Elytra each with two gibbosities, one basal, one before middle  
*dromedarius* (p. 250)
- Elytra each with a single gibbosity, placed at base..... 2
2. Elytra on apical third with a common circular area, outlined with black... 3
- Elytra at apex not with a common circular area..... 4

3. Elytral apical projection feeble, apical circular area largely brownish; head without dark velvety maculae on vertex ..... *hydaspes* (p. 236)  
Elytral apical projection prominent, apical circular area largely whitish; head with three dark velvety maculae on vertex ..... *peregrinus* (p. 237)
4. Vertex without any dark velvety maculae; elytra largely gray pubescent, suffused with rusty brown ..... *camelus* (p. 247)  
Vertex with one or more dark velvety maculae ..... 5
5. Vertex with two dark brown vittae, terminating in a common velvety macula between antennal tubercles; abdomen covered with brown, fulvous, and gray variegated pubescence, sternites immaculate ..... *thomsoni* (p. 248)  
Vertex without vittae, with velvety maculae only ..... 6
6. Vertex with four very small velvety maculae, two each side of median line; basal gibbositities of elytra much less elevated than usual, their granules strongly flattened ..... *buquetii* (p. 239)  
Vertex with two or three velvety maculae ..... 7
7. Elytral pubescence largely hoary-gray, at apex with a common semi-circle of brown behind the protuberances ..... *gibbosus* (p. 245)  
Elytral pubescence dark brown ..... 8
8. Elytra each with a small, narrow, oblique, white macula just anterior to the apical protuberance ..... *fragifer* (p. 243)  
Elytra without a white macula before the apical protuberance ..... 9
9. Vertex with three dark brown velvety maculae, one each side of middle and a median one below between antennal tubercles; elytra with apical protuberance very narrowly outlined with white ..... *mexicanus* (p. 240)  
Vertex with two dark brown maculae, one each side of median line; elytra with apical protuberance broadly margined with white ..... *surdus* (p. 242)

***Trachysomus hydaspes* Dillon and Dillon, spec. nov.**

PLATE X, FIGURE 6.

Closest to *T. peregrinus* in its general color, but is browner, the common circular marking on apical third of elytra is much less distinct; basal gibbositities less strongly elevated, and the apical protuberances are very small; the vertex is entirely without maculae.

FEMALE. Elongate-ovate, robust, subcylindrical, tapering posteriorly; fuscous to black. Head above and front rusty-brown pubescent, feebly variegated with gray; behind isthmus of eyes a very narrow, blackish vitta, sides below this broadly white. Pronotum rusty-brown, feebly variegated with gray, each side of disk with a narrow, blackish vitta continuing the post-ocular one of head and extending onto extreme base of elytra; sides variegated with rusty-brown and white continued onto extreme base of elytra and humeri; below lateral tubercle a fine white vitta from base to apex. Scutellum variegated with whitish, gray, and rusty-brown. Elytra grayish-brown, apical half variegated strongly with white and feebly admixed with rusty-brown; a large, common, nearly circular area covering most of apical third, pale brown in color, narrowly margined with fuscous, especially laterally, with a short fuscous vitta each side of suture, a number of small white patches along each edge of suture. Body beneath fuscous or black, gray and rusty-brown

variegated sterna more gray medially; meso- and metasternal sidepieces dark brown; sternites toward each side with a dark brown vitta, very broad on first sternite, suddenly constricted on second, consisting of dots on remaining sternites, extreme sides of second to fourth sternites maculate irregularly with whitish; all the dark brown area of underside of body and legs has short white hairs interspersed. Legs black, covered with rusty and gray variegated pubescence, irregularly mottled and banded (on femora) with dark brown. Antennae fuscous to black, distally slightly paler; scape variegated with rusty, gray, and gray-brown, remaining segments gray-brown pubescent, narrowly annulate at base with gray, gradually more broadly so from fifth.

Head with front strongly transverse, slightly constricted below eyes, with scattered coarse punctures, without tubercles; genae elongate, narrower above, feebly rugosely punctate; eye with lower lobe oblique, ovate, subequal to gena in height; antennal tubercles feeble, not produced apically. Pronotum transverse, one-half wider than long sides nearly straight, only slightly wider at base than apex; disk with an apical and a basal transverse sulcus, apical one deep, strongly sinuous at middle, basal deep, sinuous, oblique laterally; disk at middle of each side just behind apical sulcus with a short, elongate, narrow tubercle; lateral tubercles wanting, replaced by a cluster of granulate-punctures; sides very uneven. Scutellum transverse; sides straight, slightly oblique; apex distinctly arcuate. Elytra with sides straight, feebly attenuate to apices, which are separately rounded; disk at base with a distinct gibbosity which is roughly granulate over its entire surface, one granule on each gibbosity at base near scutellum is dentiform, disk thence to middle with a few granules, entire disk coarsely, rather densely punctate, punctures somewhat finer apically; near apex toward suture a small flattened protuberance which is directed posteriorly; humeri moderately prominent, granulate and punctate, anterior margin nearly straight, feebly oblique, angle with a slightly larger granule. Prosternum suddenly expanded just behind apex, thence gradually wider basally; mesosternal process moderate in width, apex rounded; metasternum carinate posteriorly on tumid area each side. Fifth sternite feebly emarginate apically, and shallowly, triangularly impressed. Procoxae globose, unarmed; profemora robust, suddenly clavate from basal fourth, not rugose, other femora more gradually clavate, robust, slightly longer. Antennae attaining apical fourth of elytra, slender, slightly fimbriate beneath on four proximal segments, more densely so on third; scape just attaining pronotum, nearly capitate, slightly arcuate; third segment straight, very slightly longer than first; eleventh slightly longer than tenth, with a long curved process at apex.

LENGTH 19 mm.; width 8.5 mm.

*Holotype*.—Female; Rupununi Cattle Trail, between Essequibo and Demerara Rivers, British Guiana, April-May 1920; (G. B. Fox); [A.N.S.P. number 8252].

### **Trachysomus peregrinus Thomson**

PLATE X, FIGURE 7.

*Trachysomus peregrinus* Thomson, Arch. Ent., 1, 1858, p. 387.

Vertex with three dark velvety brown spots in a triangle; elytra on apical third with a distinct, common, circular, whitish area out-

lined with black; abdomen with fourth sternite having a small, distinct, dark brown macula each side of middle.

**MALE.** Elongate-ovate, robust, subcylindrical; fuscous or black. Head creamy-white pubescent, vertex with three black, closely-set maculae arranged in a triangle; front on lower half fulvous and brownish. Pronotum medially light gray and fulvous, a narrow creamy-white vitta anteriorly at middle, either side of disk with two black vittae, internal ones narrow at apex, external ones very fine, not quite attaining apex, sometimes indistinct; sides brownish-fulvous, irregularly maculate with white. Scutellum brownish or fulvous medially, very narrowly margined with black laterally. Elytra grayish-brown pubescent, apical half slightly paler; base around scutellum narrowly margined with blackish, towards humeri with whitish pubescence extending that of sides of pronotum; apical third nearly covered by a large, common, rounded marking, completely outlined irregularly with creamy white, each side with a large lunate black macula extending beneath apical protuberances, which are irregularly marked with white. Body beneath dark reddish-brown to fuscous, grayish-fulvous pubescent, metasternum and metepisternum broadly blackish; abdomen grayish-fulvous pubescent, first sternite on each side broadly maculate with blackish, second with two irregular blackish maculae each side, medially tinged with blackish, fourth sternite with a small, round, black macula either side of middle. Legs fuscous to black, irregularly mottled with brownish, fulvous, and black, with single, short, whitish setae interspersed; tarsal claw segment reddish-brown. Antennae fuscous to black; scape grayish-fulvous pubescent, mottled with black, remaining segments dark brown pubescent; third, fourth, fifth, seventh, ninth, and eleventh segments narrowly annulate basally with grayish, sixth, eighth, and tenth broadly so.

Head with front strongly transverse, narrowed before from lower margin of eye, just below eye with a deep, bisinuous, transverse impression, with a number of coarse, sparse punctures, especially between antennal tubercles and above mouth; genae about as high as broad; eye with lower lobe oblong, subequal in height to gena; antennal tubercles robust, rather prominent, at apex armed with a short, broad tooth. Pronotum transverse, about one-half wider than long, apex distinctly narrower than base, sides strongly and broadly constricted before middle; apical and basal transverse sulci deep, irregular, the anterior one strongly sinuate at middle, the posterior one extending obliquely to middle of each side; disk with median tubercle feebly prominent, divided into two portions by apical sulcus, each side of middle with two larger and several smaller tubercles, and two at middle of each side just behind apical margin; lateral tubercles nearly obsolete. Scutellum transverse; sides feebly arcuate, oblique; apex rather broadly rounded. Elytra only indistinctly narrowed apically, apices each rounded or subangulate; basal gibbosity large, rounded, its sutural walls strongly declivous, its apex flattened, sloping toward humeri, entirely covered with very coarse, irregular granules; disk thence to middle unevenly, feebly granulate and finely punctate, punctures obsolete behind apical third, before apex each elytron with subglobular projection slightly toward suture, its tip covered by dense tufts of pubescence, giving the whole a flattened appearance when viewed above; humeri prominent, anterior margin nearly straight to a small, projecting tubercle, then rounded irregularly, without a distinct external angle. Prosternum narrow at apex, before middle angularly expanded, thence nearly parallel-sided and broader to base; mesosternal pro-

cess elongate, narrow, apex bilobedly emarginate. Fifth sternite about as long as fourth, apex broadly truncate or feebly emarginate. Procoxae globose, anteriorly with a small, obtuse tubercle; femora robust, strongly clavate, metafemora more gradually so, profemora not rugose. Antennae about four-fifths as long as body, shortly fimbriate beneath to fourth segment; scape arcuate, short, capitate on apical half; third segment slightly longer than first, feebly arcuate, fourth and following gradually shorter.

LENGTH 17-21 mm.; width 7.5-9 mm.

*Type locality*.—Brazil.

*Distribution*.—Panama.

CANAL ZONE: ♂; Barro Colorado Island, August, 1939; (J. Zetek); [U.S.N.M.].  
♂; Barro Colorado Island, January 1935; (M. Bates); [M.C.Z.].

PANAMA: ♂; Potrerillos, April 6, 1934; (D. V. Brown); [L. Lacey].

*Remarks*.—No characters could be found on the above specimens to distinguish them from Thomson's rather full description of the species and it is believed that his specimen may have been mislabeled as coming from Brazil.

### **Trachysomus buquetii Thomson**

PLATE X, FIGURE 8.

*Trachysomus buquetii* Thomson, Arch. Ent., 1, 1858, p. 386.

Distinguished by vertex having four very small dark brown maculae, in the form of a square; elytra grayish-brown, the apical prominences yellow-white, basal gibbosities prominent but not so strongly elevated as in most species of the genus, the granules covering them squamose; and fourth sternite of abdomen with a large, transverse, brownish macula at middle.

MALE. Elongate-oval, robust, subcylindrical; piceous or black, covered with rather dark grayish-brown pubescence. Head above hoary, variegated with fulvous; vertex and front largely fulvous, the former with two irregular blackish maculae each side of middle. Pronotum with an indistinct, pale fulvous median vitta; each side of disk a blackish vitta; laterally broadly and indistinctly whitish. Scutellum pale fulvous, narrowly margined laterally with blackish. Elytra fulvous on basal gibbosities, their granules dark brown pubescent, toward humeri at base a whitish mark prolonging that on sides of pronotum, behind middle a broad, indistinct, common, strongly arcuate fascia of pale gray, bordered behind by a narrow, irregular dark brown band; apical projections yellowish-white. Body beneath piceous, grayish-fulvous pubescent, laterally brownish; abdominal first sternite with a large, transverse, dark brown, irregular macula each side, fourth medially with transverse arcuate, brown macula. Legs dark reddish-brown to fuscous, fulvous pubescent, femora and tibiae with two or three dark brown bands; tarsi dark reddish-brown, fulvous pubescent. Antennae dark reddish-brown; scape pi-



ceous, covered with fulvous pubescence, at apex with two indistinct brown bands; remaining segments dark brown pubescent; basal half of sixth, eighth, tenth, and eleventh, and very narrow base on the remaining segments, yellowish.

Head with front transverse, narrowed below from lower margin of eye, broadly concave between antennal tubercles, on each side of middle with a series of three or four transverse, arcuate rugosities or small tubercles, a pair of similar glabrous ones also on clypeus; genae slightly elongate, minutely but roughly alutaceous; eye with lower lobe more or less oblong, slightly oblique, about two-thirds as tall as gena; antennal tubercles slightly robust, rather prominent, minutely dentate at apex. Pronotum strongly transverse, nearly twice as wide as long, sides irregular, broadly but rather feebly constricted before apex which is feebly narrower than base; lateral tubercle broad, feebly elevated, without a distinct process; two transverse sulci narrow, deep, the anterior one running from near coxae, irregular, suddenly sinuous at middle, the basal one broadly arcuate, disk at middle before apical sulcus with a fine elevation, behind it reaching to the basal sulcus a fine impressed line, at middle of each side a pair of prominent conical tubercles, placed obliquely, the outer one more posterior and larger, behind them an oblique series of fine granules extending towards middle of base, before them near apical margin a small but prominent, compressed tubercle. Scutellum slightly transverse; sides straight, feebly oblique; apex arcuate. Elytra slightly narrowed apically; apices each angularly rounded; basal gibbosity rounded, not so strongly elevated as in related forms, covered rather densely with coarse granules, of which one or two on each base are conical, tooth-like; disk behind gibbosity largely smooth, at middle with a transverse series of feeble rugosities, the remaining surface finely punctate, at middle of disk just before apex a small, distinct process densely tufted apically; humeri prominent, rounded, densely covered with coarse granules, none of which are larger or more prominent. Prosternum moderately wide, gradually narrowed anteriorly, before apex suddenly constricted; mesosternal process about as wide as long, gradually tapering posteriorly, apex deeply emarginate; fifth sternite about as long as fourth, apex broadly arcuate. Procoxae globose, with an indistinct tubercle anteriorly; femora short, robust, clavate, the anterior ones shorter. Antennae three-fourths as long as body, slender, finely fimbriate on basal four segments; scape just attaining pronotal apex, strongly arcuate, its base slender, apically subcapitate; third segment distinctly longer than first, arcuate, the following ones gradually shorter.

LENGTH 15 mm.; width 6.6 mm.

*Type locality*.—Brazil.

*Distribution*.—Southern Brazil to northern Argentina.

ARGENTINA: ♂; El Quemado Jujuy, April 1926; (G. L. Harrington); [U.S.N.M.].

### ***Trachysomus mexicanus* Dillon and Dillon, spec. nov.**

PLATE X, FIGURE 9.

? *Trachysomus fragifer* Bates (non Kirby), Biol. Centr.-Amer. Col., v, 1880, p. 124.

Related to *T. fragifer* but vertex with three brown maculae in the form of a triangle; elytral apical prominences narrowly outlined with

white; abdomen largely yellowish-white, the fifth sternite dark brown with an indistinct transverse, narrow whitish fascia, and, except for first and second sternites, without maculation; tarsi dark.

**FEMALE.** Elongate-ovate, robust, subcylindrical; black, dark brown pubescent. Head above with a rather broad, indistinct fulvous vitta at middle which terminates on vertex, between antennal tubercles an indistinct, transverse blackish macula, slightly above this macula and either side of median vitta two small, oblique oval blackish maculae and a small, common, transverse one between antennal tubercles; front variegated with ochraceous, dark brown, and white pubescence. Pronotum with a broad fulvous vitta medially, and either side of this vitta a velvety dark brown one, somewhat irregular or confined shortly on base of each elytron; laterally broadly variegated with whitish and with a short, very narrow, white vitta from apex to just behind middle. Scutellum broadly vittate medially with fulvous, sides narrowly very dark brown. Elytra just behind middle with a very narrow, irregular, dark velvety brown fascia, oblique from suture to sides where it ends in a small, irregular, white macula; along suture behind middle with small, indistinct, white maculae and the elytral prominences at apices very narrowly outlined triangularly with white. Beneath black; sterna thinly fulvous pubescent, laterally irregularly, dark brown pubescent; abdomen very pale orangeish-white pubescent, first sternite with a transverse, very irregular dark brown macula either side, second sternite with one or two very small, irregular, dark brown maculae each side, fifth sternite entirely dark brown pubescent, with a very narrow, transverse white fascia medially. Legs fuscous or black, fulvous or ochraceous pubescent, with scattered white hairs; femora rather broadly fasciate and tibiae bifasciate with dark brown; tarsal claw segment pale yellowish-brown, apical third fuscous. Antennae fuscous or black; scape fulvous or ochraceous pubescent, with scattered white hairs, at apex an indistinct rounded, brown macula; segments four, six, and eight with basal third pale, remaining segments only very narrowly pale.

Head above alutaceous; front transverse, sides slightly narrowed below eyes, surface alutaceous, with scattered, very coarse, deep punctures, either side of middle with a very feebly raised tubercle; genae feebly elongate, slightly narrower just below eyes, surface alutaceous, with fine punctures which are well-spaced; eye with lower lobe subquadrate, subequal to gena in height; antennal tubercles distant, only feebly prominent, produced slightly at apex. Pronotum transverse, base slightly wider than apex, moderately constricted at middle; apical sulcus narrow, deep, much curved, basal sulcus deep, broadly interrupted at middle and oblique laterally; lateral tubercles lacking but with a cluster of granules bearing setigerous punctures; disk with three small, well-elevated tubercles each side, one somewhat lateral just before apical sulcus, another near middle just behind apical sulcus and a third slightly more lateral before basal sulcus. Scutellum slightly elongate; sides straight, feebly oblique; apex more or less acutely rounded. Elytra with sides nearly straight, feebly attenuate, apices each rounded; each elytron at base with a large, well-elevated, granulate gibbosity, extreme base either side of scutellum with two robust teeth which are subacute and are directed upward and slightly posteriorly; basal half of disk with coarse well-spaced punctures, apical half with punctures finer, and at apical fourth with a small process which projects posteriorly

and slightly laterally; humeri feebly prominent, granules not well elevated, anterior margin nearly straight, at angle one granule glabrous and slightly more prominent than rest. Prosternum simple, gradually widened behind middle of procoxae; mesosternal process short, moderately narrow, at apex deeply bilobedly emarginate; fifth sternite slightly longer than fourth, at apex feebly emarginate and triangularly impressed. Legs short; procoxae globose, not armed; femora robust, gradually clavate, all tibiae widened somewhat apically. Antennae much shorter than elytra; scape robust, short, not quite reaching pronotum, more or less capitate, not grooved basally; third segment cylindrical, straight, slightly longer than scape, fourth slightly shorter than third; fifth noticeably shorter than fourth, remaining gradually shorter; slightly fimbriate on segments one to four.

LENGTH 14 mm.; width 5.8 mm.

*Holotype*.—Female; Colima, Colima, Mexico; (Conradt); [U.S. N.M. no. 57211].

### **Trachysomus surdus** Dillon and Dillon, spec. nov.

PLATE X, FIGURE 10.

Very similar to *T. mexicanus* but with two velvety maculae on vertex, one either side of middle; elytral gibbosities a little more prominent, their granules more acute, the apical prominences broadly outlined with whitish; abdomen pale fulvous or ochraceous, the last two sternites dark brown.

MALE. Elongate-ovate, robust, subcylindrical; black, dark brown pubescent. Head above with a rather broad, indistinct, fulvous vitta each side of middle, which terminates on vertex in broad elongate-oval, slightly oblique, black macula; sides grayish. Pronotum with a broad dull fulvous, median vitta, either side of which is a broader, deep brown vitta which is more distinct at base and is interrupted at center; laterally broadly, but indistinctly grayish. Scutellum fulvous medially, sides broadly dark brown. Elytra along suture with many indistinct whitish dots; just behind middle of disk a very narrow, indistinct, black fascia, running obliquely from suture posteriorly to sides, with two or three lines (or rows of dots) extending it on disk towards apex; a small triangle broadly outlined with whitish on each apical protuberance. Body beneath black, dull ochraceous medially, broadly blackish laterally; abdomen dull ochraceous pubescent, with first sternite broadly blackish laterally, second with a small, irregular, blackish macula each side, fourth and fifth brown pubescent with indistinct touches of ochraceous. Legs fuscous, dark brown pubescent, variegated with gray and ochraceous; femora at middle with one broad fascia and tibiae with two fasciae, one very broad medially, one much narrower at apex, all dark brown; tarsal claw segment medium yellowish-brown, extreme apex reddish-brown. Antennae fuscous, brown pubescent, scape with scattered white hairs interspersed and a broad dark brown fascia at apical two-thirds; segments six, eight, and ten with basal third yellowish-brown, remaining segments with only a very narrow portion of base yellowish-brown, the lighter portions of all segments grayish-white pubescent.

Head above minutely alutaceous, vertex with the two black maculae (one either side of impressed line) moderately elevated; front subquadrate, concave between antennal tubercles medially, alutaceous with scattered, coarse, deep punctures, either side of middle, and just above middle, a small tubercle; genae slightly elongate, narrowest just below eye, surface alutaceous with scattered, fine punctures; eye with lower lobe broad, subquadrate, subequal to gena; antennal tubercles moderately prominent, well-separated, only very feebly and obtusely produced at apex. Pronotum transverse, base slightly wider than apex; rather strongly constricted medially; one apical and basal sulcus, apical sulcus sinuate, very deep and interrupted rather broadly medially, basal one very deep, interrupted medially and oblique laterally; each side of disk with three small, well-elevated, rounded tubercles, one lateral just preceding apical sulcus, the second just behind apical sulcus beside median vitta and the third slightly more lateral and just before basal sulcus; unarmed laterally, but with a cluster of setigerous punctate granules. Scutellum transverse; sides straight, only very feebly oblique; apex very broadly rounded. Elytra broad, sides nearly straight, only feebly attenuate; apices each rounded; each elytron at base with a large, rounded, well-elevated callosity covered with strongly elevated granules most of which are rather acute; either side of scutellum at extreme base with two robust teeth which are subacute at apex and directed upward and slightly posterior; entire base with well spaced, very coarse, deep, rounded punctures, posteriorly from basal third they become smaller and obsolete at apex; apical quarter with a small process which projects posteriorly and slightly laterally; humeri feebly prominent, covered with moderate, rounded granules. Prosternum simple, widened behind middle of procoxae; mesosternal process short, sides straight, oblique posteriorly, apex rather deeply emarginate; fifth sternite slightly longer than fourth, subtruncate apically. Legs short; procoxae globose, unarmed; meso- and metafemora more gradually clavate; all tibiae much widened apically; protarsi dilated. Antennae reaching to apical fourth of elytra; scape short, attaining only apical margin of pronotum, nearly capitate on apical half, curved, not grooved internally or externally at base; third segment only slightly longer than scape, about one-fourth longer than fourth which is slightly shorter than scape, succeeding segments gradually shorter; slightly fimbriate on first, third, fourth and fifth segments.

LENGTH 15.5 mm.; width 7 mm.

*Holotype*.—Male, Panama, June 27, 1908; [U.S.N.M. no. 57212].

### **Trachysomus fragifer** Kirby

PLATE X, FIGURE 1.

*Lamia fragifera* Kirby, Trans. Linn. Soc. Lond., XII, 1818, p. 440.

*Trachysomus fragifer* Kirby, Serville, Ann. Soc. Ent. France, IV, 1835, p. 40.

Buquet, Ann. Soc. Ent. France, (2) X, 1852, p. 350. Thomson, Arch. Ent., I, 1858, p. 384. ? Bates, Biol. Centr.-Amer., Col. V, 1880, p. 124.

*Trachysomus santarensis* Bates, Ann. Mag. Nat. Hist., (3), XVI, 1865, p. 174 (sep. p. 186).

Distinguishable by the dark brown pubescence covering the upper surface of the body; each elytron just before the apical projection with a small, elongate, white macula, placed obliquely.

**MALE.** Elongate-ovate, robust, subcylindrical; black, gray-brown to brown pubescent. Head above with a short, fulvous or ochraceous vitta each side of middle, each of which terminates in an oblique black macula, together forming a "V" on vertex; sides and front more or less mottled with gray and fulvous. Pronotum with an oval, gray and fulvous macula placed transversely at middle of basal margin prolonged slightly along median line, apically a vitta of same color strongly bifurcate, the prongs very divergent, on either side of disk an indistinct black vitta, lateral to which is a short, whitish vitta confined to basal half; sides mottled with fulvous and gray. Scutellum fulvous. Elytra behind each basal gibbosity with a rounded, black macula; just behind middle a narrow, blackish fascia becoming white towards sides, running posteriorly from suture to lateral margin, black portion prolonged by several short lines towards apex; apical portion with indistinct, irregular, black maculae, just before each protuberance near suture a single narrow, slightly oblique, very small, white macula. Body beneath fuscous, fulvous pubescent, blackish laterally; abdomen each side of first sternite broadly blackish, on the second with a rather large, round, black macula, fourth and fifth nearly entirely blackish, second and third on either side of middle with a fine, oblique, fulvous line, sometimes present on first also. Legs fuscous, fulvous pubescent, femora and tibiae with two or three irregular dark brown bands; tarsi testaceous, covered with pale pubescence. Antennae piceous; scape brownish on basal half, then with a rather broad, indistinct, darker brown band, apex ochraceous; remaining segments dark brown pubescent, basal third of third segment, half of fourth, one-third of sixth, eighth, and tenth pale pubescent, remaining ones only very narrowly so.

Head with front slightly transverse, sides straight nearly parallel, disk with three tubercles each side of middle, one very small just below antennal tubercles, one elongate, narrow and slightly oblique at middle, and one broad and feebly elevated on clypeus; genae subquadrate, or feebly elongate; eye with lower lobe broad, feebly oblong, subequal or slightly longer than gena; antennal tubercles moderately prominent, only very feebly produced at apex. Pronotum transverse, sides broadly concave (constricted at middle), one apical and one basal sulcus, apical narrow, deep and very sinuous, basal deep, oblique laterally and broadly interrupted at middle; disk with five distinct tubercles, one medially at base, feebly elevated and more or less elongate, one either side of middle, at middle rounded and well elevated, one either side more lateral, which is anterior to apical sulcus. Scutellum slightly transverse; sides nearly straight, feebly oblique; apex subtruncate. Elytra broad, sides nearly straight, feebly attenuate apically; basal half with scattered coarse, deep punctures, apical half with punctures finer and more or less obsolete; disk of each elytron with a large gibbosity covering the greater part of the basal third, gibbosity coarsely and densely granulate; either side of scutellum at base with two long, acute tooth-like granules which are almost vertical; each elytron on apical fourth with a flattened protuberance which projects laterally and slightly posteriorly; humeri only moderately prominent, anterior margin arcuate, entire surface coarsely granulate, granule at angle slightly larger.

Prosternum broad, simple; mesosternal process wide, short and deeply emarginate, sides parallel; metasternum posteriorly each side more or less carinate on swollen area; fifth sternite slightly wider than fourth, very feebly emarginate apically. Procoxae globose, unarmed; femora robust, strongly and abruptly clavate beyond basal third (metafemora slightly less so), profemora very feebly rugose basally; tarsi transverse (protarsi more so). Antennae reaching only to apical fourth of elytra, more or less slender; scape short, reaching just to pronotum, capitate on apical half; third segment very slightly longer than scape; fourth subequal to third; fifth much shorter than fourth, remaining segments gradually shorter.

**FEMALE.** More robust than male; antennal tubercles less prominent, only very feebly produced at apex; fifth sternite about equal to fourth, at apex feebly emarginate and with a very broad, shallow triangular impression; femora slightly less robust, and profemora not rugose basally; antennae nearly equal to length of male's, scape less robust.

LENGTH 13.5-17.5 mm.; width 6-7.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil into Bolivia.

**BRAZIL:** 2 ♂, 2 ♀; no locality; [M.C.Z.]. 5 ♂, 3 ♀; Hansa Humboldt, Santa Catharina, December, 1939, April-May, 1940; (A. Maller); [L. Lacey].

2 ♂, 5 ♀; Rio de Janeiro; [C.M.]. 2 ♂; 3 ♀; Rio de Janeiro, March-April, 1935; (P. Sandig); [U.S.N.M.]. ♂; Londrina, Paraná, July 1934; (A. Maller); [L. Lacey].

**BOLIVIA:** ♀; San José, Dept. LaPaz, Sept. 1925; (G. L. Harrington); [U.S.N.M.].

## **Trachysomus gibbosus** Buquet

### PLATE X, FIGURE 2

*Trachysomus gibbosus* Buquet, Ann. Soc. Ent. France, (2), x, 1852, p. 354, pl. 7, f. 4. Thomson, Arch. Ent., 1, 1858, p. 384.

Vertex with three maculae in a triangle, front with one macula each side of middle dark brown; elytra gray, with a narrow, more or less arcuate, black fascia at apical third, not joined at suture, portion behind apical projections dark brown, with indistinct black markings.

**MALE.** Elongate-ovate, robust, subcylindrical; black. Head fulvous pubescent, along occiput black; vertex with three small, black maculae in a triangle; front on lower half with an irregular, black macula each side; sides grayish-fulvous. Pronotum dark brown medially, the brown bordered each side with a feebly oblique, black vitta, much wider basally; sides grayish-fulvous, with an indistinct, irregular, white vitta. Scutellum brownish pubescent. Elytra grayish pubescent, with a broad border of black around scutellum; base towards sides with white pubescence extending that of sides of pronotum, near humeri a small, arcuate, black macula; on apical fourth a feebly arcuate, narrow, black band which is slightly broader toward suture, with two or three short, linear prolongations extending apically, apices behind the projections brown. Body beneath black, grayish-fulvous pubescent

medially, at sides blackish; abdomen brighter fulvous, with first sternite broadly maculate each side with black, second and third indistinctly black maculate, fourth almost entirely blackish except laterally, fifth without black, second to fifth each with an oblique, whitish streak across the black maculations. Legs fuscous or black, ochraceous pubescent, blotched or banded with black and with scattered, single, white setae. Antennae black; scape ochraceous and gray variegated, mottled with black basally, remaining segments black pubescent, narrowly gray annulate at base, annulations slightly wider from fourth.

Head with front transverse, narrowed below from lower margin of eye, deeply, transversely, irregularly impressed at middle below eyes, medially and above with a number of fine, deep punctures; genae slightly elongate, widest at middle; eye with lower lobe elongate-oblong, nearly as tall as gena; antennal tubercles prominent, produced at apex into a short, parallel-sided horn which projects forwards. Pronotum slightly transverse, apex distinctly (but not strongly) narrower than base, sides sinuous, constricted broadly before middle; apical transverse sulcus deep, sinuous at middle, basal one also deep, curving forward obliquely on each side; disk with median tubercle elongate, nearly obsolete, on each side with two small but distinct tubercles, the anterior one larger, elongate, before anterior transverse sulcus a small, prominent, conical tubercle each side; lateral tubercles minute. Scutellum transverse; sides nearly straight, feebly oblique; apex broadly rounded. Elytra with sides gradually attenuate to apices, which are separately obtusely angulate; basal gibbosity very prominent, subglobose, entirely covered with coarse granules, two basal internal granules prolonged into distinct, erect teeth; disk thence to middle sparsely, irregularly granulate and finely, sparsely punctate, the punctures continuing nearly to apex; each side before apex a distinct, rather globular prominence bearing seven or eight tufts of setae at its tip; humeri prominent, anterior margin indistinctly rounded, no distinct angle present, entirely covered with irregular tubercles. Prosternum gradually widened posteriorly from the narrow apex; mesosternal process elongate, narrow, its apex feebly bilobedly emarginate; metasternum each side with a short carina on swollen area before metacoxae; fifth sternite about equal in length to third, distinctly longer than fourth, apex broadly retuse with a tuft each side. Procoxae globose, unarmed; femora robust, strongly clavate, especially profemora, which are not at all rugose. Antennae about four-fifths length of body, shortly fimbriate beneath to fourth segment; scape slightly arcuate, rather slender, strongly clavate on apical two-fifths, minutely, densely punctate; third segment as long as first, slightly arcuate; fourth distinctly, rest gradually, shorter.

FEMALE. Differs very slightly from male; body a little larger, more robust; antennal tubercles with horns slightly shorter; fifth sternite with a linear impression medially.

LENGTH 20-23 mm.; width 8-8.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

BRAZIL: 7 ♂, 4 ♀; Hansa Humboldt, Santa Catharina, May, October-December, 1939; (A. Maller); [U.S.N.M.—2 ♂; L. Lacey—5 ♂, 4 ♀].

**Trachysomus camelus** Buquet

## PLATE X, FIGURE 3

*Trachysomus camelus* Buquet, Ann. Soc. Ent. France, (2), x, 1852, p. 352, pl. 7, f. 2. Thomson, Arch. Ent., 1, 1858, p. 385.

A large species, covered with gray and rusty-brown pubescence; vertex with two rusty vittae which terminate between antennal tubercles; and pronotum at sides narrowly vittate with white.

**MALE.** Elongate-ovate, very robust, body tapering apically; black, entirely gray pubescent. Head on vertex with a rusty-brown vitta each side of middle which converge between antennal tubercles on front; sides and front suffused with rusty-brown. Pronotum with a broad, rusty-brown vitta at middle of each side of disk, lateral to which are two narrow, whitish vittae which are convergent at base, widely separated at apex; at middle of disk suffused with rusty-brown. Scutellum broadly margined at sides with rusty-brown. Elytra on basal third rather heavily suffused with rusty-brown, the suffusion thence less heavy to apex; disk with scattered, very small, white patches, more concentrated on lateral projection near apex and on humeri. Body beneath black, rusty-brown pubescent, slightly paler medially; abdomen rusty-brown and gray variegated. Legs fuscous to black, with gray and rusty-brown variegated pubescence; femora with apices narrowly white. Antennae with basal segments fuscous, gray and rusty-brown pubescent (from fourth wanting).

Head with median line from occiput to above clypeus, terminating in a fovea; front transverse, widest between eyes, gradually narrowed below, a small, elongate, transverse, sinuous sulcus at middle of sides in line with lower margin of eyes, a few coarse punctures medially; genae elongate, gradually widened below; eye with lower lobe oblique, ovate, equal to two-thirds height of gena, upper lobe with a fine glabrous line continuing it around the antennal tubercles nearly to front; antennal tubercles slightly prominent, very feebly produced at apex. Pronotum transverse, one-half wider than long, only slightly broader at base than at apex, sides feebly arcuate; apical transverse sulcus deep, strongly sinuous at middle, basal one deep, connected with lateral oblique sulci; disk slightly behind middle with a feebly elevated, triangular tubercle, either side of which, slightly more apical, is an elongate, distinct tubercle, with a smaller one postero-lateral to it and a similar one placed still more laterally, anterior to apical sulcus; lateral tubercles very obtuse. Scutellum strongly transverse; sides nearly straight, feebly oblique; apex broadly rounded. Elytra with sides feebly attenuate to apices, which are separately rounded; disk at base with a strong gibbosity, entirely covered (except at base externally) with coarse granules, two basal internal granules prolonged into distinct, erect teeth, disk thence to middle sparsely, feebly granulate, apically finely, rather sparsely punctate; each side near apex a distinct, flattened protuberance which projects laterally and slightly posteriorly; humeri prominent, anterior margin nearly straight, very feebly arcuate, angle with a larger granule which projects laterally and slightly forward. Prosternum strongly expanded behind apex, thence gradually wider posteriorly; mesosternal process elongate, narrow, apex bilobedly emarginate; metasternum each side before coxae with a distinct carina on swollen area; fifth sternite about as long



as fourth, apex subtruncate. Procoxae globose, unarmed; profemora rather abruptly clavate from basal fourth, robust, rugose at base on posterior face, mesofemora less strongly clavate, metafemora more gradually so. Antennae (from fourth segment wanting) with scape feebly arcuate, robust, abruptly clavate from basal third, finely punctate; third segment straight, feebly longer than scape, more densely fimbriate beneath than first segment.

LENGTH 25 mm.; width 11 mm.

*Type locality*.—Cayenne.

*Distribution*.—Northern South America.

BRAZIL: ♂ Santarem: [C.M.].

### **Trachysomus thomsoni** Aurivillius

PLATE X, FIGURE 4

*Trachysomus dromedarius* Buquet (non Voet), Ann. Soc. Ent. France, (2), x, 1852, p. 353, pl. 7, f. 3. Thomson, Arch. Ent., 1, 1858, p. 365.

*Trachysomus thomsoni* Aurivillius, Cat. Col., pars. 74, 1923, p. 345.

A very large species and is unusual for the genus in having the sexes easily distinguished by the differences in length of the antennae; head above with two short, dark brown vittae, coalescent anteriorly in a dark brown macula; elytra grayish-brown, indistinctly mottled with brownish.

**MALE.** Elongate-ovate, very robust, body tapering apically; black, densely covered with gray, fulvous, and brown variegated pubescence. Head with vertex bivittate with black, vittae narrow, converging into a common macula between antennal tubercles on front. Pronotum either side of middle with a broad, brown or black vitta, often denser externally, lateral to which are one or two white vittae, which sometimes cover the lateral tubercles and which are extended onto basal margin of elytra. Scutellum variegated, sides usually blackish. Elytra often with a narrow black area around scutellum, at apical third an irregular, brownish fascia which is wide laterally, suddenly constricted at center of each disk into a line which reaches nearly to suture; at sides behind humeri to near middle the brown predominates strongly; posteriorly behind the fascia on the projection and surrounding area the pubescence is more ashy. Body beneath black, covered with brown, fulvous, and gray pubescence; sterna laterally dark brown. Legs black, covered with brown, fulvous, and gray variegated pubescence; femora usually with a broad, brown band medially, apices narrowly pale; tarsal claw segment grayish on basal two-thirds, apex dark brown. Antennae black, with variegated pubescence, apices dark brown, bases of third and fourth segments narrowly, of fifth and following more broadly, grayish; terminal process of eleventh segment pale.

Head with front transverse, widest between eyes, strongly narrowed to epistoma, sparsely, coarsely punctate, either side of middle a small tubercle, and on clypeus a pair of similar, but smaller and more closely-set tubercles; genae elongate, coarsely, sparsely punctate; eye with lower lobe subquadrate, equal to about two-thirds of

genal height; antennal tubercles feebly prominent, widely separated, placed well down on front, minutely armed at apex. Pronotum very transverse, not quite twice as wide as long, slightly narrower anteriorly, sides nearly straight, lateral tubercles feeble, obtusely produced; an apical and basal transverse sulcus, apical one narrow, deep, irregular, basal one wide and shallow, at about basal third deeper, coalescent with lateral oblique ones; disk slightly uneven, with a feeble median tubercle and on each black vitta each side having about three small tubercles. Scutellum transverse; sides nearly straight; apex broadly rounded. Elytra very broad across humeri, sides feebly attenuate apically; apices separately rounded; entire surface of base coarsely, sparsely punctate, punctures finer apically; disk of each elytron with a large gibbosity covering nearly the entire basal third, the gibbosity coarsely and densely granulate, near scutellum at base two much larger granules which are acute, curved, directed vertically, behind gibbose area sometimes a few rugosities or smaller granules to middle, thence minutely punctate, near apex each side a flattened protuberance which projects laterally and slightly posteriorly; humeri prominent, anterior margin rounded, surface rather densely granulate, the anterior margin with a large tooth which projects laterally or slightly anteriorly. Prosternum rather broad, gradually widened posteriorly; mesosternal process truncate at apex; metasternum posteriorly each side distinctly carinate on swollen area; fifth sternite slightly longer than fourth, emarginate at apex. Procoxae globose, unarmed; femora robust, strongly clavate apically, profemora suddenly and more strongly clavate from basal fourth, transversely rugose on basal fourth of posterior face. Antennae slightly longer than body, tenth segment surpassing elytral apex, slightly fimbriate to fifth segment; scape short, only attaining apex of pronotum, curved, suddenly clavate behind middle; third segment one-eighth longer than first, feebly arcuate; fourth equal to scape, rest shorter, subequal; eleventh slightly longer than tenth.

**FEMALE.** More robust than male; antennal tubercles even less prominent, not produced at apex; fifth sternite at apex bilobedly emarginate, lobes slightly reflexed, with a broad, shallow, triangular impression medially; profemora slightly less clavate, not rugose; antennae much shorter than body, reaching to apical third of elytra, scape less robust, eleventh not elongate.

LENGTH 19-26.5 mm.; width 9-11.5 mm.

*Type locality.*—Colombia.

*Distribution.*—Colombia and Panama.

COLOMBIA: ♂, 2 ♀; Rio Frio, Magdalena, "pruner of ant-tree # 1, emerged July 4-18, 1928"; (P. J. Darlington); [M.C.Z.—2 ♀; U.S.N.M.—♂].

CANAL ZONE: 14 ♂, 20 ♀; Summit, on *Triplaris americana* and *Psidium guajava* March-June, 1930; (Zetek); [U.S.N.M.]. 2 ♂, 2 ♀; Summit, June, prunes *Triplaris cummingiana*, August-September, 1935; (J. Zetek); [U.S.N.M.]. 4 ♂, 12 ♀; Barro Colorado Island, "from girdled trunk of *Triplaris americana*," August-September, 1935; (J. Zetek); [U.S.N.M.]. 2 ♀; Barro Colorado Island, May, 1928; [U.S.N.M.]. ♀; Ancon; (A. H. Jennings); [U.S.N.M.]. ♀; Bas Obispo, March 29, 1923, injuring Guayaba trees; (Zetek); [U.S.N.M.]. ♂, 2 ♀; Barro Colorado Island, in branches of *Triplaris cummingiana*; (Zetek); [U.S.N.M.]. ♀; Barro Colorado Island; (J. W. Cooper); [M.C.Z.].

PANAMA: ♀; Tabogal, February 17, 1912; (Augustus Busck); [U.S.N.M.]. 3 ♀; Las Sabanas, Panama City, March 20, 1926, in Guayaba; (Zetek); [U.S.N.M.].

**Trachysomus dromedarius** Voet

PLATE X, FIGURE 5

*Lamia dromedaria* Voet, Cat. Col., II, 1778, p. 10, pl. 8, f. 29.*Trachysomus elephas* Buquet, Ann. Soc. Ent. France, (2), x, 1852, p. 351, pl. 7, f. 1.  
Thomson, Arch. Ent., I, 1858, p. 385.*Trachysomus dromedarius* Voet. Aurivillius, Cat. Col., pars. 74, 1923, p. 345.

At once distinguished by each elytron having two large gibbosities, one at base and another just at the middle; the general rusty-red coloration, and the pale markings of bright yellow.

**FEMALE.** Elongate-ovate, robust, subcylindrical; reddish-brown; entirely covered by dense, bright rusty pubescence. Head on vertex with three blackish maculae, the median one strongly elongate, triangularly widened below, the other two more posterior, one on each side, ovate. Pronotum medially with three deep yellow maculae in a straight line, small one at apex and at base, a larger one at middle; laterally with a bright yellow vitta, narrowly margined above with blackish. Scutellum at sides narrowly margined with blackish. Elytra on apical half with a common, elongate triangular, paler area, margined anteriorly on each side with a narrow, slightly oblique, black fascia, which in turn is margined at extreme sides with pale yellow. Body beneath dark reddish-brown to fuscous, bright rusty pubescent, laterally (except abdomen) darker; abdomen with first sternite laterally broadly blackish, remaining sternites with irregular, black maculae scattered over entire surface. Legs dark brown to fuscous, rusty-brown pubescent, femora broadly banded medially, tibiae each with two bands of blackish; tarsi yellowish, apex of claw segment darker. Antennae dark reddish-brown to fuscous; scape bright rusty pubescent, irregularly mottled with blackish, remaining segments dark brown pubescent, third, fourth, fifth and alternating segments narrowly yellowish annulate at base, sixth, eighth, and tenth broadly so.

Head with front transverse, narrowed below from lower margin of eye, surface irregular, a small tubercle each side above clypeus and a similar one each side of clypeus, coarsely, irregularly punctate; gena elongate, vertical; eye with lower lobe oblong, about four-fifths as tall as gena; antennal tubercles feebly prominent, armed with a short, broad tooth at apex. Pronotum strongly transverse, one-half wider than long, sides irregular, nearly straight, slightly narrowing apically, lateral tubercles small but distinct, obtuse; apical and basal transverse sulci deep except medially, anterior one sinuous, basal one irregular, extending obliquely laterally to middle of sides; disk with a very broad, triangular tubercle medially, each side with two conical tubercles, of which the posterior one is more distinct, another conical tubercle near anterior margin sublaterally. Scutellum transverse, sides almost straight, oblique, apex broadly arcuate. Elytra feebly narrower posteriorly, each apex obtusely angulate; each elytron with two discal gibbosities, one on base, rather triangular, the second elongate, slightly oblique near middle, both covered with coarse granules, the anterior one broadly smooth basally, with only two dentiform granules, rest of disk nearly smooth, near apex laterally with a broad, flattened process, which is bifurcate and tufted at its tip; humeri prominent, anterior margin

straight, with a large, projecting tubercle, thence rounded and multituberculate. Prosternum gradually narrowed anteriorly, before apex more strongly so; mesosternal process elongate, narrow, apex bilobedly emarginate; fifth sternite a little longer than fourth, apex feebly emarginate, broadly, indistinctly, triangularly impressed. Procoxae globose, unarmed; femora robust, very strongly clavate, metafemora more feebly so. Antennae nearly as long as body, feebly and finely fimbriate on third and fourth segments; scape slender, strongly capitate on apical half, arcuate, short; third segment distinctly longer than first, arcuate; fourth about as long as first, rest shorter, subequal.

LENGTH 19-22 mm.; width 8-10 mm.

*Type locality*.—"Brazil".

*Distribution*.—Brazil.

BRAZIL: 2 ♀; no locality data; [A.N.S.P.—1; M.C.Z.—1].

### CYDROS Pascoe

*Cydros* Pascoe, Trans. Ent. Soc. London, (3), v, 1866, p. 285. Lacordaire, Gen. Col., ix, 1872, p. 668, 684.

*Trachytoxus* Thomson, Physis, ii, 1868, p. 72.

Related to *Trachysomus* in the sculpturing of elytra, in the antennal tubercles placed low on front, in the shape of scape, and in the presence of tufts on the sides of the abdomen. It differs from it in the pronotum being wider anteriorly than at base; elytra with basal gibbosity small; and the antennae strongly shortened.

Small, elongate-oblong, rather robust, cylindrical; fuscous. Head with front about as high as wide, strongly narrowed below eyes; eye with lower lobe rhomboidal, small; antennal tubercles widely separated, placed low on front, feebly elevated, minutely dentate at apex in female. Pronotum transverse, strongly but gradually elevated anteriorly, apex slightly wider than base, disk uneven, sides nearly straight, unarmed. Scutellum transverse. Elytra with sides broader behind middle, apices separately rounded; at base a small but prominent gibbosity, which is covered by coarse granules, disk along side coarsely rugose and punctate, near apex with tufts and feeble elevations; humeri feebly prominent, anterior margin straight, not oblique. Prosternum simple, broad as base, narrower anteriorly; mesosternal process elongate, apex emarginate at middle. Fifth sternite in female slightly longer than fourth, impressed medially. Legs short; procoxae unarmed in female; femora robust; strongly clavate. Antennae in female one-half length of body, sparsely fimbriate beneath on the first four segments; scape slender, short, only attaining apex of pronotum, arcuate; third as long as first, feebly arcuate; fourth more than half as long as third, rest short, subequal, moniliform.

GENOTYPE: *Cydros leucurus* Pascoe, by monotypy.

**Cydros leucurus** Pascoe

PLATE X, FIGURE 11

*Cydros leucurus* Pascoe, Trans. Ent. Soc. London, (3), v, 1866, p. 235, pl. 20, f. 5.  
Lacordaire, Gen. Col., ix, 1872, p. 684.

*Eudesmus scabrosus* Buquet, ms.

*Trachytoxus scabrosus* Thomson, Physis, II, 1868, p. 72.

Easily recognized by the following characters: elytra white on apical third, just before white area with three or four tufts of colored hairs; the pronotum elevated before when viewed from side; and by the short antennae, of which the apical segments from fifth more or less moniliform.

FEMALE. Elongate-oblong, rather robust, cylindrical; fuscous, densely covered with brown pubescence. Head above variegated with ochraceous, each side of middle anteriorly with a more or less triangular, dark brown macula, behind eyes broadly white; front and genae white, strongly variegated with ochraceous and dark brown. Pronotum largely brown, variegated with ochraceous and with dark brown maculae; medially with a broad, white vitta which becomes ochraceous anteriorly. Scutellum mostly white. Elytra brown pubescent, variegated with ochraceous, the latter color brighter and more concentrated broadly along suture and interspersed with several white maculae; apical third densely white tomentose, preceded by four long tufts of ochraceous hairs, tipped with dark brown. Body beneath fuscous, white pubescent medially, becoming densely white tomentose laterally; abdomen white pubescent, laterally a dark reddish-brown, triangular macula occupying the sides of first and second sternites jointly and extending onto third, third and fourth sternites each with five white maculae, two marginal, two submarginal, and an indistinct one medially, the marginal ones strongly tufted. Legs reddish-brown, middle of femora, apex of tibiae, and apices of first two segments of tarsi fuscous, the claw segment paler; entire leg white pubescent, variegated with ochraceous and brown. Antennae rather dark reddish-brown, first and fourth segments and basal half of third much paler; fulvous pubescent, first and second segment hoary variegated, scape annulate with dark brown, entire fourth segment and bases of third and eighth white pubescent, apex of third brownish.

Head with front each side of middle having a feeble elevation, minutely, densely punctate and with a number of rather coarse, deeply impressed punctures, especially below the antennal tubercles; genae elongate, vertical, minutely, densely punctate; eye with lower lobe about two-thirds as high as gena. Pronotum with apical transverse sulcus deeply sinuous at middle, subobsolete toward sides, basal sulcus deep, except medially, coalescent with the irregular, lateral oblique ones; disk very uneven, except at middle, each side tumid and multituberculate, a small tubercle on apical margin at middle of each side. Elytra at extreme base with a large, conical tubercle before basal gibbosity; disk on anterior two-thirds toward sides very coarsely rugose and sparsely, deeply punctate, rest of disk smooth, at apical two-thirds a band of four unequal tufts of long hairs, and more apical an elongate, feeble elevation

followed by a larger, more distinct, obtuse, conical one; humeri at angle with a scarcely visible tubercle.

LENGTH 12 mm.; width 4.5 mm.

*Type locality*.—Sta. Marta, Colombia (*leucurus*); Cayenne (*scabrosus*).

*Distribution*.—Extreme northern portion of South America.

COLOMBIA: ♀; Seville, Magdalena, January 12, 1929; (P. J. Darlington); [M.C.Z.].

*Remarks*.—Lacordaire states that *C. scabrosus* Thomson differs from the foregoing in being "more straight . . . , more cylindrical, and is not to be united with it." The only differences the present writers could find from Thomson's description is in the genae and sides of prothorax being yellow pubescent instead of white, and the form is stated to be "parallel". Whether these distinctions are real or due to loose phraseology can only be determined by examination of the type or material from the type locality. Thomson's original description may be translated as follows:

"Brown, uneven, parallel; head anteriorly ochraceous variegated, occiput with two velvety black maculae; genae yellow pubescent. Prothorax uneven, disk tuberculate, unarmed, laterally below broadly yellow pubescent. Elytra at base bispinose and thence coarsely bituberculate, disk medially concave; at apical third crested, apices white pubescent. Abdomen white pubescent. Legs black-brown. Length 12 mm.; width 4.5 mm."

### CACOSTOLA Fairmaire and Germaine

*Cacostola* Fairmaire and Germaine, Ann. Soc. Ent. France, (3), VII, 1859, p. 527.

Bates, Ann. Mag. Nat. Hist., (3), XVII, 1866, p. 31 (sep. p. 201). Lacordaire, Gen. Col., IX, 1872, p. 668, 687.

Distinguished by the small, elongate, slender, parallel-sided form of body; elytra and pronotum usually with pale vittae; antennal tubercles well-separated, very prominent, armed with an erect tooth in both sexes; eye with lower lobe large; antennae with third segment sometimes curved, the fourth often longer than third; legs short; and the mesosternum elongate before the process.

Small, or moderately small, elongate-oblong, slender, cylindrical; reddish-brown to fuscous, usually with pale vittae on elytra and pronotum. Head distinctly punctate above and on sides, with a median impressed line from occiput to clypeus or epistoma; front subquadrate, slightly transverse or slightly elongate, feebly narrowed below eyes; eye with lower lobe and one-half to two times height of gena (except in *ornata*), elongate-ovate or elongate-oblong; antennal tubercles very prominent, well separated, in male with a distinct, erect, robust process, in female tooth shorter. Pronotum at least slightly transverse, base and apex usually subequal, sometimes apex is wider; disk usually declivous behind middle, coarsely

punctate but without any other distinct sculpturing; transverse sulci feeble; sides unarmed or minutely armed. Scutellum variable in shape. Elytra more or less parallel-sided, feebly attenuate apically, apices separately rounded; disk with a feeble basal gibbosity, coarsely punctate, especially basally; humeri slightly prominent, angle either rounded or with an obtuse tubercle, anterior margin arcuate, oblique. Prosternum simple, widened basally; mesosternum elongate before the process, which is narrow, parallel-sided, apex broadly rounded or subtruncate. Fifth sternite at least as long as fourth, apex emarginate, in female with a median triangular impression. Legs short; procoxae globose, more or less unarmed; femora short, robust, clavate, in male profemora finely rugose basally; metatibiae sometimes swollen in male. Antennae one and one-fourth times length of body in male, equal to body length or slightly longer in female; scape short, attaining at least apical quarter of pronotum, robust, gradually clavate from base; third segment slightly longer than scape, arcuate or nearly straight; fourth segment usually as long or longer than third, rest shorter, except eleventh in males, which is slightly longer than tenth.

GENOTYPE: *Cacostola vagelineata* Fairmaire and Germaine, by monotypy.

## KEY TO SPECIES

1. Pubescence rosy-ashy and brown ..... *vagelineata* (p. 255)  
 Pubescence not roseate ..... 2
2. Pronotum with lateral tubercles prominent ..... *flexicornis* (p. 261)  
 Pronotal tubercles minute or wanting ..... 3
3. Pronotal disk transversely rugose ..... *rugicollis* (p. 263)  
 Pronotal disk not rugose, simply punctate ..... 4
4. Elytra with a fine carina behind humerus along sides of disk to middle ..... 5  
 Elytra without a carina ..... 7
5. Gena elongate, subequal in height to lower ocular lobe; front entirely covered with fulvous and white variegated pubescence ..... *ornata* (p. 255)  
 Gena not or feebly elongate, distinctly shorter than lower lobe of eye; front not fulvous and white variegated ..... 6
6. Eye with lower lobe twice the height of gena; front gray and dark brown pubescent ..... *nitida* (p. 258)  
 Eye with lower lobe only one and one-third times the height of gena; front entirely dark fulvous pubescent ..... *zanao* (p. 256)
7. Elytra pale testaceous, tessellated with fuscous or dark brown ..... 8  
 Elytra not pale testaceous nor tessellated with darker ..... 9
8. Antennae distinctly annulated from third segment; elytra without a dark brown sutural vitta ..... *braziliensis* (p. 265)  
 Antennae very indistinctly annulated; elytra with a dark brown sutural vitta to behind middle ..... *clorinda* (p. 266)
9. Elytra on basal half with distinct pale vittae ..... 11  
 Elytra on basal half without pale vittae or with only poorly defined ones ..... 10
10. Eye with lower lobe two and one-half times height of gena; gena strongly transverse ..... *variegata* (p. 260)  
 Eye with lower lobe one and two-thirds times height of gena; gena at least as high as wide ..... *grisea* (p. 268)

11. Gena elongate; eye with lower lobe only slightly taller than gena  
*leonensis* (p. 259)  
 Gena transverse; eye with lower lobe at least twice the height of gena . . . . . 12
12. Pronotum with an ashy vitta each side of middle which coalesce at base to form an indistinct 'V' . . . . . *fusca* (p. 263)  
 Pronotum without a V-shaped marking . . . . . 13
13. Elytra each with internal white vitta terminating at apical one-third; front with a fulvous 'V' each side of middle; antennae distinctly annulate  
*simplex* (p. 262)  
 Elytral internal vittae nearly attaining apex; front without fulvous V's; antennae indistinctly annulate . . . . . *sirena* (p. 267)

### ***Cacostola vagelineata* Fairmaire and Germaine**

*Cacostola vagelineata* Fairmaire and Germaine, Ann. Soc. Ent. France, (3), VII, 1859, p. 527.

"Elongate, parallel, rather bright rosy-brown, with short pubescence of same color. Head covered with rosy-ashy pubescence, antennal tubercles prominent, making head above appear sulcate; before a short longitudinal sulcus. Antennae a little shorter than body, third segment slightly shorter than fourth. Pronotum as wide as head, sides parallel, but a little angulate and sinuate before base; punctation rather seriate, indistinct beneath pubescence; at middle a line and at sides a band of ashy-rose. Elytra wider than pronotum, elongate, parallel, only narrowed at apex which is obtuse; with seriate punctation and a longitudinal band of gray pubescence; suture slightly elevated, grayish. Beneath black-brown, with touches of ashy-rose pubescence. Legs very short, bright rosy-brown. Chile."

The above is a translation of the original description; none of this species was encountered.

### ***Cacostola ornata* Fleutiaux and Sallé**

PLATE XI, FIGURE 1

*Cacostola ornata* Fleutiaux and Sallé, Ann. Soc. Ent. France, (6), IX, 1899, p. 470, pl. 8, f. 19.

The antennae with basal halves of segments four, six, eight, and ten ashy-pubescent; the third arcuate, the fourth segment very feebly longer than third; body above with fulvous, white, and brown pubescence; front entirely covered with fulvous and white variegated pubescence; the genae elongate, subequal in height to eye; and humeri followed by a fine carina to near middle of clytra will serve to distinguish this form.

**MALE.** Elongate-oblong, cylindrical, slender; brown. Head white pubescent, variegated with brownish and pale yellow. Pronotum, scutellum, and elytra brown pubescent, pronotum with five whitish vittae, one medially, very narrow, two either side strongly lateral slightly wider. Elytra each with about four narrow, longitudinal, whitish vittae from humeri to apex, these more or less coalescent on



base and apex, interstices between vittae more or less variegated with pale yellowish pubescence; just behind middle an indistinct, more or less oblique (from sides to suture) fascia of dark brown which does not interrupt the longitudinal vittae. Beneath dark reddish-brown, thinly clothed with variegated white and pale yellowish pubescence, on abdomen this is condensed to form a broad vitta either side. Legs reddish-brown, dark brown pubescent, feebly variegated with whitish. Antennae reddish-brown, except basal half of segments four, six, eight, and ten which are paler; scape with variegated brown, yellow and white pubescence, segments three, five, seven, nine, and eleven brown pubescent with only a very small portion at base ashy, remaining segments brown with basal halves ashy.

Head above coarsely punctate; front elongate, narrowed abruptly below eyes, disk coarsely, sparsely punctate; genae elongate, narrow, surface smooth with only a few coarse punctures laterally; eye with lower lobe small, ovate, about one-third less in height than gena; antennal tubercles moderately prominent, well separated, at apex only feebly produced. Pronotum slightly transverse, base feebly narrower than apex, sides feebly arcuate, unarmed; apical sulcus very feeble, basal sulcus wide, shallow, and oblique laterally; disk declivous basally; surface with sparse coarse punctures. Scutellum transverse, sides straight, oblique, apex subtruncate. Elytra gradually tapering to apices which are separately rounded; each elytron at base subgibbose; surface to middle with coarse, well-spaced punctures, from there punctures finer, obsolete at apex; humeri prominent, anterior margin arcuate, strongly oblique, at angle with a large, obtuse tubercle, from angle nearly to middle along sides of disk a fine glabrous carina. Prosternum simple, narrow, gradually widened behind; mesosternal process narrow, sides parallel, apex subtruncate; fifth sternite about as long as fourth, at apex subtruncate. Procoxae globose, unarmed; femora strongly clavate, profemora more robust; metatibiae somewhat dilated, and protarsi feebly dilated. Antennae about one and one-half times body length, slender; scape robust, gradually clavate, not quite attaining middle of pronotum; third segment one-fourth longer than scape, cylindrical, feebly sinuate; fourth segment feebly longer than third; remaining segments gradually shorter; fimbriate slightly on third and fourth segments and very sparsely so on remainder.

**FEMALE.** More robust; clytra less attenuate; antennal tubercles more widely separated; fifth sternite about one-fourth longer than fourth, at apex broadly emarginate, shallowly, triangularly impressed; antennae not quite body length, scape less robust.

LENGTH 7.5-11 mm.; width 2.25-3 mm.

*Type locality.*—Guadeloupe and Grand-Terre.

*Distribution.*—Guadeloupe and Grand-Terre.

GAUDELLOUPE: ♂; ♀; Gourbeyre; [A.M.N.H.—♂; U.S.N.M.—♀].

### ***Cacostola zanoa* Dillon and Dillon, spec. nov.**

PLATE XI, FIGURE 2.

Somewhat related to *C. ornata* in having a fine carina behind humeral angle but the front is entirely covered with deep fulvous

pubescence; antennae with bases of segments six, eight, and ten pale but without hoary annulation, third segment feebly arcuate, fourth distinctly longer than third; gena subquadrate; and eye with lower lobe more than twice genal height.

**FEMALE.** Elongate-oblong, slender, cylindrical; head and pronotum dark reddish-brown, elytra paler. Head deep fulvous pubescent. Pronotum bright brown pubescent with five pale fulvous vittae, one medially, narrow, widest basally, two each side, wider and more or less coalescent basally. Scutellum sparsely pale fulvous. Elytra dark brown pubescent, each with two narrow, white vittae, more or less coalescent basally, broadly bordered with fulvous, and reaching to behind middle; the fulvous borders continued and a few shorter vittae of the same color on the apical portion; a narrow, dark brown, glabrous line from humerus to middle. Beneath reddish-brown, sparsely fulvous pubescent, sterna medially grayish; abdomen laterally more or less broadly, irregularly, whitish vittate. Legs reddish-brown; femora and tibiae above brown pubescent, below yellowish-gray; tarsi thinly brownish pubescent. Antennae reddish-brown, except basal third of segments six, eight, and ten which are much paler; scape bright fulvous pubescent, remaining segments pale brownish pubescent, except for basal third of segments six, eight, and ten which are grayish pubescent.

Head above finely alutaceous and with coarse, deep, well-spaced punctures; front elongate, sides slightly widened to lower edge of eye, then feebly but distinctly narrowed, surface with coarse, deep, well-spaced punctures; genae transverse, deeply, coarsely punctate; eye with lower lobe long, oblong-ovate, more than twice genal height; antennal tubercles moderately prominent, distant, at apex with a very short, blunt tooth. Pronotum feebly transverse; sides straight, very minutely, obtusely tubercled, base and apex subequal; apical sulcus obsolete, basal sulcus wide, shallow, oblique laterally; disk only feebly declivous basally, entire surface with well-spaced, coarse, deep punctures. Scutellum slightly transverse, sides straight, feebly oblique, apex subtruncate. Elytra with sides straight, subparallel to behind middle, thence gradually attenuate to apices which are separately rounded; each elytron at base with an elongate, feeble gibbosity; basal half with well-spaced, coarse, deep punctures, thence to apex punctures finer and less distinct; from humeri to middle an irregular, shining carina; humeri prominent, anterior margin strongly arcuate and oblique, angle with a large obtuse tubercle. Prosternum simple, gradually widened behind; mesosternal process short, narrow, sides parallel, apex subtruncate; fifth sternite at apex emarginate, and with a shallow, triangular impression (abdomen badly damaged). Procoxae globose, unarmed, femora strongly clavate, robust; protarsi feebly dilated. Antennae as long as body; scape attaining apical fourth of pronotum, more or less cylindrical, feebly clavate and arcuate; third segment straight, slightly longer than scape, very feebly sinuate; fourth indistinctly longer than third, remaining segments shorter; shortly and feebly fimbriate on third and fourth segments.

LENGTH 11.5 mm.; width 3 mm.

*Holotype*.—Female; Prov. del. Sara, Bolivia; (Steinbach); [C.M.].

***Cacostola nitida* Dillon and Dillon, spec. nov.**

PLATE XI, FIGURE 3.

Head above more densely punctate than in *C. zanoa*; genae feebly elongate; antennal tubercle projection larger; humeral tubercle more distinct; basal half of elytra less roughly and densely punctate; prosternum broader; the carina behind humeral angle very fine, hairlike; antennae distinctly hoary-annulate on fourth, sixth, and eighth segments, third segment nearly straight, fourth segment distinctly longer than third; eye elongate-ovate, twice genal height; and gena subquadrate.

**FEMALE.** Elongate-oblong, slender, cylindrical; head fuscous, pronotum and elytra fuscous and dark reddish-brown. Head thinly clothed with gray and dark brown pubescence, an indistinct and irregular median vitta, margin of upper lobe of eyes, and a few indistinct maculae on front, fulvous. Pronotum dark brown pubescent, a very narrow, indistinct vitta of fulvous medially, laterally two broad whitish vittae separated by a very narrow fulvous line. Scutellum pale yellowish-gray pubescent. Elytra dark brown pubescent, from humerus two or three narrow, white vittae (these joined on humeri) narrowly and irregularly margined with pale fulvous, reaching to behind middle, remainder and extreme sides of elytra irregularly and indistinctly fulvous vittate. Beneath dark reddish-brown; prosternum pale fulvous pubescent; mesosternum gray medially and fulvous laterally; metasternum gray medially, dark brown and fulvous variegated laterally; abdomen dark brown pubescent, variegated with gray and fulvous, this latter pubescence forming two rows of irregular and indistinct maculae either side. Legs reddish-brown; femora and tibiae above brown and fulvous variegated, beneath gray; tarsi thinly yellowish-gray.

Head above coarsely, rather densely punctate; front feebly transverse, sides slightly widened to below eyes, thence distinctly, but shortly narrowed; surface coarsely but not closely punctate; genae feebly elongate, coarsely, densely punctate; eye with lower lobe broadly oblong (feebly ovate), about one-third longer than gena; antennal tubercles prominent, distant, at apex with a robust, distinct tooth. Pronotum feebly transverse; apex very little narrower than base; sides straight, subparallel, minutely tubercled; apical culcus very feeble, basal sulcus very shallow, broad, oblique laterally; disk only slightly declivous basally, surface finely punctate, with coarse, well separated punctures over entire disk. Scutellum feebly transverse; sides straight, strongly oblique, apex subtruncate. Elytra with sides slightly widened behind middle, thence broadly rounded to apices which are separately rounded; humeri prominent, anterior margin strongly arcuate, very oblique, a small, rounded tubercle at angle; each elytron subgibbose basally; basal half with coarse, not deep, well-separated punctures; thence to apex punctures finer but still distinct. Prosternum simple, broader, gradually widened behind; mesosternal process narrow, sides straight, parallel, apex truncate; fifth sternite as long as fourth, at apex broadly emarginate, and with a broad, shallow, triangular impression. Procoxae globose, unarmed; femora robust, strongly clavate; protarsi feebly dilated. Antennae about as long as body (all from fifth missing); scape robust, cylindrical,

feebly clavate, attaining basal quarter of pronotum; third segment cylindrical, nearly straight, slightly longer than scape; fourth distinctly longer than third; remaining segments gradually shorter; moderately fimbriate on third segment, slightly on fourth, fifth, and sixth.

LENGTH 9 mm.; width 2.5 mm.

*Holotype*.—Female; Prov. del Sara, Bolivia; (Steinbach); [C.M.].

### ***Cacostola leonensis* Dillon and Dillon, spec. nov.**

PLATE XI, FIGURE 4.

Closely related to *C. ornata* but differs in the body color being dark reddish-brown or piceous; front nearly entirely fulvous pubescent; eye distinctly taller than gena, which is elongate; antennae with basal halves of segments four, six, eight, ten, and eleven pale and hoary pubescent, third feebly curved, fourth segment equal in length to third; and elytra without a fine carina behind humeral angle.

FEMALE. Elongate-oblong, cylindrical, slender; head and pronotum piceous or reddish-brown, elytra dark reddish-brown. Head fulvous pubescent; antennal tubercles, a small macula either side of middle on front, epistoma, and eyes with a narrow margin, white. Pronotum thinly fulvous pubescent, with five white vittae, one medially, very narrow, more or less interrupted on disk, two either side, broader. Scutellum fulvous pubescent. Elytra fulvous pubescent, either side of suture a narrow, dark brown vitta extending from scutellum to apex, attenuate apically, each elytron with three or four narrow, white, longitudinal vittae, these more or less coalescent apically and basally; behind middle a narrow, dark brown fascia, oblique from side to suture, but not interrupting the longitudinal white vittae. Beneath reddish-brown, fulvous pubescent; abdomen each side with two very narrow, irregular, white vittae. Legs dark reddish-brown, variegated with white and fulvous. Antennae reddish-brown, except basal half of segments four, six, eight, ten, and eleven which are much paler, scape on basal three-quarters white and fulvous variegated, extreme base of segments three, five, seven, nine and basal half of four, six, eight, ten, and eleven gray, remainder of segments brown pubescent.

Head above coarsely, sparsely punctate; front elongate, sides straight to lower margin of eyes, then gradually narrowed, surface with scattered, coarse punctures; genae narrow, elongate, surface with a few coarse punctures; eye with lower lobe oblong-ovate, slightly longer than gena; antennal tubercles moderately prominent, very feebly produced at apex. Pronotum feebly transverse; apex slightly wider than base, sides nearly straight, unarmed; disk declivous behind middle, apical sulcus obsolete, basal one shallow, oblique laterally, surface coarsely, somewhat rugosely punctate. Scutellum transverse, sides straight, feebly oblique, apex broadly rounded. Elytra feebly widened behind middle, thence curved to apex, apices separately rounded; base of each elytron subgibbose, to behind middle with coarse well-spaced punctures, thence to apex punctures finer and obsolete; humeri moderately prominent, anterior margin arcuate, oblique, angle rounded, not followed by a carina. Prosternum simple, widened behind; mesosternal process narrow, sides straight,

apex truncate; fifth sternite slightly longer than fourth, at apex feebly emarginate and with a broad, shallow, triangular impression. Procoxae globose; femora robust, strongly clavate. Antennae as long or slightly longer than body; scape robust, gradually clavate, not attaining middle of pronotum; third segment cylindrical, feebly curved, slightly longer than scape; fourth equal to third; remaining segments gradually shorter, except eleventh which is slightly longer than tenth; slightly fimbriate on third, fourth, and fifth segments, very feebly fimbriate on remainder.

LENGTH 9-11 mm.; width 2-2.75 mm.

*Holotype*.—Female; Coamo Springs, Puerto Rico, April 9, 1930; [A.M.N.H.].

*Paratype*.—Female; Coamo Springs, Puerto Rico; November 30, 1929; (S. B. Danforth); [U.S.N.M.].

### ***Cacostola variegata* Dillon and Dillon, spec. nov.**

PLATE XI, FIGURE 5.

Recognizable by the head having an indistinct brownish vitta each side of median line, the front entirely ashy except for feeble brownish variegation; pronotum entirely ashy, with a broad, brown vitta each side of middle; elytra pale brownish pubescent, variegated with ashy, without distinct vittae but with indistinct ones at base and apically; antennae with third segment feebly arcuate, fourth slightly longer than third, segments from fourth indistinctly annulate at base; gena transverse; and eye elongate-ovate, nearly two and one-half times as tall as gena.

**MALE.** Elongate-oblong, slender, cylindrical; medium to dark reddish-brown, the elytra slightly paler; sparsely covered with ashy pubescence. Head above with an indistinct brown vitta each side of median line and more or less variegated with the same color; front ashy pubescent, sparsely variegated with brown. Pronotum ashy, except for a broad, brownish vitta each side of middle. Scutellum ashy. Elytra sparsely covered with pale brownish pubescence, variegated with hoary, the latter usually forming an irregular, short vitta from near humerus at base, a fine, indistinct vitta towards suture from basal fifth to apical fourth, and several very irregular vittae apically. Body beneath and legs reddish-brown, covered with ashy pubescence; metasternum broadly brown pubescent on sides; abdomen ashy pubescent, variegated with brown so that the ashy forms five more or less distinct vittae; femora somewhat tinged with brownish; tarsi with claw segments broadly paler at base. Antennae reddish-brown, brown pubescent, first to third segments entirely, basal three-quarters of following segments ashy, a little more broadly so on fourth and alternating segments.

Head above sparsely, finely punctate, on sides more densely so; front a little higher than broad, sides slightly emarginated by eyes, below which they are strongly narrowed, broadly concave between antennal tubercles, minutely, densely

punctate and with fine, deep, moderately dense punctures interspersed; genae slightly transverse, minutely punctate, with only one or two larger punctures intermingled; eye with lower lobe elongate-ovate, tapering below, height nearly two and one-half times that of gena; antennal tubercles very prominent, rather robust, widely separated, armed with a distinct, curved tooth at apex. Pronotum distinctly transverse, apex feebly narrower than base, sides with an obsolete tubercle behind middle; apical transverse sulcus shallow but distinct, basal one deeper; disk slightly uneven, uniformly, rather coarsely punctate. Scutellum feebly transverse, sides straight, slightly oblique, apex broad, truncate. Elytra slightly wider behind middle, apices separately broadly rounded; disk densely covered with rather coarse punctures, becoming finer before apex, a broad smooth area along apical quarter or more of suture; humeri slightly prominent, anterior margin arcuate, strongly oblique. Prosternum simple, wide basally, narrowed to middle, thence nearly parallel-sided to apex; mesosternal process elongate, slightly tapering posteriorly, apex truncate. Fifth sternite equal to fourth, apex broadly truncate. Procoxae unarmed; femora short, slightly robust, clavate, profemora finely punctate but not rugose basally. Antennae about one-third again as long as body, the seventh segment attaining elytral apex, sparsely fimbriate beneath on third and fourth segments; scape short, reaching slightly beyond pronotal apex, rather slender, gradually clavate from base; third segment one-third longer than first, feebly arcuate; fourth a little longer than third, rest gradually shorter.

**FEMALE.** Very similar to male but antennal tubercles with a shorter tooth at apex; fifth sternite deeply emarginate at apex, medially with a broad, shallow, triangular impression; antennae wanting from fourth segment but probably only slightly longer than body.

LENGTH 7.5-10.5 mm.; width 2-2.5 mm.

*Holotype*.—Male; Cayenne; [M.C.Z.].

*Allotype*.—Female; Cayenne; [M.C.Z.].

*Other material*.—♂, ♀; topotypic; [M.C.Z.]; (too rubbed to be considered as paratypes).

### ***Cacostola flexicornis* Bates**

*Cacostola flexicornis* Bates, Ann. Mag. Nat. Hist., (3), xvii, 1866, p. 72.

"Head small, forehead with deeply impressed longitudinal line, punctured, coarsely pubescent; vertex coarsely punctured; antennal tubercles with small conical projection internally. Antennae rather slender, dark brown, bases of its segments pale testaceous; third strongly bent; last in male one-half again as long as preceding.

"Thorax short, lateral prominences conspicuous; closely punctured; dark, rusty brown. Elytra linear, closely and equally punctured from base to apex; dark, rusty brown. Beneath and legs dingy ashy; abdomen variegated. Santarem, on slender dead twigs." (A copy of the original description.)

***Cacostola simplex* Pascoe**

PLATE XI, FIGURE 6.

*Pachypeza simplex* Pascoe, Trans. Ent. Soc. London, (2), V, 1859, p. 55.*Cacostola simplex* Pascoe. Bates, Ann. Mag. Nat. Hist. (3), XVII, 1866, p. 31, (sep. p. 201).

Distinguishing characteristics of the species are its large, oblong eyes, more than twice genal height; the front subquadrate, dark brown pubescent, marked with a fulvous 'V' each side of middle and maculate with fulvous on vertex and on lateral margins; antennae indistinctly and narrowly annulate with hoary from fourth to fifth segment, a little more broadly so on sixth, eighth, and tenth, third segment straight, the fourth feebly longer than third; elytra with an elongate, narrow, triangular, brown space at suture, bordered each side by two distinct, whitish vittae, which do not attain apex.

FEMALE. Elongate-oblong, cylindrical, slender; dark reddish-brown to fuscous. Head fulvous pubescent, above with an indistinct brown vitta each side of middle and a very faint brownish area behind upper lobe of eye; front largely brown, variegated with ochraceous, the lateral margins, a macula on vertex, and a V each side of middle, bright ochraceous. Pronotum dark brown pubescent, the median line irregularly and sides broadly fulvous, on the sides somewhat interrupted with hoary and brown, usually forming a double vitta there, sometimes the hoary predominates. Scutellum covered with fulvous, hoary, and brown variegated pubescence. Elytra with a common, narrow, elongate, triangular, brown space suturally from base to apical quarter, bordered by two white vittae each side, these more or less interrupted with fulvous, sides and apex largely fulvous, more or less variegated with brown, near apex at middle of disk a short, whitish vitta. Body beneath dark reddish-brown, medially hoary pubescent, sides fulvous, tinged with brown here and there; sides of prothorax hoary, variegated with brown and fulvous, sometimes one color predominating, on other specimens another; mesepisternum hoary, fulvous, or variegated; abdomen variable, on each side broadly vittate with fulvous and hoary, each vitta medially more or less interrupted with brown, so that there appears to be two fine stripes each side, at middle a similar fine stripe of hoary, interrupted to form maculae. Legs dark brown, covered with gray pubescence, the femora tinged brown above, the tarsi somewhat paler at base, the apex narrowly fuscous. Antennae dark reddish-brown, apically, and bases of each segment from fourth or fifth, paler; densely pubescent with brown and grayish-brown, pale bases hoary-annulate, sometimes indistinctly so.

Head above sparsely, moderately punctate; front slightly higher than broad, subquadrate, broadly concave between antennal tubercles, impressed there and above clypeus, which is transversely prominent, rather coarsely, more or less densely punctate, especially medially and below antennal tubercles; gena slightly transverse, sparsely punctate; eye with lower lobe elongate-oblong, very large, more than twice height of gena; antennal tubercles widely separated, very prominent, at apex armed with a short, curved horn or long tooth. Pronotum feebly wider than long, base

and apex subequal, sides slightly arcuate, just behind middle with a minute tubercle; apical transverse sulcus obsolete, basal one slightly distinct, short, straight; disk sparsely, moderately punctate. Scutellum transverse, sides somewhat oblique, apex feebly rounded. Elytra with sides slightly widened behind middle, apices broadly, separately rounded; disk with an obsolete basal gibbosity, coarsely, densely punctate, especially near suture, suddenly terminating at apical third or quarter; humeri slightly prominent, anterior margin strongly arcuate and oblique, angle with a small, distinct tubercle. Prosternum simple, rather narrow, tapering apically; mesosternal process elongate, narrow, apex subtruncate. Fifth sternite with apex bilobedly emarginate, broadly, feebly, triangularly impressed at middle. Procoxae subglobose, unarmed; femora short, distinctly clavate apically. Antennae a little longer than body, sparsely fimbriate beneath on third and fourth segments; scape reaching slightly beyond apex of pronotum, feebly clavate on apical half; third segment one-fourth longer than first, straight; fourth feebly longer than third, rest gradually shorter.

LENGTH 11-12 mm.; width 2.7-3.2 mm.

*Type locality*.—Pará, Brazil.

*Distribution*.—Amazon region and the Guianas.

FRENCH GUIANA: 2 ♀; Cayenne; [M.C.Z.].

BRAZIL: ♀; Rio de Janeiro; [C.M.]. ♀; Santarem; [C.M.].

*Remarks*.—The Rio de Janeiro specimen have been mislabelled; it agrees in every respect with the other examples on hand.

### ***Cacostola rugicollis* Bates**

*Cacostola rugicollis* Bates, Biol. Centr.-Amer., Col. v, 1885, suppl., p. 370.

"Closely related to *Cacostola simplex*, differs in thorax above transversely rugulose. Quite linear, fuscous, elytra vaguely gray-vittate (vittae short, interrupted from humeri to middle, and vittules short, everywhere, two towards apex); thorax above entirely transversely rugulose, rugules sparsely punctate; elytra confusedly punctate as in *Cacostola simplex*, longitudinal spaces more or less smooth.

"Length: 5½ lines." (Original description.)

*Type locality*.—Cordova, Mexico.

### ***Cacostola fusca* Thomson**

PLATE XI, FIGURE 7

*Cacostola fusca* Thomson, Physis, II, 1868, p. 68.

Somewhat related to *C. simplex* but differs in lacking vittae on head above; the pronotal and elytral patterns indistinct; front broad, without a V each side; antennae with third segment strongly arcuate, the fourth segment longer by two-fifths; eye with lower lobe more



slender below, twice the height of gena; and pronotum with an indistinct 'V' on basal half at middle, formed by two fine ashy vittae which coalesce at base.

**MALE.** Elongate-oblong, cylindrical, slender; dark reddish-brown, rather sparsely covered with brown and ashy pubescence. Head ashy above, without vittae, on sides largely brown; front brownish pubescent, on each side of middle with an indefinite ashy macula. Pronotum largely brown pubescent, without distinct markings, at middle apically a short, fine, ashy vitta, on base a fine vitta each side of middle, tapering posteriorly, forming a 'V' and at sides with a broad but indistinct ashy vitta. Elytra each with two whitish, more or less interrupted vittae from base to middle, feebly oblique, and a single one on apical fifth, the suture and sides mostly ashy, an indistinct fascia of brown pubescence behind middle. Body beneath dark reddish-brown, ashy pubescent; metasternum largely brown laterally; abdomen brown pubescent medially, each side broadly vittate with ashy, the vittae irregularly variegated or interrupted with brown, their edges of denser pubescence. Legs dark reddish-brown, very sparsely brown or ashy pubescent. Antennae dark reddish-brown, basal halves of fourth to sixth segments and entire segments from seventh dull roseate; entirely ashy pubescent, proximal segments more sparsely so.

Head finely, rather densely punctate; front nearly as broad as high, subquadrate, sides parallel, narrowed below eyes, minutely, densely alutaceous, rather coarsely punctate laterally and in a transverse band below, deeply and broadly concave between antennal tubercles; gena subquadrate, minutely, densely alutaceous and coarsely, sparsely punctate; eye with lower lobe elongate, more ovate than oblong, about twice the height of gena; antennal tubercles very prominent, robust, at apex with a long, arcuate, erect tooth. Pronotum one-fifth wider than long, the sides nearly straight, slightly wider at apex than at base, unarmed; apical transverse sulcus shallow, arcuate, basal one deeper, sinuous; disk nearly smooth, finely, sparsely punctate. Scutellum slightly transverse, sides straight, feebly oblique; apex distinctly rounded, broad. Elytra feebly attenuate apically, apices separately rounded; disk with basal gibbosity subobsolete, with several indistinct grooves, one along suture and one towards sides posteriorly, entire surface rather coarsely, more or less densely punctate, except a small smooth area along suture near apex, one puncture each side of scutellum and another towards humeri larger and more deeply impressed, forming small foveae (constant?); humeri slightly prominent, anterior margin arcuate, oblique, angle with a small tubercle. Prosternum simple, narrow anteriorly, base strongly expanded; mesosternal process elongate, slightly narrower posteriorly, apex more or less rounded. Fifth sternite equal in length to fourth, apex broadly, distinctly emarginate. Procoxae slightly tumid behind, anteriorly with a low, obtuse tubercle; femora short, robust, clavate, profemora with a very rugose callous area at base; metatibiae swollen. Antennae slender, about one and two-thirds times body length, the sixth segment attaining elytral apex, sparsely fimbriate from second to sixth segments, more densely so on third; scape robust, rather short, attaining apical quarter of pronotum, slightly clavate from near base to apex, not rugose at base; third segment a little longer than scape, strongly arcuate; fourth segment two-fifths longer than third, the rest gradually shorter, eighth equal to third.

**LENGTH** 9.6 mm.; width 2.3 mm.

*Type locality*.—Brazil.

*Distribution*.—Eastern Brazil.

BRAZIL: ♂; Bonito prov., Pernambuco, "on cotton", January 18, 1883; [U.S.N.M.].

### *Cacostola braziliensis* Thomson

PLATE XI, FIGURE 8

*Cacostola braziliensis* Thomson, Physis, II, 1868, p. 68.

*Cacostola sulcipennis* Melzer, Rev. Ent., IV, 1934, p. 96.

● Outstanding characteristics of this species are: the elytra pale, tessellated laterally and in an irregular, post-median band with dark brown, without distinct pubescent vittae; front entirely ashy pubescent; head above without vittae; antennae with third segment arcuate, shorter than fourth, bases of segments from fourth broadly, distinctly hoary-annulate; eye with lower lobe oblong-ovate, nearly twice genal height; and gena transverse.

FEMALE. Elongate-oblong, slender, cylindrical; dark reddish-brown, sides of prothorax and most of elytra bright testaceous or straw colored; covered with ashy, hoary, and brown pubescence. Head pale ashy, without vittae above, sides brown; front ashy pubescent, laterally tinged with fulvous. Pronotum ashy and brown variegated, on sides with a broad ashy vitta, anteriorly divided into two by a brown vitta. Elytral surface irregularly tessellated with dark brown along sides and in an irregular post-median fascia, sparsely and irregularly covered with hoary or ashy pubescence, without distinct vittae. Body beneath and legs rather dark reddish-brown, hoary pubescent; abdomen medially brown pubescent, the lateral hoary vittae slightly variegated with brown; femora pale at base, as are the tibiae and the last tarsal segment. Antennae dark reddish-brown, third segment at base slightly paler, basal half of fourth and following segments yellowish-white; ashy and dark brown pubescent, the pale bases hoary.

Head finely, rather densely punctate; front a little higher than wide, sides straight, nearly parallel, very feebly widened above, strongly narrowed below eyes, minutely, densely alutaceous and finely, rather sparsely punctate, broadly concave between antennal tubercles; genae subquadrate, sparsely, finely punctate; eye with lower lobe elongate-oblong, tapering below, equal to about twice the height of gena; antennal tubercles very prominent, widely separated, moderately robust, at apex armed with a short, obtuse tooth. Pronotum subquadrate, a little wider than long, base and apex subequal, sides nearly straight, unarmed; apical transverse sulcus obsolete except towards sides, basal one rather deep, wide, arcuate laterally; disk minutely alutaceous and coarsely, rather densely punctate, except the low, elongate median tubercle which is nearly smooth. Scutellum nearly as long as wide, sides straight, feebly oblique, apex broad, slightly arcuate. Elytra parallel-sided, apices separately rounded; disk entirely covered by coarse, dense punctures, just before apex punctures suddenly finer and leaving a few smooth

spaces, basal gibbosity elongate, feebly prominent, a large, broad, oblique, flattened area laterally behind middle; humeri slightly prominent, anterior margin rounded, rather strongly oblique, angle with a small tubercle. Prosternum simple, regularly narrowed from base to apex; mesosternal process elongate, a little narrower posteriorly, apex truncate. Fifth sternite a little longer than fourth, apex feebly emarginate, medially with a broad triangular impression on flattened area. Procoxae comparatively small, unarmed; femora short, slightly robust, clavate apically, pro-femora beneath finely, irregularly rugose basally. Antennae a little longer than body, tenth segment attaining elytral apex, sparsely fimbriate beneath on segments four to six, rather densely so on third; scape short, nearly attaining apical quarter of pronotum, rather slender, feebly clavate; third segment one-fifth longer than first, distinctly arcuate; fourth straight, one-third longer than third, rest gradually shorter.

LENGTH 9.6 mm.; width 2.2 mm.

*Type locality*.—Brazil.

*Distribution*.—Southern Brazil.

BRAZIL: ♀; Bonito Province, Pernambuco, February 2, 1883; [U.S.N.M.].

### *Cacostola clorinda* Dillon and Dillon, spec. nov.

PLATE XI, FIGURE 9.

Similar to *C. braziliensis* in having pale elytra tessellated with darker and without distinct pale vittae; differs in front being very broad, transverse; antennae feebly annulate, with third segment arcuate, fourth slightly longer than third; eye broadly oblong-ovate, twice genal height; gena transverse; front thinly pubescent, pubescence variegated, the dark brown predominating.

MALE. Elongate-oblong, cylindrical, slender; head and pronotum dark brown, elytra testaceous, with scattered, elongate, brown patches and a broad vitta at suture to middle dark brown. Head thinly brown, fulvous, and white variegated, the brown predominating, occiput at middle with an indistinct vitta of bright fulvous. Pronotum dark brown pubescent, laterally broadly vittate with fulvous and grayish variegated pubescence; disk with scattered white hairs. Scutellum brown pubescent. Elytra thinly pale fulvous pubescent, either side of suture a broad, dark brown pubescent vitta to behind middle; disk with indistinct, irregular vittae of grayish-fulvous. Beneath dark reddish-brown; pro-, meso-, and metasternum medially grayish pubescent, pro- and mesosternum laterally fulvous, metasternum laterally dark brown; abdomen gray and brown variegated, with a small macula basally on each sternite at middle of grayish-fulvous, and laterally with two rows of indistinct elongate maculae of same color but slightly deeper. Legs dark reddish-brown, tarsi testaceous, entirely covered with dark brown and fulvous variegated pubescence.

Head above with coarse, deep, close-set punctures, front slightly transverse; sides straight, parallel, surface with coarse, deep, well-spaced punctures; genae elongate, with a few coarse punctures; eyes with lower lobe large, oblong-ovate,

about one and two-thirds times genal height; antennal tubercles prominent, well-separated, with a short, robust tooth at apex. Pronotum very feebly transverse, base subequal to apex; sides feebly arcuate, unarmed; apical transverse sulcus obsolete, basal sulcus shallow, feebly curved medially, obsolete laterally; disk sparsely, coarsely punctate, moderately declivous basally. Scutellum transverse, sides very broadly rounded, apex acutely rounded. Elytra with sides straight, feebly attenuate to apices, which are separately rounded; entire surface coarsely, sparsely punctate, the punctures somewhat smaller apically; humeri feebly prominent, anterior margin arcuate, oblique, angle with a very feeble obtuse tubercle. Prosternum simple, broad, widened behind; mesosternal process narrow, sides straight, parallel, apex broadly rounded; fifth sternite slightly shorter than fourth, at apex broadly emarginate. Femora robust, strongly clavate, profemora finely rugose on extreme base; metatibiae and protarsi dilated. Antennae about one and one-fourth times body length; scape robust, cylindrical, gradually clavate, straight, attaining only apical quarter of pronotum; third segment cylindrical, feebly arcuate, slightly longer than scape; fourth about one-third longer than third; remaining segments gradually shorter, except eleventh which is longer than tenth and arcuate; fimbriate very feebly on all segments except scape.

LENGTH 8 mm.; width 2 mm.

*Holotype*.—♀; Chapada, Brazil; [C.M.].

### *Cacostola sirena* Dillon and Dillon, spec. nov.

PLATE XI, FIGURE 10

Related to *fusca*, from which it differs as follows: eye with lower lobe more ovate, twice genal height; pronotum without a V-shaped marking; antennae not so distinctly annulate, third segment feebly arcuate, fourth segment slightly longer than third.

FEMALE. Elongate-oblong, very slender, cylindrical; head and pronotum piceous, elytra pale and dark reddish-brown. Head sparsely pale fulvous pubescent, an indistinct vitta medially and posterior margin of eye outlined with dense, fulvous pubescence. Pronotum sparsely, pale fulvous pubescent, this pubescence forming five indistinct vittae, one medially, two either side laterally. Scutellum and elytra sparsely fulvous pubescent, elytra along suture with a narrow vitta of sparse, dark brown pubescence to middle, each elytron with two well separated, sparsely pubescent, whitish vittae from humeri to apices (these coalescent on apical fifth); lateral margin of elytra broadly whitish pubescent to about apical quarter. Beneath reddish-brown, pro-, meso-, and metasternum medially thinly pale fulvous pubescent, pro- and mesosternum laterally strongly fulvous pubescent, metasternum laterally dark brown, with an indistinct fulvous macula either side; abdomen thinly pale fulvous pubescent medially, either side with two rows of indistinct, elongate maculae of a deep fulvous pubescence, the internal row being much narrower. Legs dark reddish-brown, tarsi paler; femora above thinly fulvous pubescent, laterally dark brown, tibiae thinly grayish-fulvous pubescent; tarsi thinly brown pubescent. Antennae with scape dark reddish brown, remaining segments paler; scape brownish-

fulvous pubescent, apices from fourth broadly pale brownish, remaining portion of segments ashy.

Head above with coarse, deep, close-set punctures; front subquadrate, sides straight to below eyes, thence feebly narrowed, surface with well-spaced, coarse, deep punctures; genae transverse, coarsely punctate; eyes with lower lobe large, oblong-ovate, about twice genal height; antennal tubercles very prominent, subapproximate, at apex only very feebly produced. Pronotum transverse, base subequal to apex; sides nearly straight, unarmed; apical transverse sulcus feeble, straight, basal one wide, shallow, feebly oblique laterally; disk basally feebly declivous, entire surface beset with coarse, deep punctures. Scutellum transverse; sides straight, oblique; apex rounded. Elytra with sides straight, feebly tapering to apices; apices separately rounded; entire surface coarsely, moderately punctate, the punctures slightly finer apically; humeri slightly prominent, anterior margin arcuate, oblique, angle rounded, not tubercled. Prosternum simple, much widened behind; mesosternal process narrow, sides straight, apex truncate; fifth sternite equal to fourth, at apex very strongly emarginate and very broadly, triangularly impressed. Procoxae globose, unarmed; femora robust, strongly clavate; protarsi feebly dilated. Antennae slender, very slightly longer than body; scape cylindrical, gradually clavate, feebly arcuate, attaining apical fourth of pronotum; third segment slightly longer than scape, cylindrical, feebly sinuate; fourth slightly longer than third, remaining segments gradually shorter; feebly fimbriate on third and fourth segments.

LENGTH 9 mm.; width 2 mm.

*Holotype*.—Female; Caracas, Venezuela, January-February, 1922; [U.S.N.M. no. 57204].

### *Cacostola grisea* Dillon and Dillon, spec. nov.

PLATE XI, FIGURE 11

Somewhat similar to *C. variegata* but quite distinct from it and all the other species in having a broad, white patch on each elytron at base from humeri but lacking vittae; front dark fulvous pubescent; eye with lower lobe narrower, one and two-thirds times genal height; antennae nearly entirely hoary pubescent, third segment almost straight, fourth distinctly longer than third.

MALE. Elongate-oblong, slender, cylindrical; dark reddish-brown to fuscous, sparsely covered with hoary-gray pubescence. Head including front fulvous pubescent, finely variegated with hoary. Pronotum fulvous pubescent, variegated finely with hoary, sides broadly, but indistinctly bivittate with hoary. Scutellum ashy-gray. Elytra largely hoary pubescent, along suture broadly grayish-brown and a broad oblique fascia of the same color from basal third of sides to middle of suture, behind which the pubescence is somewhat variegated with ashy. Body beneath fuscous, covered with hoary pubescence medially, becoming ashy on sides, metasternum broadly brown variegated laterally; abdomen sparsely covered with bright ochraceous pubescence, feebly variegated with hoary and with maculae of the

latter color on sides of third, fourth, and fifth sternites, each side of center from middle of third sternite to apex with a broad vitta of brown. Legs nearly fuscous, covered with hoary pubescence, variegated with ashy, tinged with brown on femora; tarsi with claw-segment slightly paler on basal half. Antennae rather dark reddish-brown, bases of fourth to eighth segments slightly paler, following segments entirely so; hoary pubescent, scape and third segment slightly variegated with brownish.

Head above with a number of fine punctures; front slightly longer than wide, sides parallel, narrowed below eyes, broadly concave between antennal tubercles, minutely, densely alutaceous and finely, rather sparsely punctate; genae about as high as wide, subquadrate, minutely alutaceous and finely, densely punctate just below eye; eye with lower lobe elongate-oblong, the external edge oblique from lower angle, one and two-thirds times as tall as gena; antennal tubercles robust, very prominent, widely separated, armed at apex with a long, slightly curved tooth. Pronotum distinctly wider than long, sides irregularly arcuate, slightly wider at apex, with a low, broad, obsolete tubercle behind middle; apical transverse sulcus feeble, arcuate, basal one deeper, irregular; disk slightly uneven, finely, but rather rugosely punctate. Scutellum about as long as wide, sides slightly curved, oblique, apex rather narrow, subtruncate. Elytra nearly parallel-sided, slightly narrower apically, apices separately, broadly rounded; disk at base feebly gibbose on each elytron, coarsely, rather densely punctate to apex; humeri slightly prominent, anterior margin arcuate, very strongly oblique, angle with a small tubercle. Prosternum simple, rather broad at base, gradually narrowed anteriorly; mesosternal process elongate, sides parallel, apex rounded. Fifth sternite as long as fourth, apex retuse. Procoxae subglobose, unarmed; femora short, robust, strongly clavate, profemora slightly rugose at base on anterior face; metatibiae robust, strongly expanded on apical two-thirds. Antennae with eighth segment attaining elytral apex (rest wanting), fimbriate beneath only on third segment with short, rather rather dense hairs; scape slightly surpassing pronotal apex, robust, gradually clavate from base; third segment one-fourth longer than first, very nearly straight; fourth segment one-third longer than third, rest gradually shorter.

LENGTH 9.2 mm.; width 2.3 mm.

*Holotype*.—Male; Demarara River bank one mile from Georgetown, British Guiana, September 22, 1918; (H. Morrison); [U.S.N.M. number 57205].

### CYLICASTA Thomson

*Cylicasta* Thomson, *Physis*, II, 1868, p. 42. Lacordaire, *Gen. Col.*, IX, 1872, p. 668, 682.

Resembles *Cacostola* in cylindrical form of body; pronotum cylindrical, subequal in width at base and apex; and antennae with scape gradually clavate from base. From this genus, it is distinct in antennal tubercles being subapproximate, unarmed; front narrowed above; elytra with a large, dark macula on each apex; eyes above subapproximate, with lower lobe subequal in height to gena; legs more elongate; and scape more slender, longer, nearly attaining middle of pronotum.

Small, elongate-oblong, cylindrical, slender; elytra with a large, terminal, dark macula. Head with front elongate, strongly narrowed between eyes, parallel-sided below eyes; genae vertical; eyes above subapproximate, with lower lobe oblong-ovate or elongate-ovate, subequal in height to gena, sometimes slightly taller; antennal tubercles approximate, unarmed at apex in both sexes. Pronotum cylindrical, sides sometimes feebly arcuate, base and apex subequal in width, sometimes former, sometimes the latter a little broader; apical sulcus shallow, basal one shallow, oblique laterally; disk smooth, with coarse, well spaced punctures, not tuberculate but entirely tumid between sulci. Scutellum transverse, sides straight, feebly oblique, apex subtruncate. Elytra with sides nearly parallel, feebly attenuate, apices separately feebly rounded; basal gibbositics feebly elevated, broad; disk on basal third with coarse, rounded, simple punctures; humeri only slightly prominent, anterior margin strongly arcuate, angle with a feeble tubercle (except in *liturata* where it is prominent and with a large tubercle beneath angle). Prosternum simple, very strongly widened from behind middle; mesosternal process short, broad, sides parallel, apex subtruncate. Legs short; procoxae globose, unarmed in both sexes; femora robust, moderately clavate from basal third, profemora more strongly clavate in male. Antennae about twice length of body in male, from one and one-third to one and one-half times body length in female; scape slender, gradually, moderately clavate from base, slightly arcuate, nearly attaining middle of pronotum; third segment almost straight, from one-eighth to nearly one-fourth longer than first; eleventh longer than tenth in both sexes, especially elongate in male.

GENOTYPE: *Trestonia terminata* Buquet, by monotypy.

#### KEY TO SPECIES

1. Humeri with a large tubercle beneath the angle; pale pubescence distinctly metallic reflexed; pronotum with median line largely yellowish; size over 12 mm. .... *liturata*  
 Humeri not tuberculate; pubescence not metallic reflexed; pronotum without a yellowish median line; size usually less than 10 mm. .... 2
2. Pronotum and elytra largely covered with pale green pubescence; elytra without a distinct fascia before apical dark macula ..... *terminata*  
 Pronotum and elytra with gray, fulvous, or yellowish-gray pubescence; elytra with at least a narrow fascia of white or yellowish-gray pubescence before dark terminal macula ..... 3
3. Elytra not roughly punctate, with preapical pale fascia about twice width of the terminal macula, yellowish-gray; pronotum yellowish-gray pubescent. . . . *nysa*  
 Elytra roughly, coarsely punctate, with preapical pale fascia about half the width of apical macula, white; pronotum at base hoary-gray. . . . *coarctata*

### *Cylicasta liturata* Fabricius

#### PLATE XI, FIGURE 12

*Saperda liturata* Fabricius, Syst. Eleuth, II, 1801, p. 325.

*Cylicasta liturata* Fabricius. Aurivillius, Cat. Col., pars 74, 1923, p. 350.

Distinct from other members of the genus in its comparatively large size; in the yellowish median line of pronotum; in having a

prominent tubercle beneath humeral angle; and the pale pubescence distinctly reflexed with metallic colors.

**FEMALE.** Elongate-oblong, rather slender, cylindrical; fuscous, elytra dark reddish-brown; covered with hoary and medium yellow pubescence, the former can be seen under high magnification to be reflexed with multicolor metallic tints. Head above yellow pubescent, white below, tinged with brown and metallic on sides; front hoary and yellow variegated, towards mouth white, all over tinged with metallic green. Pronotum variegated hoary and yellow, the latter color predominating anteriorly and forming a more or less distinct median line, the former predominant basally and on the sides, tinged with metallic green and at sides of disk with brownish; slightly behind center a rhombus-shaped glabrous macula and each side of disk with an oblique, glabrous mark. Scutellum hoary, tinged with metallic green; medially glabrous. Elytra rather sparsely covered with hoary pubescence, tinged with metallic green, with denser yellow pubescence basally and along suture especially on anterior half; apex broadly dark brown pubescent, the brown area more or less irregularly outlined with yellow and with a large, lunate, yellow macula at middle, extending to sides; before this brown area an irregular, whitish fascia, not very distinct. Body beneath dark reddish-brown, irregularly covered with white pubescence, on metasternum and posteriorly on sides becoming yellow; metasternum laterally and metepisternum on posterior three-fourths strongly tinged with bright metallic green; abdomen reddish-brown, sparsely hoary and yellow pubescent, pubescence of former color condensed along sides and medially, of the latter toward the sides, to form five series of maculae alternating in color, each sternite apically broadly tinged with brown. Legs rather dark reddish-brown, hoary and white pubescent, tinged irregularly with yellow and brown. Antennae fuscous, gradually paler to apex, hoary pubescent, apices of all segments tinged with brown.

Head above minutely, densely alutaceous; front coarsely, sparsely punctate, and rather coarsely, irregularly rugose, especially below, but this sometimes concealed by pubescence; gena elongate, very narrow, lunulate, attaining only the lower inner angle of eye, separated from sides of head by a distinct suture or carina; eye with lower lobe rather broad, oblong-ovate, subequal in height to gena. Pronotum, very feebly wider at apex than at base, sides nearly straight, unarmed; disk coarsely, deeply punctate, entirely tumid and with a feeble tubercle near each side. Elytral disk coarsely, rather densely, more or less rugosely punctate to slightly behind middle, where the punctures abruptly become fine, ceasing at apical fourth; humeri beneath angle with a large, prominent tubercle, which is deeply punctate at its apex. Fifth sternite distinctly longer than fourth, apex narrowly emarginate, with an indistinct, subtriangular impression on apical half. Procoxae anteriorly with a very indistinct, feebly elevated tubercle. Antennae about one and one-quarter times length of the body; third segment as long as first, slender, slightly arcuate; rest straight, gradually shorter, except eleventh which is elongate, distinctly longer than third.

LENGTH 13.5 mm.; width 4.5 mm.

*Type locality.*—"America meridionali".

*Distribution.*—Amazon basin.

BRAZIL: 2 ♀; Santarem, June 1919; (S. M. Klages); [C. M.]



**Cylicasta coarctata** Bates

PLATE XI, FIGURE 13

*Trestonia coarctata* Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 312 (sep. p. 198).

Closely resembles *C. terminata* but the pubescence of elytra is more fulvous and that of pronotum is more gray, especially at base; punctation on both elytra and pronotum is much coarser; eye with lower lobe elongate-ovate; elytra with apical macula much larger, preceded by a rather narrow, whitish fascia; and clypeus toothed each side of middle in male.

MALE. Elongate-oblong, rather robust, cylindrical; piceous or dark reddish-brown. Head above bright fulvous pubescent; front fulvous pubescent, more or less variegated with whitish and dark brown. Pronotum with sparse fulvons, white and brown variegated pubescence, laterally white with an iridescence. Scutellum whitish or pale fulvous pubescent, with a broad, glabrous vitta medially. Elytra variegated pale fulvous, white, and dark brown, on apical fifth a dark brown, more or less round macula with an irregular margin of whitish or fulvous, or both, and in center of macula two or three smaller, irregular maculae of fulvous. Beneath dark reddish-brown, thinly pale fulvous pubescent, variegated with a little white, sterna medially more or less grayish; abdomen laterally with small, irregular, indistinct maculae of fulvous. Legs reddish-brown, thinly pubescent with fulvous, white, and brown. Antennae with scape piceous, thinly grayish-brown pubescent; remaining segments paler, third segment on basal two-thirds thinly ashy pubescent, apical third grayish-brown, remaining segments on basal halves thinly ashy and on apical halves grayish-brown.

Head above finely alutaceous; front finely, densely and coarsely, rugosely punctate, lower margin of clypeus with a distinct, robust tooth either side of middle; genae elongate-triangular, much narrowed above, attaining eye only at latter's lower internal angle; eye with lower lobe elongate-ovate, slightly longer or equal to gena in height. Pronotum at base slightly wider than apex: laterally unarmed; entire disk tumid, surface alutaceous and with coarse, well-spaced punctures. Elytra with surface to behind middle with coarse, deep, well-spaced punctures, thence to apex punctures much finer and sparser. Fifth sternite slightly longer than fourth, apex very broadly arcuate. Antennae with fifth segment reaching nearly to apex of elytra (missing from fifth); third segment elongate, cylindrical, very feebly sinuate, more than one-third longer than scape.

FEMALE. Lower lobe of eye smaller; genal sutures very indistinct and clypeus lacking teeth on lower margin; fifth sternite broadly, shallowly, triangularly impressed apically at middle; antennae with fifth segment reaching only to two-thirds elytral length, third segment slightly longer than scape.

LENGTH 8.5-9 mm.; width 2.5-2.75 mm.

*Type region.*—"Banks of Tapajos and at Ega".

*Distribution.*—Amazon basin.

BRAZIL: ♂, ♀; Santarem; [C. M.].

*Cylicasta terminata* Buquet

PLATE XI, FIGURE 14

*Trestonia terminata* Buquet, in Thomson, Arc. Nat., 1859, p. 47, pl. 5, f. 3.*Cylicasta terminata* Buquet. Thomson, Physis, II, 1868, p. 43. Lacordaire, Gen. Col., IX, 1872, p. 683.

Distinguished by its uniform pale greenish-gray pubescence, which is interrupted only by the dark elytral apices, by ochraceous on head above and on apical half of pronotum, and by an indistinct brownish area on sides of elytral disk anteriorly; clypeal margin not toothed in male; and pronotum with a distinct, ovate, glabrous macula behind center of disk.

MALE. Elongate-oblong, rather robust, cylindrical; fuscous, elytra slightly paler; covered largely with pale greenish-gray pubescence. Head above, antennal tubercles, and upper half of front ochraceous pubescent, rest pale greenish-gray. Pronotum greenish-gray, anteriorly variegated with fulvous and dark brownish, with a distinct, elongate-ovate, glabrous macula from behind center to basal transverse sulcus. Scutellum entirely greenish-gray. Elytra pale greenish-gray, more densely so on posterior two-fifths, with a large but indistinct, light brown patch laterally behind humeri to just behind middle, broadly removed from suture; each apex with a rather large, dark brownish area, margined anteriorly and indistinctly with whitish, and including one or two very irregularly shaped, fulvous maculae, the extreme apex also fulvous. Body beneath and legs dark reddish-brown, rather sparsely clothed with pale greenish-gray pubescence; abdomen with five rows of small maculae formed of denser pubescence, indistinct or wanting on fifth sternite; metasternum laterally and metepisterna variegated with fulvous and somewhat tinged with brown. Antennae dark reddish-brown, covered with bright brown pubescence; entire third segment, most of fourth and bases of first, fifth, and sixth segments greenish-gray, the last two inconspicuously so, seventh and following narrowly and very feebly greenish on bases.

Head with front minutely, densely alutaceous, with a number of coarse punctures medially; genae elongate, triangular, narrowed above, only touching eye at the latter's lower internal angle, minutely, densely, alutaceous, eye with lower lobe broadly oblong, nearly equal in height to gena. Pronotum transverse, feebly narrower at apex than at base, sides broadly constricted at base, behind middle suddenly expanded, then gradually narrowed to apex, unarmed, or indistinctly tubercled; disk tumid, coarsely, sparsely punctate but without other sculpturing. Elytra with disk on basal half coarsely, rather sparsely punctate, punctures gradually finer behind middle, disappearing well before apex. Fifth sternite a little longer than fourth, apex slightly areolate. Antennae nearly twice length of body, the sixth segment surpassing elytral apex; third segment one-third longer than first, slightly arcuate.

LENGTH 9 mm.; width 2.7 mm.

*Type locality*.—Cayenne.

*Distribution*.—French Guiana.

FRENCH GUIANA: ♂; Cayenne; [M.C.Z.].

*Cylicasta nysa* Dillon and Dillon, spec. nov.

PLATE XI, FIGURE 15

Resembles *C. terminata* in having a glabrous macula behind the center of pronotum, but in present species this is broader and more or less triangular. It differs from all described species in its yellowish-gray pubescence and is distinct also in having a fascia before the apical macula of elytra, resembling *C. coarctata* in this latter respect, but in the present case the fascia is about twice as broad.

**FEMALE.** Elongate-oblong, cylindrical, rather robust; dark reddish-brown, elytra somewhat paler; covered with pale yellowish-gray pubescence. Head above bright fulvous, interrupted by irregular brownish or subglabrous patches; upper part of front brown and bright fulvous variegated, rest of front and sides of head broadly pale yellowish-gray pubescent. Pronotum pale yellowish-gray, anteriorly bright fulvous and somewhat tinged with brownish, medially an elongate, triangular, glabrous macula extending from middle to near basal sulcus. Scutellum pale yellowish-gray, somewhat sparsely so medially. Elytra on basal three-fifths pale yellowish-gray and light brownish variegated, with a number of indistinct irregular maculae of bright fulvous interspersed; a broad fascia of pale yellowish-gray behind middle, attaining sides and suture, behind which there is an ovate, dark brown area enclosing an irregular fulvous macula which is strongly constricted at its middle, extreme apex very narrowly margined with pale yellowish-gray. Beneath dark reddish-brown, sparsely pale yellowish-gray pubescent, slightly more hoary medially, abdomen testaceous, with five rows of indistinct maculae composed of denser pubescence. Legs dark reddish-brown, sparsely pale yellowish-gray pubescent. Antennae dark reddish-brown pubescent, slightly variegated with hoary; basal four-fifths of third and basal halves of following segments distinctly annulated with pale yellowish-gray.

Head with front finely punctate, especially above; gena elongate, triangular, much narrowed above, attaining ocular margin only near front; eye with lower lobe broadly oblong, not quite so tall as gena. Pronotum distinctly transverse, apex slightly narrower than base, sides rounded, constricted as base and apex, with an obsolete tubercle behind middle; disk entirely tumid, with sparse, moderate punctures apically and basally, behind center a deep linear impression. Elytra with disk basally slightly rugose, a number of rather coarse punctures to behind middle, thence gradually finer and less distinct to apex. Fifth sternite much longer than fourth, apex broadly emarginate, with a feeble, triangular impression apically. Antennae slender, one fourth longer than body, the eighth segment surpassing elytral apex; scape reaching to apical third of pronotum; third segment one-third longer than first, slightly arcuate.

LENGTH 8 mm.; width 2.5 mm.

*Holotype*.—Female; Aracataca, Magdalena, Colombia; (P. J. Darlington); [M.C.Z.].

**TRESTONIA** Buquet

*Trestonia* Buquet, in Thomson, Arc. Nat., 1859, p. 45. Thomson, Class. Ceramb., 1860, p. 43; Syst. Ceramb., 1864, p. 392. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 310 (sep. p. 196). Lacordaire, Gen. Col., ix, 1872, p. 668, 686.

Differs from *Cylicasta* in the following respects: front subquadrate or feebly elongate, not much narrowed above; eye with lower lobe much taller than gena, upper lobes more widely separated above; pronotum feebly armed at sides; elytra with a distinct tubercle at humeral angle, punctures finer and more obsolete on apical half, the black macula placed at apical third, and antennae shorter, having scape shortened, more strongly clavate and more robust.

Moderate or small sized, elongate-oblong, rather slender, cylindrical; piceous or dark reddish-brown, elytra usually with an arc of contrasting pubescence on apical third. Head with front feebly elongate or subquadrate, sides gradually widened to lower margin of eye, abruptly narrowed to epistoma; gena feebly elongate (transverse in *chevrolatii*); eye with lower lobe oblong-ovate or oblong, one and one-half to more than twice height of gena; antennal tubercles prominent, well separated, produced in male into a long, robust tooth truncate at apex, in female tooth short and subacute. Pronotum slightly transverse or feebly elongate, sides arcuate or nearly straight, minutely armed behind middle; with an apical and a basal transverse sulcus, basal one usually oblique at sides; disk either transversely rugose, with an elongate median tubercle, or smooth, with five broad, feebly elevated tubercles. Scutellum transverse. Elytra with sides nearly straight to apical third, thence narrowed to apices, which are separately rounded; basal gibbosities broad, feebly elevated; disk on basal half rather coarsely, more or less densely punctate, punctures finer and sparse behind middle; humeri feebly prominent, anterior margin arcuate, oblique, with a single, large, rounded tubercle at angle, giving a clawed effect. Prosterum simple, gradually wider posteriorly; mesosternal process rather short, sides nearly straight, apex truncate. Legs short; procoxae unicate or tuberculate in male, in female tuberculate or unarmed; femora robust, strongly clavate from basal quarter, profemora in male rugose at base. Antennae one and one-third times body length in male, as long as body (or slightly longer) in female; scape short, attaining pronotal apex, robust, abruptly clavate on apical half, in male strongly grooved basally; third segment straight or feebly arcuate, cylindrical, at least one-third longer than first; fourth either slightly shorter or slightly longer than third; in male eleventh slightly longer than tenth, not elongated in female.

GENOTYPE: *Trestonia forticornis* Buquet, designated by Thomson, 1864, p. 103.

## KEY TO SPECIES

1. Elytra with a black line before or at middle laterally; Guadeloupe .....2  
Elytra with black markings or maculae at or behind apical third .....3
2. Ashy-gray pubescent; elytral black marking before middle. *fulgurata* (p. 286)  
Fulvous and gray pubescent; elytral black marking at middle  
*signifera* (p. 286)

3. Elytral black marking on apical fifth ..... *forticornis* (p. 276)  
Elytral black marking at apical third ..... 4
4. Abdomen on last three sternites nearly entirely yellowish-white pubescent... 5  
Abdomen on last three sternites not entirely yellowish-white pubescent ..... 8
5. Elytra on basal two-thirds gray pubescent, apical pale spot elongate  
*chevrolatii* (p. 277)  
Elytra on basal two-thirds with variegated pubescence, apical pale spot  
rounded or triangular ..... 6
6. Elytra with preapical macula hoary and ochraceous, basal two-thirds more  
densely hoary ..... *ceara* (p. 280)  
Elytra with preapical macula yellowish-white ..... 7
7. Elytra with processes of black macula elongate, preapical spot larger  
*capreola* (p. 278)  
Elytra with processes of black macula short, preapical pale spot small  
*assulina* (p. 279)
8. Pronotum without any rugosities ..... 9  
Pronotum with at least a few transverse rugosities ..... 10
9. Elytra with median fascia densely pubescent, sharply defined, with an indistinct  
whitish macula before apex; antennae with fourth segment subequal in  
length to third ..... *ramuli* (p. 281)  
Elytra with median fascia not dense, without a preapical whitish macula;  
antennae with fourth segment slightly longer than third... *confusa* (p. 282)
10. Eye with lower lobe twice genal height ..... *pulcherrima* (p. 285)  
Eye with lower lobe one and one-half times genal height ..... *pyralis* (p. 283)

### **Trestonia forticornis** Buquet

*Trestonia forticornis*, Buquet, in Thomson, *Arcana Nat.*, 1859, p. 46, pl. 5, f. 4.

"General color greenish-ashy gray, except last three sternites which are a pale yellow, front of head pale yellow, with two brown emarginate spots on upper part, placed horizontally a little above labrum and separated by a line at middle; elytra covered, especially on lateral margins, by whitish irregular spots, with a black spot and shining at apex. Head apparently smooth beneath short pile, with a well marked longitudinal line, especially at apex, surmounted in male by two strong, robust horns, pointed within, obliquely truncate at apex. Antennae with scape triangular at about the middle of its length, at base with small channels on sides. Prothorax a little longer than wide, irregular, strongly transverse, wrinkled laterally, with four elevations, rather confused, at middle, three arranged in a triangle, the fourth placed in the center of the three. Scutellum smooth. Elytra three times as long as prothorax, broad and sinuate at base distinctly straighter at apex, strongly punctate on basal half, especially anteriorly; body beneath and legs smooth, with exception of profemora which are distinctly wrinkled but only on sides. Length 22 mm.; width 6 mm. Cayenne." (Translation of the original description.)

From Buquet's illustration, this species is radically distinct in body form and maculation from other members of the genus.

**Trestonia chevrolatii** Buquet

PLATE XVI, FIGURE 6

*Trestonia chevrolatii* Buquet, in Thomson, Arc. Nat., 1859, p. 46. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 311 (sep. p. 196).

This species is very distinct in having the elytra almost entirely grayish pubescent; the apical black macula is much broader and less deeply dentate on posterior margin than in other species and the white apical macula is elongate, not triangular.

MALE. Elongate-oblong, cylindrical, rather slender; head and pronotum piceous, elytra dark reddish-brown. Head above pale fulvous, with a small, more or less triangular macula either side of middle of dark brown, sides brown pubescent; front deep fulvous, sides with a narrow vitta, and either side of middle just below antennal tubercles a small macula, pale fulvous, a large irregular macula of dark brown either side of middle above epistoma; gena variegated with dark brown and pale fulvous. Pronotum gray pubescent, very slightly variegated with dark brown and pale fulvous, a narrow indistinct vitta either side of middle of dark brown. Scutellum variegated with gray, pale fulvous, and dark brown. Elytra densely gray pubescent, basal fourth more or less variegated with pale fulvous and dark brown, thence to apical third with scattered and indistinct patches of dark brown pubescence; apical third with a velvety dark brown macula which is feebly arcuate on anterior margin and deeply dentate on posterior margin, narrowest near lateral margin and nearly double the width toward suture, more or less outlined with bright fulvous pubescence, slightly behind this an elongate, whitish macula which is also more or less outlined with bright fulvous. Beneath reddish-brown; sterna yellowish-gray pubescent; abdomen brown and fulvous variegated, toward sides also with gray interspersed, third and fourth sternites laterally each with an elongate whitish macula. Legs reddish-brown, with dark brown, fulvous, and gray variegated pubescence. Antennae from middle of scape reddish-brown, basal half of scape black or piceous; scape on basal two-thirds bright fulvous pubescent, apical third dark brown, slightly variegated with fulvous laterally; remaining segments dark brown pubescent, with scattered gray hairs, bases from fourth narrowly gray pubescent.

Head above finely alutaceous; front slightly transverse; gena transverse, coarsely rugosely punctate; eye with lower lobe large, oblong, nearly four times genal height. Pronotum subquadrate, base and apex subequal, sides nearly straight, unarmcd laterally; apical sulcus very deeply and abruptly curved at middle; disk at middle with a narrow, elongate tubercle, extending from basal to apical sulcus, either side transversely rugose. Scutellum with sides straight, oblique; apex truncate, notched medially. Elytra with basal quarter rugosely punctate. Fifth sternite broadly and deeply emarginate at apex. Procoxae strongly uncate internally; femora clavate, robust, profemora more robust and transversely rugose on basal half; protarsi dilated. Antennae with third segment cylindrical, feebly arcuate, nearly twice length of scape; fourth slightly shorter than third, remaining segments gradually shorter, except eleventh which is slightly longer than tenth.

LENGTH 18-19 mm.; width 5.75 mm.

*Type locality*.—Bolivia.

*Distribution*.—Amazon region into Bolivia.

BRAZIL: ♂; Telfé, December 24; [A.M.N.H.]. ♀; São Paulo de Olivença; (M. d'Mathan); [A.N.S.P.].

### *Trestonia capreola* Germar

PLATE XVI, FIGURE 7

*Saperda capreola* Germar, Ins. spec. nov., 1824, p. 492.

*Trestonia capreola* Germar. Buquet, in Thomson, Arc. Nat., 1859, p. 46.

Distinct in the following characters: elytra with whitish median fascia broad, reaching anteriorly along side to beneath humeri, black lunule at apical third with three or four very long branches or processes directed caudad, before each apex an oval whitish macula, rest of apex ochraceous; front with a broad, transverse, fulvous or brownish macula at middle; eye with lower lobe slightly taller than gena; procoxae usually uncate in male; and abdomen with last three segments largely whitish.

MALE. Elongate-oblong, cylindrical, rather slender; head and pronotum piceous, elytra dark reddish-brown. Head above fulvous and ashy pubescent, more or less strongly mottled with brown; front ashy pubescent, with a large, transverse, brownish or fulvous macula below center, irregular in shape and sometimes indistinct. Pronotum covered with brown, hoary, and ochraceous variegated pubescence, the first color predominating, the second more noticeable at base laterally and at center, the third forming a fine vitta each side and often arranged anteriorly in two transverse rows of maculae. Scutellum sparsely hoary pubescent. Elytra covered with brown, hoary, and ochraceous variegated pubescence, the ochraceous more conspicuous at base and in irregular specks sprinkled over most of surface; each laterally with a broad, whitish fascia, rather much interrupted indistinctly by brown and ochraceous, extending from near humeri to apical third, strongly narrowed toward suture, which it does not attain; behind fascia at apical third a transverse lunule of velvety black pubescence, finely outlined with ochraceous, and with three or four long diverticula of black extending irregularly caudad, occasionally some of these coalesce to form an ocellated circle, rest of apical portion largely bright ochraceous, with a whitish, transverse, oval macula at middle of disk before apex. Body beneath fuscous, covered with hoary pubescence and variegated with ochraceous, sidepieces of pro- and mesosternum mottled with brown; abdomen at base brown pubescent, with orange-ochraceous maculae laterally and variegated slightly with hoary there, apical three segments largely hoary pubescent, third at middle narrowly brown, fourth and fifth medially indistinctly tinged with brown, as are the sides of third and fourth. Legs fuscous, variegated with brown, hoary, and ochraceous. Antennae fuscous, hoary pubescent, sparsely mottled with brown; scape fulvous pubescent, with a large brown macula before apex.

Head minutely and densely punctate above; front broad, feebly elongate, minutely, densely alutaceous, impunctate; eye with lower lobe elongate-oblong, slightly tapering below, distinctly taller than gena; gena vertical, minutely alutaceous. Pronotum slightly transverse, a little wider apically than basally, sides broadly arcuate, with a small tubercle behind middle; apical sulcus slightly distinct laterally, basal one entire, not very distinct; disk nearly smooth, with an indistinct median flat callosity and several similar ones each side. Scutellum with sides slightly oblique; apex broad, subtruncate. Elytra with entire base of disk coarsely, more or less rugosely punctate. Fifth sternite as long as fourth, apex deeply emarginate. Procoxae distinctly uncatate; femora robust, strongly clavate, metafemora more slender; protarsi slightly dilated. Antennae with third segment arcuate, nearly twice as long as first, fourth equal to third, fifth shorter, rest gradually decreasing, eleventh elongate, arcuate, longer than third.

**FEMALE.** Only slightly different from male. Antennal tubercles with a short, acute tooth; procoxae unarmed; protarsi not dilated; fifth sternite deeply impressed at middle near base, apex feebly emarginate; antennae as long as body, scape slender, eleventh not elongate.

LENGTH 11.5-15 mm.; width 3.6-5 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

BRAZIL: 3 ♂, ♀; no locality data; [M.C.Z.—3 ♂; A.M.N.H.—♀]. ♂; Nova Friburgo; [M.C.Z.]. ♀; Amparo, São Paulo; [U.S.N.M.]. ♂; Hansa Humboldt, Santa Catharina, February, 1935; (A. Maller); [L. Lacey].

NO LOCALITY DATA: ♂; [Minn. U.].

### *Trestonia assulina* Bates

PLATE XVI, FIGURE 8

*Trestonia assulina* Bates, Trans. Ent. Soc. London, 1874, p. 226.

Apparently very closely related to *T. capreola* but the elytral median fascia is much whiter, and the black velvety lunule has shorter processes; with whole specimens more differences might be observable.

"Slightly elongate, robust; fuscous, ochraceous-fuscous tomentose; front yellow, median transverse macula fuscous; vertex fuscous; antennal tubercles distant, acute; thorax cylindrical; elytra oblong, a macula both sides behind middle, velvety fuscous, curved, anteriorly entirely margined with an ashy spot; posteriorly dentate; apical portion fuscous; visibly strigose, macula between apices ashy; abdomen medially black-fuscous, fulvous maculate. Length  $6\frac{1}{2}$ - $7\frac{1}{2}$  lines. Chontales—also Brazil (?)."

The only specimen seen to which the above translation of the original description would apply lacks the head and prothorax. The following description is based on the remainder of the insect:

**FEMALE.** Scutellum white, brown, and fulvous pubescent. Elytra dark reddish-brown, with fulvous, brown, and white variegated pubescence, apical third with



a velvety-black, curved macula, having the anterior margin entirely bordered by a broad, whitish margin which laterally extends almost to humerus but does not attain the suture, the posterior margin with three indentations of bright brownish fulvous, the middle one broad, and between this macula and apex a large, irregular, whitish macula. Beneath dark reddish-brown, with fulvous, brown, and white variegated pubescence; meso- and metasternum medially yellowish-gray pubescent; abdomen with a small, fulvous macula on either side of middle on first three segments, a large fulvous macula more lateral either side on first and second segment, third sternite with a large, yellowish-white macula laterally, fourth with a much larger one and fifth sternite almost entirely yellowish-white. Legs dark reddish-brown, clothed with variegated fulvous, white, and brown pubescence.

Scutellum with sides straight, moderately oblique; apex subtruncate. Elytra with basal third coarsely punctate, thence to apex punctures sparser and obsolete. Mesosternal process moderately wide, sides gradually widening to apex which is deeply emarginate; fifth sternite about one-third again as long as fourth, at apex broadly, shallowly, triangularly impressed, apical margin broadly and strongly emarginate. Legs with femora robust, gradually clavate from basal third.

*Type locality*.—Chontales.

*Distribution*.—Central America.

COSTA RICA: ♀; no locality data; [M.C.Z.].

### **Trestonia ceara** Dillon and Dillon, spec. nov.

PLATE XVI, FIGURE 9

Related to *T. capreola* in having the last three abdominal sternites largely whitish, in the pale macula before apex of each elytron, and in the form of the black preapical elytral lunule. From this species, it is distinct in the apical pale elytral macula being largely ochraceous; eye with lower lobe twice height of gena; in the inverted fuscous 'V' on front; and in first two sternites being largely ochraceous at middle.

MALE. Elongate-oblong, cylindrical, rather slender; fuscous, densely covered with dark brown and hoary variegated (or mottled) pubescence. Head above with the brown predominating near occiput, more hoary around upper lobes of eyes, where there is a good deal of ochraceous as well, the latter color extends between and around antennal tubercles; front densely hoary pubescent, tinged with ochraceous near each side and in a large, irregular, central area, this area above outlined above with fuscous in the form of an open, inverted 'V' which is thickened at the middle and at the end of each prong; gena largely ochraceous and hoary. Pronotum tinged with ochraceous anteriorly and with an indistinct, interrupted vitta of same color each side on apical half. Scutellum sparsely hoary pubescent, glabrous at middle. Elytra covered with ochraceous and hoary variegated pubescence, the ochraceous strongly predominating at base, the hoary gradually increasing in amount until behind middle it forms a more or less distinct fascia, not free, however, from ochraceous, disk mottled irregularly with dark brown, especially in an oblique inter-

rupted band running from behind humeri to near suture and behind this band to middle of length of each elytron; at apical third a narrow, transverse, slightly oblique lunule of velvety black pubescence, with one distinct caudal prolongation internally and an indistinct, interrupted one a little more toward suture, laterally with one or two short, dentiform prolongations, rest of apical third variegated with ochraceous and brown pubescence, with very little hoary interspersed, except for an irregular hoary and ochraceous patch at middle before each apex. Body beneath dark reddish-brown to fuscous, hoary pubescent, laterally mottled with ochraceous and on prothorax with dark brown as well; abdomen fuscous, on first and second sternites covered with ochraceous and hoary variegated pubescence, toward each side mottled with brown, third and fourth sternites medially brown, ochraceous, and hoary pubescent, fifth tinged with brown at middle, third to fifth segments tufted or more or less vittate broadly with hoary each side. Legs reddish-brown, rather sparsely hoary pubescent, slightly mottled with ochraceous and dark brown. Antennae reddish-brown, hoary pubescent, on most of third segment and apices of following mottled with dark brown; scape hoary and ochraceous pubescent on base, largely brown on apical half.

Head with front broad but distinctly taller than wide, sides nearly parallel, narrowed from eye to mouth, with a few punctures below middle; gena slightly oblique, a little taller than wide, minutely alutaceous; eye with lower lobe elongate-oblong, about twice height of gena. Pronotum transverse, base subequal in width to apex, sides arcuate, irregular, behind middle with a small, distinct tubercle; disk slightly uneven, a little tumid each side and there with indistinct flat callosities. Scutellum with sides distinctly oblique, apex broadly truncate. Elytra with disk rather densely punctate with moderate sized punctures, which become suddenly finer and sparse behind middle, impunctate but minutely, distinctly alutaceous on apical third. Procoxae minutely tuberculate anteriorly; profemora sparsely, coarsely rugose beneath at base; protarsi slightly dilated. Antennae with third segment about two-thirds longer than first, slightly arcuate; fourth subequal to third, rest shorter, except eleventh, which is feebly longer than tenth.

LENGTH 11 mm.; width 3.5 mm.

*Holotype*.—Male; Ceará, Brazil, March 8, 1935; (D. DaRocha); [U.S.N.M. number 57219].

### **Trestonia ramuli** Bates

PLATE XVI, FIGURE 10

*Trestonia ramuli* Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 311.

The elytra with only an indistinct whitish macula before apex, the median fascia is narrower than in the preceding species, and more sharply defined, never extending along sides to beneath humeri; antennae from fourth segment distinctly annulate at base; three apical abdominal sternites brownish medially, hoary laterally.

MALE. Elongate-oblong, cylindrical, rather slender; fuscous, elytra dark reddish-brown. Head above ashy pubescent, mottled with brown, between antennal

tubercles fulvous or ochraceous; front pale fulvous pubescent, at middle a large, transverse, brown macula which is more or less distinctly tridentate above. Pronotum sparsely hoary pubescent, mottled with brown, anteriorly with ochraceous and toward each side with two longitudinal rows of indistinct ochraceous maculae. Scutellum very sparsely hoary pubescent. Elytra covered with hoary, brown, and dull ochraceous pubescence, on sides with a distinct, sharply defined white fascia from slightly before middle to apical third, not attaining suture; at apical third a thick transverse lunule of velvety black pubescence, constricted at middle and with at most one short, dentiform prolongation posteriorly; rest of apical portion brown pubescent, usually with three converging lines of dull ochraceous but without an apical macula. Body beneath reddish-brown to fuscous, hoary pubescent, laterally broadly mottled with ochraceous and on side-pieces with brown as well; abdomen entirely covered with hoary and brown variegated pubescence, apical sternites a little more hoary laterally, each sternite, except last, on apical margin with a row of six ochraceous and hoary maculae, a line of hoary from base of third segment to near apex of fifth each side of middle. Legs fuscous, covered with hoary, brown, and ochraceous pubescence. Antennae dark reddish-brown to fuscous, bases of segments from fourth slightly paler; sparsely brownish and hoary pubescent, pale bases entirely hoary, scape without ochraceous pubescence.

Head above minutely punctate; front subquadrate, slightly narrowed above and below from lower margin of eye, minutely alutaceous; gena oblique, only feebly elongate; eye with lower lobe elongate-oblong, twice height of gena. Pronotum transverse, sides irregular, arcuate, subequal at base and apex; disk more or less smooth, with several feeble callosities each side. Scutellum with sides nearly straight, oblique, apex broadly truncate. Elytra with disk rather finely, not densely punctate, gradually evanescent to apical third, thence smooth. Fifth sternite longer than fourth, feebly emarginate at apex. Procoxae with a small tubercle anteriorly; profemora rugose at base; protarsi slightly dilated. Antennae with third segment curved or straight, one-third longer than first, fourth subequal to third, rest shorter, eleventh distinctly elongate, arcuate.

**FEMALE.** Differs from male in having short, acute teeth on antennal tubercles; procoxae unarmed; profemora not rugose; fifth sternite with a triangular impression medially; antennae only slightly longer than body, scape not rugose, eleventh segment not elongate.

LENGTH 10-15 mm.; width 3-5 mm.

*Type locality.*—Ega, Brazil.

*Distribution.*—The Guianas and lower Amazon region.

FRENCH GUIANA: ♂, ♀; Cayenne; [M.C.Z.].

BRAZIL: 5♂, 2♀; Santarem; [C.M.].

### ***Trestonia confusa* Dillon and Dillon, spec. nov.**

PLATE XVI, FIGURE 11

The first of three species in which the last three sternites of abdomen are not largely white or whitish pubescent. In the present

form the pronotum is not rugose; eye with lower lobe twice genal height; elytra more sparsely, less distinctly punctate; frontal macula mottled with fulvous or yellowish; antennae with fourth segment slightly longer than third; and male distinctly uncate on procoxae.

**MALE.** Elongate-oblong, cylindrical, rather slender; head and pronotum reddish-brown, elytra much paler (newly emerged specimen?); head and pronotum thinly brown pubescent and with scattered, small, irregular, indistinct maculae of yellow; front yellowish-white pubescent, with orange-fulvous pubescence scattered over surface, medially with a large, transverse macula of dark brown which has a number of small, yellow maculae scattered over its surface; the pronotum has single white hairs scattered over its entire surface. Elytra brown pubescent with irregular maculae of yellow scattered over basal half and a single white hair in each puncture, just behind middle on each elytron a velvety black macula with anterior margin curved, entire, and bordered by a broad, whitish fascia which is widest at lateral margin of macula but only covers about half the distance from macula to humerus, posterior margin dentate only moderately at middle and with only a very feeble, short fulvous dentation more toward either side. Beneath reddish-brown, with brown, fulvous, and white variegated pubescence; meso- and metasternum with indistinct maculae of yellow; abdomen with three rows of maculae either side of middle of yellow pubescence, except the ones of the middle row on third and fourth sternites which are white, and on the fifth sternite the three rows each side are united into one large, more or less variegated macula. Legs reddish-brown, gray and brown pubescent. Antennae reddish-brown, the segments from fourth to eleventh with at least basal third testaceous, clothed with brown and a little fulvous pubescence, except the pale bases which are gray pubescent.

Head above alutaceous; front subquadrate with sides feebly widened to lower margin of eye, thence strongly narrowed; genae slightly elongate, oblique; eye with lower lobe oblong-ovate, nearly twice genal height. Pronotum slightly transverse, sides nearly straight, parallel, and very minutely armed just behind middle, base and apex subequal in width; disk with five, small, feeble callosities, one medially (basal), and two either side of middle (one apical and one basal). Scutellum transverse; sides nearly straight, feebly oblique; apex subtruncate. Elytra with basal half coarsely punctate, punctures more or less confused, thence to apex punctures finer. Fifth sternite slightly longer than fourth, apical margin emarginate. Procoxae globose, strongly uncate; femora robust, strongly clavate from basal third, profemora feebly rugose on basal third; protarsi feebly dilated. Antennae with third segment straight, cylindrical, one-half again as long as scape; fourth segment slightly longer than third, eleventh distinctly longer than tenth.

LENGTH 12.5 mm.; width 4.3 mm.

*Holotype*.—Male; Costa Rica; [M.C.Z.].

### **Trestonia pyralis** Dillon and Dillon, spec. nov.

PLATE XVI, FIGURE 12

Differs from *T. confusa* in frontal macula not being mottled with fulvous or yellowish; eye with lower lobe one and one-half times

genal height; pronotum rugose medially and somewhat so laterally; antennae with fourth segment shorter than third, scape less robust and less strongly clavate, fulvous, with a dark brown macula at apex; elytra at base roughly, coarsely punctate; procoxae not uncate in male.

**MALE.** Elongate-oblong, cylindrical, rather slender; head and pronotum piceous (pronotum sometimes dark reddish-brown); elytra piceous basally, remainder dark reddish-brown. Head above fulvous pubescent, with an indistinct, dark vitta either side of middle; front clothed with yellowish-white pubescence, medially with a large, transverse macula of brownish, the upper margin of which has a distinct triangular projection, around the bases of the antennal tubercles are patches of brownish pubescence. Pronotum thinly brown pubescent mixed with some fulvous, with scattered single white hairs. Scutellum brown and fulvous pubescent. Elytra with brown, fulvous, and white variegated pubescence, just behind middle a velvety-black macula with anterior margin arcuate, bordered by a narrow, bright fulvous fasaia and a wide but very indistinct white one which laterally only extends one-third of length of side to humerus, posterior margin deeply indented with bright fulvous at middle, either side another rather short indentation of fulvous. Beneath dark reddish-brown, clothed with brown, fulvous, and white variegated pubescence; abdomen with indistinct, small maculae of fulvous which become white on fourth and fifth sternites. Legs dark reddish-brown, covered with same variegated pubescence as elytra. Antennae dark reddish-brown; scape fulvous pubescent, with a large, irregular, dark brown macula at apex; segments from fourth paler basally; all clothed with dark brown pubescence in which there are small, scattered whitish maculae, except the pale bases of segments from fourth which are grayish pubescent.

Head above alutaceous; front transverse, with sides feebly widened to lower margin of eyes, thence strongly narrowed; genae elongate, feebly oblique; eye with lower lobe oblong-ovate, half again as long as gena. Pronotum slightly transverse; sides very feebly arcuate, minutely armed behind middle, apex and base subequal; median basal callosity very feeble, remainder of disk rugose. Scutellum transverse; sides straight, oblique; apex subtruncate. Elytra with basal third of disk coarsely rugosely-punctate, thence punctures not rugose and becoming much finer, at apex obsolete. Fifth sternite about one-third again as long as fourth, apical margin broadly emarginate. Procoxae globose, with an obtuse tubercle internally; femora robust, strongly clavate from basal third, profemora feebly rugose basally; protarsi feebly dilated. Antennae with third segment straight, cylindrical, one-fourth longer than scape; fourth segment slightly shorter than third; eleventh distinctly shorter than tenth.

LENGTH 11.25 mm.; width 3.6 mm.

*Holotype.*—Male; Hamburg farm, Reventazon, Costa Rica, February 2, 1926, upon withered foliage; (Ebene Limon); [U.S.N.M. number 57218].

*Paratype.*—Male; topotypic, February 22, 1926, caught headless in spider web [U.S.N.M.].

**Trestonia pulcherrima** Dillon and Dillon, spec. nov.

PLATE XVI, FIGURE 13

Distinct from the two preceding species in the following combinations of characters: pronotum rugose medially near apex and laterally; elytra on base with distinct, separate, sparser punctures; frontal macula not mottled; eye with lower lobe twice height of gena; and procoxae feebly uncate in male.

**MALE.** Elongate-oblong, cylindrical, rather slender; head piceous, pronotum and elytra dark reddish-brown. Head fulvous, brown, and white variegated pubescent, the dark brown on occiput condensed into a more or less broad, diamond-shaped macula, with a broad vitta of bright fulvous medially; front dull yellowish-white pubescent, with scattered, small patches of dull brownish, medially with a broad trapezoidal macula, placed horizontally, which on the upper and lower margin has a small, triangular projection at middle. Pronotum with variegated brown, fulvous, and white pubescence, medially, particularly at base, the white pubescence condensed to form an indistinct, broad, white vitta. Scutellum thinly white, brown, and fulvous pubescent. Elytra fulvous, brown, and white variegated pubescent; apical third with a velvety black, curved macula, the anterior margin of which is entire, and bordered with a narrow, bright fulvous band and a much wider white band, which only extends about half-way to humerus laterally, posterior margin deeply dentate at middle by narrow, bright fulvous pubescence and with a shallower, broader indentation near each lateral edge. Beneath dark reddish-brown, variegated with white, fulvous, and brown; meso- and metasternum medially grayish; abdomen with two or three rows of irregular, indistinct, fulvous maculae either side, sternites three, four, and five with a small, whitish macula either side. Legs piceous or dark reddish-brown, variegated with brown, fulvous and white pubescence, bases of femora grayish. Scape piceous, clothed with same variegated pubescence as rest of body (remainder of segments missing).

Head above finely alutaceous; front subquadrate, sides straight, feebly widened to lower margin of eyes, thence moderately narrowed to lower margin, surface alutaceous; gena rhomboidal, slightly taller than wide; eye with lower lobe large, oblong-ovate, about twice genal height. Pronotum transverse, sides feebly arcuate, minutely tubercled just behind middle, base and apex subequal in width; disk medially at base with a feeble, more or less elongate callosity and with a more elevated one either side near base, between median callosity and apical sulcus a few transverse rugosities and a few rugosities laterally. Scutellum transverse; sides straight, oblique; apex broadly rounded. Elytra on basal half of disk with large, distinct, coarse, rounded punctures which are well separated, laterally rugosely punctate, from middle to apices the punctures much smaller. Fifth sternite about one-half longer than fourth, apical margin truncate. Procoxae globose, with a very short, robust tubercle that is subuncate; femora robust, strongly clavate from basal quarter, profemora rugose on basal third of posterior face. Antennal scape robust, attaining basal fourth of pronotum, clavate from basal half, with four or five deep grooves internally at base (remaining segments missing).

LENGTH 12 mm.; width 4.3 mm.

*Holotype*.—Male; El Cermeno, Canal Zone, January 31, 1941, fruit fly trap; (J. Zetek); [U.S.N.M. number 57217].

### **Trestonia signifera** Buquet

*Trestonia signifera* Buquet, in Thomson, Arc. Nat., 1859, p. 49.

*Ischiocentra signifera* Buquet. Lacordaire, Gen. Col., ix, 1872, p. 674.

"General color fulvous mixed with gray; front of head yellowish; elytra with a fulgural, very straight, black line at middle toward lateral margin, preceded by a very faint spot of white; body beneath and legs bright fulvous with a small black rounded spot on each of first four sternites. Head ornate with two small horns truncate at apices situated almost at base of antennae. Scape deeply wrinkled to middle of length, smooth from there. Prothorax as broad as long, cylindrical, strongly rugose basally. Scutellum broad, short, rounded at apex. Elytra sinuate and broader at base than at apex, which is rounded, humeral angles prominent, entire surface punctate more strongly so on basal fourth. In Buquet collection from Guadeloupe." (Translation of the original description.)

### **Trestonia fulgurata** Buquet

*Trestonia fulgurata* Buquet, in Thomson, Arc. Nat., 1859, p. 48.

"General color ashy-gray, front of head pale yellow, prothorax varied with fulvous and gray, with a slightly distinct whitish spot on each side toward base. Elytra each toward each lateral border with a fulgural black straight line a little before middle, which attains neither the suture nor the side margin, this line is preceded by a very confused longitudinal band of white which recurves and follows indistinctly along the margin to below the humeral angles. Head smooth, with a rather deep excavation at middle. Prothorax as wide as long, uneven behind, without apparent punctation. Scutellum rather large, rounded at apex. Elytra four times as long as prothorax, broad at base, which is feebly sinuate, punctate on basal fourth, humeral angles very prominent, a little straighter and rounded at apex. Legs and body beneath covered with short pubescence, without apparent punctation. In collection of Count Mniszech from Guadeloupe." (Translation of the original description.)

### **APOCOPTOMA** Thomson

*Apocoptoma* Thomson, Arch. Ent., 1, 1857, p. 186, 326.

Closely allied to *Trestonia* in body form and maculation; it differs from this genus in the following characters: front without macula, less narrowed above; pronotum entirely armed; elytra more broadly rounded at apices; scape less robust, attaining apical third of pronotum; and femora less robust.

Moderate-sized, elongate-oblong, cylindrical, rather slender; piceous and dark reddish-brown; elytra with a black apical macula. Head with front feebly elongate,

sides very slightly widened to lower margin of eye, then gradually narrowed to epistoma; gena feebly elongate; eye with lower lobe broadly oblong-ovate, two-thirds again as high as gena; antennal tubercles prominent, well separated, in female with a short, robust, subacute tooth. Pronotum transverse, sides nearly straight, nearly unarmed, base and apex subequal in width; apical sulcus slightly arcuate at middle, basal sulcus oblique laterally; disk rugose. Scutellum transverse. Elytra with sides nearly parallel to apical quarter, thence narrowed gradually to apices, which are separately broadly rounded, disk on basal half densely punctate, punctures finer apically, basal gibbosity feebly elevated; humeri slightly prominent, anterior margin arcuate, a little oblique, angle with an obtuse tubercle. Prosternum simple, widened gradually posteriorly; mesosternal process rather narrow, slightly widened apically, apex truncate. Legs short; procoxae globose, unarmed in female; femora moderately robust, strongly clavate from basal third. Antennae much longer than body (in only specimen seen the antennal segments were wanting from fifth), fimbriate beneath; scape rather robust, attaining apical third of pronotum, moderately clavate from basal third, feebly grooved at base; third segment straight, cylindrical, one-half longer than first, fourth distinctly shorter.

GENOTYPE: *Apocoptoma chabrillacii* Thomson, by monotypy.

### *Apocoptoma chabrillacii* Thomson

#### PLATE XVI, FIGURE 14

*Apocoptoma chabrillacii* Thomson, Arch. Ent., 1, 1857, p. 186. Lacordaire, Gen. Col., IX, 1872, p. 686.

*Trestonia chabrillacii* Thomson. Buquet, in Thomson, Arc. Nat., 1859, p. 46, pl. 5, f. 1.

FEMALE. Elongate-oblong, cylindrical, rather robust; dark reddish-brown, nearly piceous, elytra distinctly paler; sparsely pubescent as follows: Head brownish, variegated with ashy; front uniformly pale fulvous without maculae. Pronotum brownish pubescent, as base and toward sides hoary. Scutellum brown pubescent, very narrowly margined with ashy on sides. Elytra sparsely hoary pubescent, slightly varied with brownish, with scattered, indistinct maculae of denser hoary pubescence; behind apical third of each elytron a large, rounded, velvety black macula which is interrupted at center and posteriorly with fulvous, from this macula near suture a black line extends posteriorly, expanding into a macula at very apex. Body beneath reddish-brown to dark reddish-brown, covered with brownish pubescence, laterally whitish; abdomen brownish pubescent medially, laterally with broad vittae of thin white pubescence; tinged irregularly with brownish. Legs dark reddish-brown, covered with brown pubescence. Antennae reddish-brown, base of scape nearly piceous; scape with brownish-fulvous pubescence, from third segment all segments thinly pale gray pubescent, the extreme apices brownish.

Head above alutaceous; front and gena alutaceous, with a few coarse punctures. Pronotum with a very feeble obtuse tubercle behind middle; apical sulcus deep, nearly straight, basal sulcus narrow, deep and oblique laterally; disk transversely rugose. Scutellum transverse; sides nearly straight, feebly oblique, apex rounded. Prosternum simply rounded, moderately wide, feebly widened posteriorly; fifth



sternite nearly twice length of fourth, at apex feebly, triangularly impressed, apical margin rather deeply emarginate.

LENGTH 20.5 mm.; width 6.25 mm.

*Type locality*.—Brazil.

*Distribution*.—Brazil.

BRAZIL: ♀; no locality data; [M.C.Z.].

### BACURIS Gounelle

*Bacuris* Gounelle, Bull. Soc. Ent. France, 1906, p. 274.

*Bacuris* is remarkable for the depressed form of the body, the large eyes, and the convexity of the front; moreover, the elytra are granulate-punctate, expanded posteriorly, the humeri not oblique anteriorly, and the genae are strongly transverse.

Moderate-sized, elongate-oblong, subdepressed. Head with front feebly elongate, slightly convex, sides nearly straight, very slightly widened below eyes; genae strongly transverse; eye with lower lobe large, rectangular, more than three times as long as gena; antennal tubercles distant, prominent, not armed. Pronotum transverse, base slightly narrower than apex, sides with a short, robust tooth; disk slightly uneven. Scutellum transverse. Elytra depressed on apical half, sides widened from just before middle, apices separately rounded; disk basally with granulate-punctures; humeri somewhat prominent, anterior margin broadly arcuate, not oblique, angle simply rounded. Prosternum simple, widened behind middle; mesosternal process narrow, widened apically, apex deeply emarginate. Fifth sternite longer than fourth (female), apex emarginate on either side, medially with a short, broad, subacute process, before apex with broad, transverse impression. Legs very short; procoxae subglobose, unarmed; femora robust, gradually clavate. Antennae very slightly longer than elytra (female), proximally fimbriate beneath; scape short, robust, not attaining middle of pronotum, gradually clavate; third segment straight, cylindrical, slightly expanded apically, one-fifth longer than first; fourth equal to scape, rest gradually shorter.

GENOTYPE: *Eudesmus sexvittatus* Bates, by monotypy.

### *Bacuris sexvittatus* Bates

PLATE XVII, FIGURE 4

*Eudesmus sexvittatus* Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 181.

*Bacuris sexvittatus* Bates. Gounelle, Bull. Soc. Ent. France, 1906, p. 274, f.

FEMALE. Elongate-oblong, subdepressed; head and pronotum fuscous, elytra dark brown. Head above fulvous pubescent, with a narrow, dark brown vitta either side of middle joining on vertex; front thinly yellowish pubescent. Pronotum ochraceous with four dark brown vittae either side, one either side of middle narrow, contiguous at base, second broad, slightly curved at middle, third narrow, above

lateral tubercle, not attaining apex, and fourth below lateral tubercle, broadest basally, between third and fourth dark brown vittae the pubescence is fulvous. Scutellum fulvous, slightly darker on basal margin. Elytra brownish-ochraceous pubescent, with a common, dark velvety-brown vitta at suture which tapers and terminates behind middle, either side of this vitta, but joining it at base, a very narrow, dark brown vitta which becomes attenuate apically and attains only basal third; beneath humeri a short, broad, dark brown vitta to middle; a long, broad, whitish vitta from each humerus to near apex of elytra and a shorter, white one from brown humeral vitta to apex, the remaining surface with short, irregularly placed, whitish vittae. Beneath reddish-brown, white pubescent; metepisternum ochraceous; mesepimeron, metepisternum, and metasternum laterally pinkish; sternites laterally with a narrow pale ochraceous vitta, with an irregular, more or less elongate, brownish macula on each sternite, placed in the vittae. Legs reddish-brown; femora above ochraceous, pro- and mesofemora with a small, dark brown macula at apex, metafemora with a large, brown macula at middle, below whitish; tibiae whitish and ochraceous pubescent, fasciate medially with brown. Antennae reddish-brown; scape whitish pubescent at apex, broadly and irregularly fasciate with brown; remaining segments brown, third, fourth, and fifth above at base very narrowly whitish, below more broadly so, from sixth to eleventh broadly white basally, increasingly so to apex.

Head with front alutaceous, with well-spaced, coarse punctures interspersed; genae feebly, transversely rugose. Pronotum with apical sulcus deep laterally and curved, obsolete medially, basal sulcus wide, shallow, oblique, laterally meeting apical sulcus; lateral tubercles feebly elevated, with a short, robust tooth; disk (particularly at middle) and base of sides with a few punctate-granules which bear hairs. Scutellum transverse, sides and apex broadly arcuate. Elytral disk on basal fourth with moderately spaced punctate-granules, surface to middle coarsely punctate, thence to apex punctures finer and obsolete. Profemora feebly rugose basally; tibiae robust. Antennae with tenth segment attaining apices of elytra.

LENGTH 18 mm.; width 6 mm.

*Type locality*.—Ega, Brazil.

*Distribution*.—Amazon region of Brazil.

BRAZIL: ♀, Santarém, June, 1919; (S. M. Klages); [C.M.].

### ECTHOEA Pascoe

*Ecthoea* Pascoe, Trans. Ent. Soc. London (2), iv, 1858, p. 244. Thomson, Syst. Ceramb., 1864, p. 391. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 309 (sep. p. 195). Lacordaire, Gen. Col., ix, 1872, p. 668, 685.

*Talasius* Buquet, Arc. Nat., 1859, p. 99.

Distinguished at once by the tubercles on the front and by the two processes on the apices of each elytron as well as by the rectangular shape of the body.

Moderate-sized, elongate-oblong, rather slender, cylindrical; head with front strongly transverse, distinctly narrowed from below the eyes, each side with a

prominent tubercle in male, in female these are indistinct, vertex strongly excavated; genae broad but vertical; eye with lower lobe transverse, rhomboidal, about two-thirds height of gena; antennal tubercles prominent, widely separated, with a long, acute spine at apex in male, in female feebly armed. Pronotum feebly transverse, apex slightly wider than base, each side with two small tubercles: disk uneven. Scutellum strongly transverse. Elytra feebly attenuate to apices, each apex deeply emarginate, forming two or more less distinct processes; basal gibbosity prominent, covered with granules, entire disk punctate, base usually with a few granules to middle; humeri slightly prominent, with a small tubercle at angle. Prosternum strongly expanded before middle; mesosternal process elongate, narrow, feebly widened apically, apex slightly emarginate. Legs short; procoxae subglobose; femora robust, strongly clavate. Antennae slender, slightly longer than body in female, one and one-half times body length in male; scape short, strongly clavate on apical two-thirds; third segment one-half longer than first; fourth slightly shorter, rest subequal, eleventh longer than tenth in male.

GENOTYPE: *Cerambyx quadricornis* Olivier, by monotypy.

### ***Ecthoea quadricornis* Olivier**

PLATE X, FIGURE 12

*Cerambyx quadricornis* Olivier, Encycl. Meth., Ins., VII, 1792, p. 466; Ent., IV, 67, 1795, p. 97, pl. 20, f. 158.

*Ecthoea quadricornis* Olivier. Bates, Ann. Mag. Nat. Hist., (3), XVI, 1865, p. 309 (sep. p. 196); Biol. Centr.-Amer., Col. V, 1880, p. 127, pl. 9, f. 14. Lacordaire, Gen. Col., IX, 1872, p. 685. Vayssiere, Bull. Soc. Ent. France, XL, 1935, p. 160.

*Talassius quadricornis* Olivier. Buquet, Arc. Nat., 1859, p. 100, pl. 5, f. 6.

*Lamia bispinator* Fabricius, Syst. Eleuth., II, 1801, p. 292.

*Trachysomus faunus* Erichson, Arch. Naturg., XIII, 1847, p. 148.

MALE. Elongate-oblong, rather slender, cylindrical; varying from light reddish-brown to fuscous. Head above and on lower part of front sparsely covered with pale green scales or pubescence; front above creamy white pubescent; vertex light brown, with a transverse, arcuate line and a median, more or less triangular macula, velvety dark brown, the two markings connected and forming a letter 'T'. Pronotum densely creamy-white pubescent, slightly variegated and tinged with fulvous; on basal half each side of middle a stripe of dark velvety brown which is sometimes reduced to an ovate basal macula; sides covered with pale green scales and white pubescence. Scutellum white, or variegated with fulvous and white pubescence. Elytra sparsely covered with pale green scales and pubescence, apical one-third creamy-white, along suture and on apical portion irregularly vittate with fulvous; across apical one-third a series of short, irregular vittae of dark velvety brown, some of which are occasionally prolonged towards apex and at extreme base each side of scutellum a macula of similar color. Body beneath and legs reddish-brown, femora darker; covered with rather long, white pubescence; sterna laterally tinged with greenish and fulvous; legs tinged with greenish; abdomen sparsely fulvous pubescent, variegated with white or entirely white; each sternite with five whitish maculae or streaks, two lateral, two sublateral, and a smaller one at middle,

the lateral ones projecting, especially those on apical sternites. Antennae dark reddish-brown, base of third and fourth segments narrowly, of fifth, sixth, and seventh broadly, and eighth to eleventh entirely, creamy or pale reddish; sparsely covered with whitish or fulvous pubescence, the dark portions dark brown pubescent, variegated with paler; scape green scaled or pubescent, broadly tinged above towards apex with brown.

Head minutely, densely alutaceous, and rather coarsely, sparsely punctate; front each side of middle with a prominent tubercle which terminates in a flattened, upturned, acute horn, above running from each antennal tubercle is a distant, transverse elevation, surface minutely, densely alutaceous and coarsely punctate; vertex on each side above with an obtuse knob or short horn; genae slightly higher than wide, oblique, minutely, densely alutaceous and with a number of coarse punctures. Pronotum on each side with two tubercles, one before, the other behind, the middle, the anterior tubercle larger and placed a little lower on the sides than the posterior one; apical transverse sulcus obsolete, visible only toward sides, basal one distinct, straight, joined to the lateral oblique ones; disk with a transverse row of five prominent, subconical tubercles before the middle, the median one less distinct, near base on each side of middle a small subglobose tubercle, entire surface medially and anteriorly finely, deeply punctate. Scutellum with sides straight, feebly oblique; apex broad, slightly rounded. Elytra with sides straight, feebly attenuate to apices, each of which is more or less deeply emarginate so that two processes are formed on each, a smaller one acute, at suture, the outer one obtuse, broad, somewhat flattened; basal gibbosity small, narrow, but very prominent, covered with coarse, irregular granules, entire disk uniformly, finely, sparsely punctate (along suture more coarsely so) and with a few scattered granules, some of which occasionally form longitudinal rows near middle, at apical one-third a cluster of unequal tubercles and elevations, one, more posterior, larger and subglobular; humeri slightly prominent, anterior margin feebly arcuate, slightly oblique, angle with a small glabrous tubercle, behind which are a number of irregularly placed granules. Fifth sternite a little longer than fourth, apex indistinctly emarginate medially. Procoxae tumid anteriorly; profemora not rugose; mesotibiae more strongly expanded than others. Antennae with scape short, slender, straight, clavate on apical two-thirds, not grooved nor robust basally; third segment one and one-half times as long as first, slightly arcuate towards the sides of body; fourth slightly shorter than third, rest subequal, feebly diminishing in length; eleventh more elongate, acicular.

FEMALE. More robust; head with frontal tubercles, vertex and antennal tubercles unarmed, the latter are more slender as well; fifth sternite distinctly impressed medially; antennae only slightly longer than body, scape more slender, feebly clavate, segments from fourth gradually shorter.

LENGTH 13.5-20 mm.; width 4.2-7 mm.

*Type locality.*—Suriname.

*Distribution.*—Northern South America.

BRAZIL: 5 ♂, 6 ♀; Santarem, May to July, 1919; (S. M. Klages); [C.M.]. ♂; L. Macura, Pará; [C.M.].

FRENCH GUIANA: ♀; Cayenne; [M.C.Z.].

TRINIDAD: ♀; St. Benedict Mt., Tunapuna, September 6, 1923, "cashew girdler"; (M. G. Netting); [C.M.]. 4 ♂; no locality, March 31, 1938, injuring cacao; (J. A. Hart); [U.S.N.M.].

**CHERENTES** Gounelle

*Cherentes* Gounelle, Bull. Soc. Ent. France, 1906, p. 273.

Distinct from all other genera in the convexity of the front and by the peculiar punctation of the upper surface of the body, each puncture bearing a single scale at its center. Other characteristics are the antennae with third and fourth segments subequal, the third slightly arcuate, not at all fimbriate beneath, and the unique striped pattern of the entire upper surface.

Small-sized, elongate-oblong, rather slender, cylindrical; fuscous. Head with front slightly transverse, narrowed below eyes, longitudinally convex; genae elongate; eye with lower lobe small, about two-thirds height of gena, narrowly oblong; antennal tubercles feebly prominent, widely separated, armed at apex with a very small tooth. Pronotum transverse, apex wider than base, sides with a minute tubercle behind middle. Scutellum slightly transverse. Elytra widened behind middle, apices separately rounded; disk with an obsolete basal gibbosity, entire surface sparsely punctate; humeri slightly prominent, anterior margin rounded, oblique, angle without a tubercle. Prosternum simple, gradually narrowed anteriorly; mesosternal process elongate, feebly narrowed apically, apex slightly rounded. Fifth sternite slightly longer than fourth, apex emarginate in male, broadly emarginate and feebly impressed medially in female. Legs short; procoxae subglobose, unarmed; femora short, robust, clavate. Antennae slightly longer than body in male, slightly shorter in female, not fimbriate beneath; scape slightly robust, attaining apical quarter of pronotum, feebly clavate apically; third and fourth subequal, slightly longer than first, third very feebly arcuate, rest gradually shorter, including the eleventh.

GENOTYPE: *Eudesmus niveilateris* Thomson, by monotypy.

**Cherentes niveilateris** Thomson

PLATE XVII, FIGURE 5

*Eudesmus niveilateris* Thomson, Physis, II, 1868, p. 70. Bates, Biol. Centr.-Amer., Col. v, suppl., 1885, p. 369.

*Cherentes niveilateris* Thomson. Gounelle, Bull. Soc. Ent. France, 1906, p. 273, f.

The striped pattern of the upper surface and the irregularly shaped white markings on the abdomen are sufficient to distinguish this species from all others.

MALE. Elongate-oblong, rather slender, cylindrical; fuscous, very densely covered with rose-colored scales, somewhat variegated with white. Head above with a narrow, brown vitta each side of middle which extends at least half way down the front, and a broader but less distinct, oblique vitta behind each eye; gena vittate rather narrowly with brown along frontal suture. Pronotum each side with two oblique, brown vittae, one continuing the post-ocular of head to scutellum, the other from apex below sides to base close to scutellum, laterally and basally marked with

darker, the two more or less coalescent; sides of prothorax obliquely and broadly chalky-white or yellowish-white. Scutellum roseate, tinged with light brown. Elytra with a light brown and fuscous vitta from base each side of scutellum along suture to apical third, where it divides, one portion continuing to apex narrowly along sutural beading, the other running obliquely towards sides of apex, becoming wider, then narrowing again; from humeri another broader vitta of dark brown and fuscous extends in an arc sublaterally to apical third, sides beneath this chalky or yellowish-white; apically a short, arcuate, white streak. Body beneath reddish-brown, rather sparsely covered with hoary and fulvous pubescence, on abdomen somewhat variegated with rose; an oblique, broad, brown band from procoxae towards sides of elytra, behind which is a chalky streak from sides of mesosternum across base of metepisternum; metasternum each side posteriorly with a large, triangularly, chalky-white macula; abdomen with a small, chalky-white, macula on sides of first sternite and a large one, irregular in shape, common to the second and third sternites laterally, anterior to which is a dark brown area. Legs fuscous, covered sparsely with roseate and hoary variegated pubescence. Antennae reddish-brown, uniformly covered with light brown and fulvous pubescence.

Head with entire surface finely punctate, each puncture bearing a fine scale in its center; vertex declivous. Pronotum with apical transverse sulcus wanting, basal one obsolete medially, strongly impressed at middle of each side, thence extending obliquely forwards to before lateral tubercle; disk nearly smooth, its surface finely punctate, each puncture with a minute scale at its center, each side obliquely tumid, tumescence often feeble. Scutellum with sides straight, apex rounded. Elytra with sides slightly narrowed to before middle, then gradually expanded to before apex, disk finely, sparsely punctate, each puncture with a single scale at its center.

FEMALE. A little more robust; antennal tubercles unarmed; sculpturing of pronotum and elytra less prominent; fifth sternite broadly emarginate at apex, feebly impressed medially, fourth sternite at apex broadly and strongly emarginate; antennae a little shorter than body, scape more slender, scarcely clavate.

LENGTH 7.5-9.3 mm.; width 2.3-2.8 mm.

*Type locality*.—Brazil.

*Distribution*.—Brazil, Paraguay, and Peru. (Thomson and Bates also record its occurrence in Mexico).

PARAGUAY: ♀; Horqueta, January 10, 1934; (A. Schulze); [L. Lacey].

PERU: ♂; Rioja, San Martin, November 25, 1936; [L. Lacey].

### CLAVIDESMUS Dillon and Dillon

*Clavidesmus* Dillon and Dillon, Sci. Publ. Reading Mus., v, 1945, p. x.

Somewhat related to *Eudesmus* but distinct in pronotum having disk nearly smooth, not tuberculated, sides with a distinct (but quite small) tubercle; antennae much shorter than body, about three-quarters body length, with third segment abruptly clavate from basal third, one-fourth longer than first, fourth about one-half length of

third; front much narrowed below; eye with lower lobe strongly removed from frontal margin, much shorter than gena; and the coloration is different, vertex lacking the short, brown vittae, and the pattern of markings on elytra is entirely distinct; moreover, these latter organs are rounded together, not separately.

Moderate-sized, elongate-oblong, robust, cylindrical. Head with front transverse, sides distinctly tapering to epistoma; gena elongate, broader than lower lobe of eye; eye with lower lobe ovate, small, about two-thirds genal height, removed from frontal margin; antennal tubercles feebly prominent, distant, with a short, broad tooth at apex in male. Pronotum transverse, base very slightly narrower than apex, with a minute but distinct tubercle laterally; disk smooth. Scutellum transverse. Elytra distinctly widened behind middle, apices together rounded; surface simply punctate, without basal gibbosity; humeri feebly prominent, very feebly, obtusely tubercled at angle. Prosternum simple; mesosternal process narrow, slightly widened to apex, which is emarginate at middle. Legs short; procoxae globose, unarmed; femora robust, clavate. Antennae short, only about three-quarters as long as body; scape short, gradually clavate; third segment one-fourth longer than first, abruptly and strongly clavate from basal third in male, fourth straight, one-half as long as third, rest much shorter.

GENOTYPE: *Eudesmus heterocera* Buquet.

#### KEY TO SPECIES

- Pronotum with median line entirely broadly yellow; elytra bifasciate; legs densely yellow pubescent ..... *heterocera*  
 Pronotum with a yellow macula at middle and a smaller one anterior to it; elytra each trimaculate; legs glabrous, shining ..... *metallicus*

### **Clavidesmus heterocera** Buquet

#### PLATE XVII, FIGURE 6

*Eudesmus heterocera* Buquet, Rev. Zool., (4), II, 1852, p. 344.

FEMALE?. Elongate-oblong, robust, cylindrical; black, everywhere grayish-brown pubescent. Head with three yellow vittae, one at middle from occiput to just below antennal tubercles on front, one at sides behind lower lobe of eye, very broad basally; front and genae variegated very strongly with yellow. Pronotum with five yellow vittae, one medially very broad, one either side just above lateral tubercles, very narrow, and a broad one either side just below lateral tubercles. Scutellum yellow, with a semi-glabrous line medially. Elytra basally strongly yellow, variegated to middle with scattered, indistinct, yellow maculae; each elytron with two oblique, rather narrow fasciae, one at middle, the other on apical fourth, contiguous at suture, their outer margins very irregular. Beneath black, densely gray-yellow pubescent; meso- and metasternum and sternites laterally indistinctly yellow maculate. Legs black or piceous, gray-yellow pubescent, femora more yellow above, tarsi very thinly gray-yellow pubescent. Antennae black or piceous; scape, third, except ventral half, fifth, seventh, ninth, tenth, and eleventh segments gray-

brown pubescent, bases of tenth and eleventh very narrowly yellow pubescent, fourth, sixth, and eighth segments yellow pubescent, with only extreme apices gray-brown.

Head above finely alutaceous and densely, finely punctate; front finely, densely punctate, with coarse, sparse punctures interspersed; genae densely punctate and feebly rugose. Pronotal apical and basal sulcus shallow and feebly curved; disk with coarse, well-separated punctures, on base and on lateral tubercles a few punctate-granules which bear setae. Scutellum transverse, sides very broadly rounded. Elytra with entire surface finely, densely punctate, basal half with coarse, deep, well-spaced punctures interspersed, thence to apices these punctures smaller but distinct, well separated; humeri slightly prominent, anterior margin broadly arcuate, angle with a feeble, obtuse tubercle. Fifth sternite about one-quarter longer than fourth, at apex strongly emarginate, with a broad, deep, triangular impression medially. Pro-femora short, robust, abruptly clavate from basal fourth, which is rugose, meso- and metafemora slightly less robust, not rugose basally; protarsi somewhat dilated. Antennal scape short, reaching only to pronotal apex, cylindrical, feebly and gradually clavate, with one or two moderate grooves at base on each side; eleventh short and pointed.

LENGTH 20 mm.; width 7 mm.

*Type locality*.—Brazil.

*Distribution*.—Southeastern Brazil.

BRAZIL: ♀; Rio de Janeiro, Dec.; [C.M.].

### **Clavidesmus metallicus** Thomson

*Eudesmus metallicus* Thomson, *Physis*, II, 1868, p. 70.

"Male. Elongate, black, metallic, shining. Head strongly and sparsely punctate; antennae with third segment slender at base, then strongly clavate; front very finely armed, concave. Prothorax cylindrical, laterally just behind middle with a minute tubercle; disk with a small macula at middle and anteriorly a smaller one yellow; beneath a fascia-like yellow macula, rather finely and very sparsely punctate. Elytra elongate, parallel, to behind middle punctate, punctures coarse at base, sparse; with six yellow maculae (two anterior longitudinal, sutural, two postmedian, transverse, semicircular, two posterior); black pubescent behind; apices rounded. Sternum laterally longitudinally yellow; abdomen smooth, yellow-maculate laterally; legs black, shining. Length  $16\frac{1}{2}$  mm.; width  $5\frac{1}{2}$  mm. Cayenne." (A translation of the original description.)

One specimen (♂?), from Santarem, Brazil was seen in the collection of the Carnegie Museum but it was so rubbed that a re-description was impossible.

### **LACHAERUS** Thomson

*Lachaeus* Thomson, *Physis*, II, 1868, p. 71. *Lacordaire*, *Gen. Col.*, IX, 1872, p. 668, 683.



Closely related to *Eudesmus*, differing chiefly in having front more strongly transverse; antennal tubercles set lower on the head, the horns of male inconspicuous, not erect, directed slightly caudad; eye nearly entirely divided into two parts, lower lobe slightly transverse; pronotum with a median flattened callosity instead of a tubercle; humeri less prominent; and antennae with scape more robust, more strongly clavate on apical half, third segment swollen on apical third in female, remaining segments in female much shorter.

Moderate in size, elongate, oblong-ovate, rather robust, more or less cylindrical. Head with front transverse, sides strongly narrowed below from eye; genae vertical, broad; eye with lower lobe slightly transverse, about half as tall as gena, connected to upper lobe only by a narrow isthmus, upper lobes widely separated from one another; antennal tubercles distant, armed in male with short, robust teeth which are curved slightly caudad. Pronotum transverse, apex distinctly wider than base, sides with a small tubercle behind middle, ending in a short, blunt process; disk with a broad, flat, shining callosity at middle, on each side of which are two small, shining tubercles. Scutellum transverse. Elytra gradually widened behind middle, apices separately rounded; disk moderately punctate at base, with gibbosities wanting or nearly so; humeri feebly prominent, with a large, obtuse tubercle at angle. Prosternum simple, strongly widened behind middle of procoxae; mesosternal process narrow, sides nearly parallel, apex subtruncate. Legs short; procoxae globose, unarmed; femora robust, strongly clavate from basal third; protarsi dilated in male and somewhat so in female. Antennae in male nearly as long as body, in female about two-thirds body length; scape robust, strongly clavate on apical half, depressed, attaining apical quarter of pronotum; third segment slightly longer than first, elliptical, much swollen, rest gradually shorter, eleventh a little longer than tenth in male; in female third segment gradually clavate, more strongly so on apical third, rest of segments gradually shorter, including eleventh.

GENOTYPE: *Eudesmus seminivorus* Buquet, by monotypy.

### **Lachaerus seminivorus** Buquet

PLATE XVII, FIGURE 3

*Eudesmus seminivorus* Buquet, Rev. Zool., 1852, p. 345.

*Lachaerus seminivorus* Buquet. Thomson, Physis, II, 1868, p. 71. Lacordaire, Gen. Col., IX, 1872, p. 683.

MALE. Elongate-oblong, rather robust, cylindrical; rather dark reddish-brown, fairly densely covered with bright fulvous pubescence, variegated with hoary. Pronotum with a large, central, shining area, from which projects on each side two shining lines, the posterior one distinctly broader; each side basally with a fine, white vitta. Scutellum largely brown. Elytra with basal three-fifths densely covered with white tomentum, which is interrupted somewhat behind base, however, by a number of places where the tomentum is thin, permitting the under-surface to show through, at extreme base around scutellum brownish pubescent; apical two-fifths fulvous pubescent, with irregular, transverse, raised lines of white,

yellowish, and dark brown pubescence. Body beneath light reddish-brown, white pubescent medially, on sides densely white tomentose; abdomen dark reddish-brown, paler medially, rather sparsely white pubescent, each side broadly variegated with bright yellow and brown, fourth and fifth sternite entirely variegated with bright yellow. Legs reddish-brown, covered with dark brown pubescence, femora and tibiae white annulate, metatibiae entirely white on apical half; tarsi with bases of first three segments often white or pale pubescent. Antennae light reddish-brown, third segment dark apically; sparsely hoary pubescent, apices of segments from fourth fulvous, that of third segment fuscous, pubescent.

Head above nearly smooth, minutely, sparsely punctate; front between antennal tubercles with a low double tubercle, and below center a broader, but very feebly elevated, tubercle each side of middle, entire surface minutely, sparsely punctate, with a few fine punctures intermingled; gena finely, evenly punctate. Pronotum behind middle with a small, subacute tubercle, before middle a larger obtuse one; apical and basal transverse sulcus rather deep and broad, both nearly straight. Scutellum transverse, sides straight, oblique; apex arcuate. Elytra more or less parallel-sided basally, from middle arcuately expanded; disk coarsely, somewhat roughly punctate but punctures mostly concealed by pubescence; humeri slightly prominent, anterior margin strongly arcuate and oblique, angle with a feeble tubercle, somewhat behind angle a rather broad, rounded elevation. Fifth sternite much longer than fourth, apex broadly emarginate. Profemora subcapitate, without rugosities but with a short, longitudinal carina basally on posterior face. Antennae fimbriate only on apical two-thirds of third segment and there very densely so; scape slightly arcuate, short, attaining apex of pronotum, strongly clavate apically, compressed internally, not rugose basally; third segment one-third longer than scape, broadly elliptical; fourth a little more than half as long as first, rest gradually shorter, except eleventh segment, which is slightly longer than tenth.

Female. More robust; antennal tubercles with tooth much smaller; fifth sternite deeply emarginate along apical margin and surface at apex with a distinct, triangular impression.

LENGTH 10-14 mm.; width 3.5-4.5 mm.

*Type locality*.—Brazil.

*Distribution*.—Southeastern Brazil.

BRAZIL: ♂; Bahia; [A.N.S.P.]. 2 ♀; Rio de Janeiro, October-November; [C.M.].  
♀; Nova Friburgo; [M.C.Z.].

## EUDESMUS Serville

*Eudesmus* Serville, Ann. Soc. Ent. France, iv, 1835, p. 82. Buquet, Rev. Zool., (2), iv, 1852, p. 343. Thomson, Syst. Ceramb., 1864, p. 102. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 180 (sep. p. 191); Biol. Centr.-Amer., Col., v, 1880, p. 127. Lacordaire, Gen. Col., ix, 1872, p. 668, 681.

*Larvica* Thomson, Class. Ceramb., 1860, p. 43, 71; Syst. Ceramb., 1864, p. 391; Physis, II, 1868, p. 69.

Distinguished by the strongly and regularly swollen third antennal segment of male, elliptical in outline; the cylindrical form

of body; elytra simply punctate on disk, apices separately rounded; front slightly transverse; and pronotal disk uneven, distinctly but not coarsely tuberculate, sides minutely tuberculate.

Moderate-sized, elongate-oblong, rather robust, cylindrical. Head with front feebly transverse, sides gradually narrowed below; genae elongate, not broader than eye; eye with lower lobe oblong-ovate or oblong, subequal in height to gena in male, occasionally shorter than gena in female, not removed from frontal margin; antennal tubercles robust, moderately prominent, with a short, very robust tooth at apex in male, nearly unarmed in female. Pronotum transverse; apex slightly wider than base, with a very small tubercle behind middle at sides; disk tuberculate. Scutellum strongly transverse. Elytra with sides slightly widened behind middle, apices separately rounded; basal gibbosity wanting or nearly so, disk simply punctate; humeri prominent, angle with a feeble tubercle. Prosternum simple; mesosternum slightly wider posteriorly, emarginate at apex. Fifth sternite in female triangularly impressed medially, simple in male. Legs short; procoxae subglobose, at most with a very feeble tubercle anteriorly in male; femora robust, strongly clavate. Antennae in male one and one-fourth to one and one-half times body length, in female as long as body; scape gradually clavate; third segment one-fourth longer than scape, in male strongly swollen, broadly elliptical, in female simple; fourth slightly longer than scape, cylindrical, rest slightly shorter.

GENOTYPE: *Eudesmus grisescens* Serville, designated by Thomson, *Systema Cerambycidae*, 1864, p. 102.

#### KEY TO SPECIES

1. Scutellum blackish ..... *fascinus*  
Scutellum pale ..... 2
2. Pronotal disk with a distinct pair of dark vittae medially ..... 3  
Pronotum without vittae ..... 4
3. First abdominal sternite each side with a large, dark brown, irregular macula;  
third antennal segment of male elliptical ..... *ferrugineus*  
First abdominal sternite not dark brown maculate at sides; third segment of  
antenna in male rounder, less elliptical ..... *rufifactus*
4. Elytra each near suture before apex with a small, distinct irregular, triangular,  
dark brown, linear macula ..... *grisescens*  
Elytra without such a macula ..... *diopites*

### ***Eudesmus ferrugineus* Thomson**

#### PLATE XVII, FIGURE 9

*Larvica ferrugineus* Thomson, *Class. Ceram.*, 1860, p. 72.

*Eudesmus caudalis* Bates, *Ann. Mag. Nat. Hist.*, (3), xvi, 1865, p. 180.

The head with two, and the pronotum with four, dark brown vittae; and the elytral median hoary fascia narrowed internally, irregular in outline, are the chief distinguishing characteristics of the species.

**MALE.** Elongate-oblong, cylindrical, rather robust; dark reddish-brown, covered rather densely with ferruginous, fulvous, and hoary variegated pubescence. Head with two brown vittae on vertex, one each side of middle. Pronotum with four dark brown vittae, one each side of median line, feebly sinuous, sometimes attenuate apically, and one towards each side broad, slightly oblique, and irregularly interrupted, especially anteriorly; sides of prothorax above irregularly, obliquely streaked with ferruginous and hoary pubescence, below ochraceous, basally with a short, dark brown, vittiform macula. Scutellum largely hoary and fulvous pubescent. Elytra at extreme base variegated with ferruginous and fulvous, irregularly vittate with dark brown, thence gray-brown, interrupted by several, indistinct, interrupted, ferruginous vittae, especially towards suture; at middle an oblique, rather narrow fascia of hoary pubescence, more or less outlined and variegated with ferruginous, beginning at side margin below humerus, where it is indistinct and extending nearly to middle of suture, its posterior border extends from apical one-third of side margin anteriorly to near middle of disk, then posteriorly obliquely towards suture; a similar but narrower band at apical one-fifth, the space between the two fasciae and the apical region dark brown, finely and irregularly vittate with ferruginous and hoary. Body beneath dark reddish-brown, densely covered with fulvous and hoary variegated pubescence, tinged here and there with ferruginous, especially laterally; mesepisternum and first abdominal sternite irregularly maculate with dark brown; remaining sternites on each side with two rows of fine, not very distinct, hoary maculae, one marginal, the other at middle of the sides. Legs dark reddish-brown, the tarsi somewhat paler; covered with variegated pubescence as on upper surface of body. Antennae reddish-brown, scape nearly fuscous, bases of segments from fourth pale yellowish; entirely covered with brown and hoary pubescence, scape variegated with fulvous, the pale bases of segments annulate with hoary.

Head minutely, densely, and sparsely, finely punctate; front feebly wider than long, gradually narrowed below, broadly concave between antennal tubercles, minutely, densely punctate and with a large number of coarse punctures interspersed; genae broad, slightly elongate, punctation as on front; eye with lower lobe oblong-ovate, subequal in height to gena; antennal tubercles robust, prominent, well separated, armed at apex with a broad, rounded tooth. Pronotum transverse, slightly wider at apex than at base, sides irregular, nearly straight, armed with a small, tooth-like tubercle behind middle; disk at middle with a long, broad, oval, feebly elevated tubercle which has a fine impressed line basally, each side with three tubercles arranged in an inverted triangle, the most lateral one largest, the most basal one transverse, entire surface sparsely, rather coarsely punctate. Scutellum strongly transverse; sides straight, oblique; apex broadly rounded, notched or impressed medially. Elytral disk with an obsolete basal gibbosity, coarsely, rather densely punctate to middle, thence to apex more finely so; humeri prominent, anterior margin rather strongly arcuate. Mesosternal process elongate, rather narrow, slightly wider posteriorly, apex deeply emarginate at middle. Fifth sternite slightly longer than fourth, apex broadly, feebly rounded. Procoxae with a feeble tubercle anteriorly; profemora with a few, very feeble rugosities at base; all tibiae robust apically. Antennae one and one-fourth times as long as body, densely fimbriate only on underside of third, the fourth segment with a few fringing hairs, on other segments wanting; scape short, slightly surpassing apex of pronotum, robust,

slightly clavate from basal third, very feebly rugose on outer side at base; third segment one quarter longer than first, strongly tumid medially, elongate-oval in outline; fourth and following slightly longer than scape, eleventh acicular.

**FEMALE.** As in male, but front more strongly transverse; eye with lower lobe distinctly shorter than gena; antennal tubercles feebly elevated, more widely separated, unarmed; fifth sternite distinctly longer than fourth, apex emarginate at middle, with a narrow, triangular, median impression; tibiae not so robust; antennae as long as body, densely fimbriate only at apex of third segment, scape slender, third segment not tumid, cylindrical.

LENGTH 14-17.5 mm.; width 4.7-6.3 mm.

*Type locality.*—Cayenne interior (*ferrugineus*); Ega, Amazon region (*caudalis*).

*Distribution.*—The Guianas and Amazon region.

FRENCH GUIANA: ♂; Cayenne; [M.C.Z.].

BRITISH GUIANA: ♀; Tumatumari, Rio Potaro, April, 1912; [A.M.N.H.].

### ***Eudesmus rubefactus* Bates**

PLATE XVII, FIGURE 8

*Eudesmus rubefactus* Bates, Ann. Mag. Nat. Hist., (3) xvi, 1865, p. 180.

The chief distinctions between this and *E. ferrugineus* are the presence of only two dark vittae on pronotum, the broader elytral fascia, and the third antennal segment in male more ovate, less fusiform.

**MALE.** Elongate-oblong, robust, cylindrical; head dark reddish-brown, pronotum and elytra paler; covered with variegated ferruginous, gray, and dark brown pubescence. Head above with a narrow, dark gray-brown vitta either side of middle which converge on vertex. Pronotum medially at base and apex with irregular and indistinct, dark gray-brown maculae. Elytra at extreme base with dark brown pubescence predominating; before middle a broad, feebly oblique fascia to suture, which is very wide laterally, anteriorly extending nearly to humerus, posterior margin with a rather broad banding of dark brown made up of many elongate, indistinct, narrow maculae, on apical fourth a small, narrow, elliptical, dark brown macula on each elytron. Beneath reddish-brown, with variegated ferruginous, gray, and dark brown pubescence, middle of pro-, meso-, and metasternum gray, each abdominal sternite laterally with an indistinct dark brown macula which is margined either side with whitish. Legs dark reddish-brown, variegated with pubescence as on body; metatibiae with a broad, dark brown fascia medially. Antennae reddish-brown, basal one-third of third to eleventh segments pale yellowish, scape and second with variegated pubescence as in body, entire third and apical half of remaining segments dark brown pubescent, basal half from third grayish pubescent.

Head above finely alutaceous, with scattered, large, shallow punctures; front slightly transverse, sides strongly narrowed below eye, surface very finely punctate,

interspersed with well-spaced, coarse, deep punctures; genae elongate, finely, densely punctate, with a few coarse deep punctures; eye with lower lobe moderate, subquadrate, subequal to genae in height; antennal tubercles prominent, distant, with a short, robust tooth. Pronotum transverse; apex wider than base; sides nearly straight, with a feeble, dentate tubercle behind middle; apical sulcus curved at middle, basal sulcus curved medially and oblique laterally; disk with seven tubercles, one at middle, elongate, very feebly elevated, just before basal sulcus, three each side of middle arranged more or less in a triangle. Scutellum very transverse; sides broadly arcuate, oblique; apex broadly rounded. Elytra with sides nearly parallel to apical fourth, thence curved to apices which are separately rounded; base of each elytron subgibbose, basal half with coarse, deep, well-spaced punctures to middle, thence to apices punctures less dense and slightly finer; humeri prominent, anterior margin arcuate, feebly oblique, angle with a small, rounded tubercle. Mesosternal process narrow; fifth sternite about one-fourth longer than fourth, subtruncate at apex. Procoxae globose, unarmed; femora robust, clavate, profemora slightly more robust, very finely rugose at base; metatibiae dilated. Antennae slightly longer than body; scape robust, gradually clavate, not attaining middle of pronotum, not grooved basally; third segment broadly elliptical, equal to scape in length; fourth equal to third; remaining segments gradually shorter, except eleventh in which the accessory segment makes it longer than tenth; fimbriate slightly on first, fourth, and fifth, heavily on third, segments.

LENGTH 13.5 mm.; width 4.5 mm.

*Type locality*.—Ega.

*Distribution*.—Amazon region and the Guianas.

FRENCH GUIANA: ♂; Cayenne; [U.S.N.M.].

### *Eudesmus grisescens* Serville

PLATE XVII, FIGURE 7

*Eudesmus grisescens* Serville, Ann. Ent. Soc. France, iv, 1835, p. 82. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 181 (sep. p. 193); Biol. Centr.-Amer., Col., v., 1880, p. 127, pl. 9, f. 13.

Very similar to *E. ferrugineus* but lacks dark brown vittae on pronotum and on base of elytra, as well as the ferruginous pubescence; moreover, the elytral fascia is wider on disk, its posterior margin not strongly dentate and the preapical hoary fascia is reduced to a short line.

MALE. Elongate-oblong, robust, cylindrical; medium to dark reddish-brown, more or less densely covered with fulvous and hoary variegated pubescence, here and there tinged with dark brown. Head above sometimes with an indistinct, brown vitta each side of middle. Pronotum with a poorly defined hoary vitta near each side, more visible on basal half, sometimes confused with fulvous; at middle of disk a narrow linear, or small triangular, glabrous macula. Scutellum sometimes entirely hoary pubescent but usually variegated with fulvous. Elytra largely brown pubescent, at extreme base strongly variegated with bright fulvous but distinctly

vittate there, behind scutellum largely hoary; at middle a broad, hoary fascia, its anterior edge beginning at side margin slightly behind humeri and extending in a broad arc close to suture at center, its posterior edge strongly, regularly arcuate, from apical third of side to apical third of suture, the whole narrowly margined and more or less variegated with fulvous; apical brown portion strongly covered with many, fine, fulvous vittae and, near its middle, a short, transverse line or band of hoary, behind which is a dark brown macula with the pubescence more elongate. Body beneath and legs dark reddish-brown, covered with hoary and fulvous pubescence; body largely hoary medially and on sides of prothorax, the latter also marked with dark brown, as are the mesepisterna and the first abdominal sternite; the sternites each side with two rows of hoary maculae, one marginal, the other nearly obsolete, placed at middle of sides. Antennae reddish-brown, bases of segments from fourth pale, the pale portion much broader on fourth, sixth, eighth, and eleventh segments; brown pubescent, somewhat variegated with hoary, the pale bases annulate with the latter color; scape variegated hoary and fulvous.

Head minutely, rather densely punctate above; front slightly transverse, sides gradually narrowed below, more strongly so below eyes, broadly concave between antennal tubercles, slightly tumid each side at center, minutely, densely, and sparsely, coarsely punctate; genae elongate, vertical, punctation as on front; eye with lower lobe broadly oblong, not quite equaling gena in height; antennal tubercles robust, prominent, well separated, armed at apex with a broad, obtuse tooth. Pronotum transverse, apex wider than base, sides irregular, lateral tubercle small; apical transverse sulcus broad, shallow, at middle nearly obsolete, basal sulcus straight, deep, connecting with the deep, lateral oblique ones; disk with a low, broad tubercle medially, each side trituberculate, sometimes the inner apical one of these tubercles more or less wanting. Scutellum strongly transverse; sides rounded, oblique; apex arcuate, sometimes notched at middle. Elytral disk with an obsolete basal gibbosity, coarsely, densely punctate, punctures behind middle becoming finer and sparser to apex; humeri prominent, anterior margin rather strongly arcuate. Mesosternal process elongate, slightly wider posteriorly, apex bilobedly emarginate; fifth sternite slightly longer than fourth, apex broadly emarginate. Procoxae subglobose, anteriorly with a broad, feebly elevated tubercle; femora robust, strongly clavate, profemora transversely rugose at base; tibiae robust apically. Antennae one-fourth longer than body, densely fimbriate beneath on third, very sparsely so on succeeding, segments; scape short, slightly surpassing pronotal apex, robust, gradually clavate nearly from base; third segment slightly longer than first, strongly tumid medially, elongate-elliptical in outline; fourth equal to first, rest slightly shorter.

**FEMALE.** As in male, but front more strongly transverse; antennal tubercles feebly prominent, rather slender, widely separated; fifth sternite with apex more deeply emarginate, broadly, triangularly impressed at middle; profemora not rugose at base; antennae a little shorter than body, scape slender, third segment cylindrical, not tumid, densely tufted only near tip; segments from fourth gradually shorter.

LENGTH 13.5-16.5 mm.; width 5.5-6 mm.

*Type locality.*—Cayenne.

*Distribution.*—The Guianas and the Amazon basin.

BRAZIL: ♂, 3 ♀; Santarem; [C.M.].

FRENCH GUIANA: ♂, ♀; Cayenne; [M.C.Z.].

PERU: ♀; Achinamiza, September 9, 1927; [A.M.N.H.].

*Remarks.*—The male from Cayenne is much more elongate in body form, the antennae are one and one-half times length of body, its third segment more strongly tumid, and its fourth segment longer than the third. As it was very nearly identical in other respects, however, (the specimen was somewhat worn so that very close comparisons of elytral markings was not possible), no separation is made here, especially in view of the limited material on hand.

### **Eudesmus diopites** Dillon and Dillon, spec. nov.

PLATE XVII, FIGURE 9

Distinct from all the preceding in having more hoary pubescence on entire surface, and in lacking the dark brown, triangular, apical macula and dark brown pubescence behind fascia on elytra.

**FEMALE.** (Specimen rubbed). Elongate-oblong, robust, cylindrical; dark reddish-brown and piceous. Head sparsely white pubescent, variegated sparsely and irregularly with grayish-yellow and ochraceous, occiput with a vitta of thin gray-yellow and ochraceous pubescence either side of middle, which terminates between antennal tubercles. Pronotum thinly white pubescent, with disk variegated as on head. Scutellum thinly white pubescent. Elytra thinly white pubescent, disk medially variegated as head and pronotum, just behind middle the white pubescence dense and either side with a rather large, indistinct, rounded, pale grayish-yellow and ochraceous macula; apical quarter variegated slightly with gray-yellow. Beneath piceous and reddish-brown, sparsely white pubescent, the white pubescence condensed to form indistinct maculae on sides of metasternum and a small, more or less elongate macula either side on each sternite. Legs piceous and dark reddish-brown, thinly white pubescent; tarsi pale reddish-brown, claw segment testaceous, entirely very thinly white pubescent. Antennae with scape and third and apical halves of following segments, reddish-brown, basal half from fourth testaceous, all thinly white pubescent.

Head above finely alutaceous; front subquadrate, sides abruptly narrowing from below eye, surface finely, densely punctate, with scattered, coarse punctures interspersed; genae elongate, finely alutaceous and with fine punctures; eye with lower lobe small, ovate, about one-half genal height; antennal tubercles distant, feebly prominent, only very feebly produced at apex. Pronotum transverse, apex wider than base, sides straight, feebly oblique, lateral tubercles obtuse; apical sulcus deeply curved medially, basal sulcus oblique laterally; disk medially with a moderately elevated, elongate tubercle which widens gradually toward base, either side of disk with three tubercles which are more or less transverse. Scutellum very transverse; sides broadly arcuate, feebly oblique; apex broadly rounded. Elytra each at base with a feeble, elongate gibbosity, basal fourth more or less feebly, rugosely punctate, thence to middle with coarse, well-spaced punctures, to apex punctures finer and obsolete, entire disk also very finely, densely punctate; humeri moderately prominent, anterior margin arcuate, angle simply rounded. Mesosternum broad, sides straight, parallel, apex deeply emarginate; fifth sternite about



one-third again as long as fourth, at apex retuse and shallowly, triangularly impressed medially. Procoxae globose, unarmed; femora robust, strongly clavate; protarsi dilated. Antennae slightly shorter than body; scape short, only attaining apex of pronotum, clavate, feebly arcuate; third segment one-third longer than scape, cylindrical, feebly sinuate; fourth and succeeding segments gradually shorter; fimbriate feebly on scape, basal half of third, basal two-thirds of fourth, heavily on apical half of third and apical third of fourth, segments.

LENGTH 17 mm.; width 5.5 mm.

*Holotype*.—♀; Huacapistana, Rio Tarma, Peru; June 1-3, 1920; (Cornell Univ. Exp.); [C.U. number 2168].

### *Eudesmus fascinus* Serville

*Eudesmus fascinus* Serville, Ann. Soc. Ent. France, 1835, p. 82.

"Four to five lines long. Body brownish; head subshining, pubescent, red-ferrugineous. Pronotum blackish, subshining, partly pubescent; tubercle smooth and slightly prominent each side before. Elytra basally to past middle with short, whitish down, in which is a black patch; rugose and ferrugineous; behind, with three to four white points at middle. Scutellum blackish. Sternum white pubescent. Abdomen similar, whitish medially, reddish laterally and behind: each segment with two white points each side. Antennae ferrugineous; third segment black with down, rest annulate. Brazil." (Translation of original description.)

### *Eudesmus posticalis* Guérin

*Eudesmus posticalis* Guérin, Icon. Reg. Animal, Ins., 1844, p. 248.

"Grayish-brown covered with very short and very fine, ashy pubescence all over body beneath, on sides of pronotum and at middle of elytra, where this whitish-ashy forms a band, ending a little before suture and preceding a rounded spot of a deeper brown and anterior to which is a small elongate white spot and two or three small, blackish lines. Antennae brownish-gray, with the base of third and following segments pale rosy-yellow; a small point produced on front to the antennal insertion. Legs short and strong, gray-brown above, ashy beneath. Length 14 mm.; width 5 mm. Brésil interieur." (Translation of the original description.)

### PSYLLOTOXUS Thomson

*Psyllotoxus* Thomson, Physis, II, 1868, p. 74. Lacordaire, Gen. Col., IX, 1872, p. 668, 680.

Closely related to *Eudesmus* in general form of head, body, and antennae. From that genus, it differs in having front subquadrate, not transverse; pronotum strongly transverse; elytra at base distinctly granulate-punctate; humeri with a distinct tubercle at angle; antennae longer than body in both sexes, with scape very short,

scarcely surpassing pronotal apex, more strongly clavate, third segment in male fusiform, in female simple.

Moderately small, elongate-oblong, subcylindrical, robust. Head with front quadrate, distinctly narrowed below eye; genae elongate; eye with lower lobe oblong-ovate, subequal to gena in height; antennal tubercles moderately prominent, well separated, in male produced into a short, vertical tooth, in female unarmed and more widely separated. Pronotum transverse, apex slightly wider than base, armed laterally with a short, robust tubercle; disk feebly trituberculate. Scutellum transverse. Elytra with sides feebly widened behind middle, apices together rounded; disk basally sparsely granulate-punctate; humeri moderately prominent, anterior margin arcuate, angle with a large tubercle. Prosternum broad, simple, broader in female; mesosternal process broad, apex feebly emarginate, in female much broader. Fifth sternite one-half longer than fourth, in male feebly emarginate at apex, in female apex subtruncate and with a shallow, triangular impression medially. Legs very short; procoxae globose, distinctly tuberculate in male, in female obtusely so; femora robust, clavate, profemora in male with sides nearly parallel. Antennae in male one-third to one-half, in female only slightly, longer than body; scape short, attaining apical quarter of pronotum, clavate; third segment nearly twice length of scape, strongly fusiform, not swollen in female; fourth straight, cylindrical, two-thirds as long as third, in female rest gradually shorter, in male rest subequal, the eleventh more elongate.

GENOTYPE: *Psyllotoxus griseocinctus* Thomson, by monotypy.

### *Psyllotoxus griseocinctus* Thomson

#### PLATE XI, FIGURE 15

*Oncideres griseocinctus* Dejean, Cat. Col., 1837, p. 369. [nom. nud.].

*Psyllotoxus griseocinctus* Thomson, Physis, II, 1868, p. 75. Lacordaire, Gen. Col., IX, 1872, p. 680.

MALE. Elongate-oblong, robust, subcylindrical; black or piceous. Head fulvous or ochraceous pubescent, laterally whitish; front ochraceous, variegated with white; vertex with a broad, transverse, indistinct, dark brown macula between upper lobes of eyes. Pronotum silvery-gray pubescent, apical margin fringed with fulvous. Scutellum silvery-gray, at middle with a broad, triangular, glabrous area. Elytra silvery-gray pubescent, basal and apical thirds with small, irregular, well-spaced, ochraceous maculae, at middle third a silvery-gray fascia which is deeply dentate on its posterior margin. Beneath reddish-brown, densely silvery-gray pubescent, sternal side-pieces and metasternum laterally irregularly rosy or ochraceous maculate; abdominal sternites laterally indistinctly variegated with ochraceous. Legs piceous; pro- and mesofemora silvery-gray pubescent, sometimes with faint touches of ochraceous, metafemora gray and ochraceous variegated, with a broad, oblique fascia of dark brown at middle; tibiae gray and ochraceous variegated, with a broad, oblique, dark brown fascia nearer apex; tarsal segments narrowly ochraceous at base, remaining portion dark brown. Antennae piceous; scape fulvous or ochraceous pubescent; third segment fulvous-brown; from fourth basal two-thirds of each segment pale gray, remaining portion pale brownish-fulvous.

Head above alutaceous; front finely, densely punctate and with scattered, coarse punctures. Pronotum with apical transverse sulcus shallow, gradually curved, basal one shallow, oblique laterally; sides arcuate, lateral tubercles feebly elevated, ending in a short, robust, rounded process; disk with three tubercles, one broad, feebly elevated, just behind middle, one either side, just behind apical sulcus. Scutellum transverse; sides arcuate; apex broadly rounded. Elytra with disk on basal third sparsely granulate-punctate, middle third with coarse punctures, thence to apex punctures finer. Antennae with scape short, attaining only apical quarter of pronotum, robust, abruptly clavate from basal quarter, on mesal and lateral surfaces with a single, deep, longitudinal groove which extends nearly to middle; third segment nearly twice length of scape, much swollen, fusiform.

**FEMALE.** Head between antennal tubercles broad, very feebly concave; antenual tubercles feeble, not produced, more widely separated; genae slightly taller than lower lobe of eye; elytra more robust; pro- and mesosternum much wider; fifth sternite at apex subtruncate and with a shallow, triangular impression medially; procoxae less globose, very obtusely tubercled; femora gradually clavate, profemora feebly rugose on basal half; antennae only slightly longer than body, scape less robust, not grooved basally, third segment slender, cylindrical, about half again as long as scape, remaining segments gradually shorter.

LENGTH 12-15 mm.; width 4-5.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

**BRAZIL:** ♂, ♀; Rio de Janeiro, Oct.-Dec.; [C.M.]. ♀; Nova Friburgo; [M.C.Z.]. ♀; Curitiba, Paraná; Dec. 1940; (A. Mallor); [L. Lacey]. ♀; Londrina, Paraná; 700 m.; Dec. 1934; (A. Mallor); [L. Lacey].

### PERIERGATES Lacordaire

*Periergates* Lacordaire, Gen. Col., ix, 1872, p. 668, 679.

Distinct from *Taricanus* in the front being elongate, rather narrow; antennal tubercles subapproximate, unarmed but with a tuft of hairs; elytra densely granulate-punctate at base, rest of surface densely punctate; antennae with scape more cylindrical, very feebly clavate, third and fourth segments cylindrical; and pronotum minutely armed laterally.

Moderately small, elongate-oblong, slender, cylindrical. Head with front elongate, gradually narrowed below lower margin of eyes; genae elongate, vertical; eye with lower lobe broadly ovate, small, about three-fourths the height of gena; antennal tubercles feebly elevated, subapproximate, unarmed but with a tuft of hairs. Pronotum subquadrate, slightly wider at apex, lateral tubercles obsolete; disk transversely rugose. Elytra with sides nearly parallel, very feebly attenuate apically; apices together rounded; disk at base densely, irregularly granulate; humeri feebly prominent, angle with a large, glabrous tubercle. Prosternum simple; mesosternal process narrow, elongate, slightly widened apically, apex rounded. Legs short; procoxae globose, strongly tuberculate; femora robust, short, clavate; meso-

tibiae dilated apically in male. Antennae one and one-half times as long as body in male, heavily setose beneath on basal three segments; scape robust, subcylindrical, gradually, feebly clavate to apex, attaining middle of pronotum; third segment robust, cylindrical, straight, slightly shorter than first; eleventh strongly elongate in male, arcuate, about twice length of tenth.

GENOTYPE: *Periergates rodriguezi* Lacordaire, by original monotypy.

#### KEY TO SPECIES

1. Elytral maculae fulvous or golden-fulvous .....2  
Elytral maculae dull orange-red ..... *rodriguezi*
2. Elytra tuberculate on basal third ..... *chiriquensis*  
Elytra tuberculate on basal half ..... *badeni*

### *Periergates rodriguezi* Lacordaire

*Periergates rodriguezi* Lacordaire, Gen. Col., IX, 1872, p. 679, atlas, pl. 105, f. 2.  
Bates, Biol. Centr.-Amer., Col., v, suppl., 1885, p. 368.

MALE. Elongate-oblong, slender, cylindrical; black, sparsely covered with dull orange-red pubescence, more concentrated to form a narrow margin behind eye, a vitta each side of front, irregular patches on middle and sides of pronotum, and a number of rather close-set, rounded maculae on elytra (about thirty on each elytron); everywhere sparsely variegated with hoary pubescence, more noticeably so on lower part of front, behind eyes on head, on base and sides of pronotum, and on elytra, here forming indistinct pupils in the maculae as well. Beneath fuscous, finely, densely covered with longish hoary pubescence, laterally irregularly variegated and maculate with dull red; mes- and metepisterna posteriorly brown pubescent; abdomen hoary, apices and sides of basal four segments dull red pubescent. Legs fuscous, femora at base and tibiae paler; hoary pubescent; femora at base reddish pubescent, at apex brown; tibiae apically brown pubescent; tarsi concolorous. Antennae dark brown, bases of third, fourth, and sixth segments somewhat paler; dark brown pubescent, slightly variegated with hoary; fourth, fifth, and sixth segments somewhat hoary at base above, all apical segments broadly hoary beneath on bases.

Head above minutely, densely nutaceous, medially distinctly scabrose; front and genae minutely, rather densely punctate, with a few coarser punctures interspersed, everywhere distinctly scabrose or rugose. Pronotum with apical transverse sulcus rather deep and broad medially, not attaining sides, basal one straight, narrow, deep, joining with the very feeble, lateral oblique ones; disk entirely covered with coarse, transverse rugosities, the posterior ones somewhat interrupted. Scutellum small, feebly transverse, sides straight, slightly oblique, apex broadly truncate. Elytral disk at base rather densely, irregularly granulate, granules moderate in size, feebly elevated, behind basal quarter succeeded by coarse, dense, deep punctures to apex. Fifth sternite a little longer than fourth; apex broadly and strongly emarginate. Procoxae anteriorly with a very robust, prominent tubercle, which is entirely covered by rugosities; profemora subcylindrical, coarsely rugose at base on anterior and posterior faces. Antennae with fourth slightly shorter than third, fifth

to eighth shorter, ninth and tenth slightly, eleventh very strongly, elongate, the latter arcuate and aciculate.

FEMALE. According to Lacordaire's figure and statements, the female is more robust than male; the antennal tubercles nearly wanting, not tufted at apex; profemora clavate; mesotibiae no wider apically than metatibiae; antennae about as long as body, the fifth and following segments very short, the three basal segments together nearly as long as all following ones combined.

LENGTH 12.3 mm.; width 4 mm.

*Type locality.*—Guatemala.

*Distribution.*—Guatemala.

GUATEMALA: ♂; no locality data; [A.N.S.P.].

*Remarks.*—As Bates pointed out, Lacordaire based his figure and description on a female specimen, not a male as he believed. According to Lacordaire, "this species is rather common in Guatemala and occasionally makes serious ravages in the coffee plantations by girdling the young branches of the trees".

### **Periergates chiriquensis** Bates

*Periergates chiriquensis* Bates, Biol. Centr.-Amer., Col., v, suppl., 1885, p. 368.

"Broader and more robust than *Periergates rodriguezi*; black, with golden-fulvous tomentum, with nude spaces. Thorax very short as in *Oncideres*, base narrow, middle of disk transversely, interruptedly rugose. Elytra with basal third closely and more or less confluent tuberculate, thence to apex punctate, with depressed spaces and round maculae and vermiculate signs of golden fulvous. Body beneath densely fulvous-pubescent, medially gray.

"Female. Antennae slightly shorter than body, segments one and two densely and shortly setose not incrassate. First sternite slightly shorter than third and rather slenderly clavate, third and following beneath shortly ciliate. Length  $6\frac{1}{2}$  lines. Chiriqui volcano, Panama." (From Bates.)

### **Periergates badeni** Bates

*Periergates badeni* Bates, Biol. Centr.-Amer., Col., v, 1885, suppl. p. 369.

"Closely related to *Periergates chiriquensis*; body (male) short, oblong, robust. Chestnut-fuscous, with fulvous tomentose maculae and vermiculae. Head closely granulate. Thorax cylindrical, slightly shorter than broad, base moderately narrowed, entire disk transversely rugose, rugules interrupted anteriorly. Elytra with basal half closely granulate, apex crebrosely punctate; middle of base fulvous, larger maculae from middle to apex, and interstices with fine vermiculae of fulvous-tomentum. Antennae and legs red testaceous.

"Male. Antennae about twice length of body; scape shorter than in *Periergates rodriguezi*, shortly setose and scabrous, third not incrassate, slightly longer than scape, third and fourth beneath densely ciliate, fourth to tenth not shorter,

parallel, eleventh very long, apically curved. Antennal tubercles rather elevated, apically penicillate. Length 7 lines. Male. Mexico?" (After Bates).

## ONCIDERES Serville

*Oncideres* Serville, Ann. Soc. Ent. France, iv, 1835, p. 67. Thomson, Class. Ceramb., 1860, p. 40. Thomson, Syst. Ceramb., 1864, p. 104. Bates, Ann. Mag. Nat. Hist., (3), xvi, 1865, p. 175. Lacordaire, Gen. Col., ix, 1872, p. 677.

The distinguishing characters of the genus are the more or less cylindrical form; the antennal tubercles not approximate; eyes with lower lobe oblong, vertical; pronotum as wide or wider anteriorly than posteriorly; elytra granulate on base, apices usually together rounded; procoxae simply tuberculate or unarmed; legs rather short; and antennae as long or longer than body, the scape clavate.

Small to large-sized beetles, ranging from 9 to 29 mm. in length. Elongate-oval or elongate oblong, subcylindrical. Head above minutely alutaceous or finely punctate; front oblong, vertical, broader in female than in male; antennal tubercles in male more approximate and slightly prominent, concave between them, often shortly horned or dentate at apices, the armature vertical, in female only feebly concave between them, feebly elevated, usually remote, unarmed apically; eye variable in size in the various species, lower lobe always vertical, more or less oblong. Antennae in male ranging from slightly longer than body to one and two-thirds the body length, in female slightly shorter, or slightly longer, than body, always fimbriate beneath, at least on third segment; scape usually robust, more slender in female, more or less gradually clavate; third segment longer than scape, robust or tumid in male, slender in female, fourth and following gradually shorter; eleventh in male often elongate. Pronotum transverse, in female more strongly so, base narrower than apex; disk transversely carinate or with three to five callosities across middle; lateral tubercles present, sometimes minute (in *cervina* absent). Scutellum transverse, variable in shape. Elytra granulate or tuberculate at base (rarely simply punctate), sometimes gibbose; humeri usually rounded, prominent; apices unarmed, except in male of *dejeani*. Prosternum simple, variable in width. Procoxae usually tubercled in male, sometimes in female, never uncate; mesocoxae minutely tubercled internally; femora robust, clavate, profemora in male nearly parallel-sided, usually rugose on posterior face, often rugose anteriorly also, in female simple, metafemora usually shorter. Fifth sternite in female usually triangularly impressed apically.

GENOTYPE: *Lamia vomicosa* Germar, designated by Thomson, 1864, page 104.

### KEY TO SPECIES

1. Pronotum not vittate; elytra usually granulate or granulate-punctate. . . . . 2  
    Pronotum with three brown vittae; elytra not granulate nor granulate-punctate . . . . . *scitula* (p. 399)
2. Elytra broadly margined laterally with dense white pubescence  
    *albomarginata* (p. 334)
- Elytra not white marginate laterally . . . . . 3

3. Pronotal disk transversely rugose or multicarinate .....4  
 Pronotum with but a single, glabrous, transverse carina .....12  
 Pronotum with three to five glabrous maculae in a transverse row across middle,  
 or with a single small macula at center, or rarely without glabrous markings  
 of any sort (*cingulata* and *quercus*; U.S.A.) .....28
4. Pronotum entirely covered with regular, transverse carinae, lateral tubercle  
 lacking; elytra sparsely gray pubescent, thickly covered with ochraceous,  
 coalescent maculae, base with a few, minute granules in one or two trans-  
 verse rows .....*cervina* (p. 332)  
 Pronotum transversely carinate only medially, lateral tubercle present; elytral  
 granules never minute, extending usually to basal quarter or third .....5
5. Elytral maculation consisting of small, rounded, glabrous or brown-pubescent  
 spots, apically with more or less distinct forked lines .....6  
 Elytral maculation consisting of white or ochraceous spots, without trace of  
 apical forked lines .....7
6. Metasternum laterally broadly ochraceous; elytra with only a little white  
 pubescence behind middle, base dark fulvous .....*crassicornis* (p. 340)  
 Metasternum entirely ashy; elytra with white pubescence from before middle  
 to apex, basally brown .....*repandator* (p. 341)
7. Sternum brown, towards sides white maculate; elytra gray and ochraceous  
 variegated .....*macra* (p. 373)  
 Sternum laterally not white maculate; elytra not gray and ochraceous varie-  
 gated .....8
8. Antennae beneath with long fringing hairs to apex, scape pubescent and  
 covered sparsely with long setae which give it a shaggy appearance; elytra  
 with a fulvous band on basal quarter, a brown and fulvous one at apical  
 third, rest of its surface white (U.S.A.) .....*quercus* (p. 383)  
 Antennae not fringed beneath with long hairs to apex, scape simply pubescent,  
 not setose; elytra colored differently .....9
9. Elytral gibbosities very prominent; neotropical .....10  
 Elytral gibbosities feeble; nearctic .....*cingulata* (p. 385)
10. Elytra with an indistinct fascia before or at middle .....11  
 Elytra without trace of a fascia .....12
11. Elytral granules globose, sparse .....*ulcerosa* (p. 315)  
 Elytral granules distinctly flattened, dense, more or less confluent on gibbosities  
*crocala* (p. 317)
12. Elytra brownish-ochraceous, densely minutely irrorate with whitish, sometimes  
 confluent so, basal granules more or less confined to gibbose portion  
*etiolata* (p. 318)  
 Elytra grayish-brown, with well-spaced, small, white maculae, slightly more  
 numerous on apical third, granules well-separated, covering entire base  
 behind the usual smooth portion .....*ilaire* (p. 319)
13. Elytra with entire basal third, behind usual smooth portion, very densely,  
 minutely, uniformly granulate .....14  
 Elytra with coarse granules, not densely and uniformly placed .....15
14. Elytral median fascia distinct, dense white; length 15-19.5 mm.  
*miniata* (p. 369)  
 Elytral median fascia indistinct, composed of minute maculae; length 17-  
 27 mm. ....*dejeani* (p. 367)
15. Elytra on apical third with glabrous forked lines .....16

- Elytra without lines apically .....21
16. Metasternum laterally and metepisterna dark fulvous or ochraceous .....17  
Metasternum and metepisterna laterally ashy or white maculate .....18
17. Metasternum laterally and metepisterna dark fulvous; elytra with a narrow, distinct, deeply sinuate, white fascia at apical third, followed by a wide glabrous band which is minutely irrorate .....*multicincta* (p. 346)  
Metasternum laterally and metepisterna ochraceous; elytra white, with small, distant, rufous-ochraceous maculae over entire disk from basal fifth  
*gemmata* (p. 350)
18. Elytral maculae white or fulvous, in addition to glabrous ones .....19  
Elytra with only glabrous maculae .....20
19. Elytra with small, sparse, sharply-defined, white maculae on median third, apical third with larger, denser, fulvous maculae; pronotal carina broad  
*fulvoguttata* (p. 356)  
Elytra with only white pubescent maculae, these are large, poorly defined and on entire disk except basal fifth; pronotal carina fine; *albomaculata* (p. 347)
20. Elytra with elongate, moderately dense, glabrous maculae; basal third with well-spaced granules, gradually evanescent posteriorly...*cephalotes* (p. 343)  
Elytra with round, sparse, very small, glabrous maculae; granules close-set, confined to basal quarter, ending abruptly behind .....*chevrolatii* (p. 344)
21. Elytra glabrous, densely, minutely irrorate with white .....*irrorata* (p. 336)  
Elytra glabrous, with very numerous, ochraceous-fulvous tomentose maculae  
*limpida* (p. 324)  
Elytra pubescent and maculate .....22
22. General color of elytra pale gray or white, with ochraceous or fulvous maculae .....23  
General color of elytra brownish, with small or minute white maculae .....25
23. Sterna laterally broadly dark brown; elytra with ochraceous maculae rounded, basal granules arranged more or less in two transverse rows  
*sobrina* (p. 354)  
Sterna laterally whitish or white vittate; elytral ochraceous maculae irregularly shaped, granules not arranged in transverse rows .....24
24. Scutellum uniformly gray; elytra with glabrous markings forming a more or less distinct network within the gray pubescence; humeri with tubercle at external angle slightly more prominent than surrounding granules  
*bouchardi* (p. 355)  
Scutellum medially gray, lateral and apical margins broadly white; elytra with glabrous markings minute, rounded, sparse, well separated; humeri with the external tubercle no larger than surrounding granules ....*argentata* (p. 353)
25. Mesepisterna not maculate with white; pronotal carina on each side of disk dividing into four or five distinct carinules .....*germarii* (p. 320)  
Mesepisterna maculate with white; pronotal carina dividing only on extreme sides .....26
26. Pronotum with a distinct ochraceous band before transverse carina  
*saga saga* (p. 321)  
Pronotum not banded with ochraceous .....27
27. Elytral maculation indistinct, minute, not forming rosettes nor larger maculae; granulation at base very sparse, at most eight granules on each elytron (exclusive of humeral) .....*saga colombiana* (p. 324)  
Elytral maculae distinct, minute, with a few larger ones interspersed, the smaller ones often forming indistinct rosettes; basal granules more profuse, usually covering entire basal quarter .....*saga amazona* (p. 323)





42. Elytra minutely irrorate with white, with much larger, distinct maculae interspersed behind basal third ..... *maxima* (p. 335)  
 Elytra not irrorate ..... 43
43. Elytra white pubescent, maculate with minute, glabrous points and small, rounded, well separated, indistinct, ochraceous maculae ... *gibbosa* (p. 339)  
 Elytra light gray pubescent, basal third brown pubescent, with scattered, small, ochraceous maculae on apical two-thirds ..... *phaetusa* (p. 338)
44. Elytra uniformly whitish or pale fulvous-gray pubescent, maculate only with glabrous spaces ..... 45  
 Elytra not uniformly pale pubescent, sometimes with pubescent maculation. . 46
45. Elytra with only a few very large granules on base, pubescence sparse, glabrous maculae very large, rounded, well-spaced; length 12 mm.  
*intermedia* (p. 398)  
 Elytra with many, proportionately smaller granules, the pubescence dense, the glabrous maculae small, elongate, with a band of densely placed maculae at apical third; length 22-28 mm. .... *cephalotes* (p. 343)
46. Antennae beneath densely fimbriate with long hairs to apex, scape pubescent and with many long setae which give it a shaggy appearance; elytra largely white pubescent, at base irregularly bright fulvous pubescent, sides at apical third with a short dark brown band, interrupted by irregular fulvous maculae ..... *quercus* (p. 383)  
 Antennae beneath not densely fimbriate with long hairs to apex, scape pubescent, not shaggy; elytra not largely white pubescent, or if so, then with distinct, rounded, colored maculae on entire disk, not fulvous pubescent on basal quarter ..... 47
47. Elytra without grayish or white maculae ..... 48  
 Elytra with grayish or white maculae, although colored ones may also be present ..... 51
48. Elytra maculate from extreme base ..... 49  
 Elytra maculate from much beyond base and behind median fascia; sentellum ashy pubescent; Bolivia ..... *stillata* (p. 381)
49. Elytral fascia punctate or granulate ..... 50  
 Elytral fascia without punctures or granules ..... *cingulata* (p. 385)
50. Elytra with coarse, sparse granules at base, extending as fine, sparse granulate punctures to middle of the indistinct median fascia, thence to apex as fine, sparse punctures; antennae with first two proximal segments piceous, from third much paler ..... *guttulata* (p. 380)  
 Elytra with dense, rather fine granules at base not attaining fascia, punctures to apex fine, moderately dense, becoming less distinct posteriorly; antennae with only the most distal segments noticeably paler ... *rhodosticta* (p. 382)
51. Elytra with a dense, grayish tomentose fascia at middle ..... *bucki* (p. 358)  
 Elytra with, at most, an indistinct, thinly pubescent fascia ..... 52
52. Elytra ferruginous at base, medially white pubescent, with several black granules, apex maroon, with sparse, small, white points ..... *diana* (p. 397)  
 Elytra not ferruginous at base nor maroon at apex ..... 53
53. Elytra without fascia, with only minute, scattered, white maculae; body length at least 18 mm. .... *nivea* (p. 324)  
 Elytra with whitish fascia at middle, with ochraceous maculae on basal third and apical third; body length about 10 mm. .... *punctata* (p. 390)
54. At least mesepimera and mesepisterna brown ..... 62

- Mesepimera and metepisterna fulvous or ochraceous, not brown .....55
55. Elytra maculate only with white .....56  
 Elytra maculate with fulvous or ochraceous (white maculae may be present also) .....59
56. Elytra coarsely, sparsely granulate at base, maculate only beyond basal third .....57  
 Elytra finely, densely granulate at base, entire disk maculate .....58
57. Elytra sparsely white maculate; body length 9 mm. .... *minuta* (p. 372)  
 Elytra densely white maculate; body length at least 16 mm.: *aegrotæ* (p. 330)
58. Pronotal maculae rounded, lateral tubercles small; elytra cylindrical, nearly parallel-sided ..... *castanea* (p. 370)  
 Pronotal maculae strongly transverse, lateral tubercles very prominent; elytra with sides distinctly tapering ..... *humeralis* (p. 331)
59. Elytra at middle with a broad, indistinct, whitish fascia of denser pubescence  
*poecila* (p. 389)  
 Elytra not fasciate .....60
60. Pronotum with only three glabrous maculae; head scabrose .... *voctii* (p. 394)  
 Pronotum with five glabrous maculae; head minutely punctate .....61
61. Metasternum broadly vittate laterally; elytral granules confined to basal third, glabrous maculae punctate and smaller than granules ..... *fisheri* (p. 395)  
 Metasternum narrowly vittate laterally; elytral granules extending to apex although feebly elevated posteriorly, nearly uniform in size  
*bondari* (p. 393)
62. Elytra with fulvous or orange-red maculae .....63  
 Elytra with whitish maculae; size moderate, at least 15 mm. in length ....65
63. Elytra hoary pubescent and orange-red maculate on apical two-thirds; body length 19 mm. or more ..... *fulvostillata* (p. 348)  
 Elytra uniformly pubescent and fulvous maculate; body length 9-12 mm. ....64
64. Abdomen not vittate at sides, each sternite with an irregular, more or less elongate, glabrous macula laterally; elytra with dense, fine, glabrous punctures ..... *pectoralis* (p. 376)  
 Abdomen with each sternite having a small white macula laterally; elytra very sparsely punctate, punctures set in the middle of glabrous maculae  
*schreiteri* (p. 391)
65. Elytra without glabrous maculae ..... *digna* (p. 327)  
 Elytra with glabrous maculae .....66
66. Elytra with whitish maculae, without trace of fascia ..... *philosipes* (p. 328)  
 Elytra maculate with ochraceous or with white ringed with ochraceous, a more or less visible fascia medially .....67
67. Elytral maculae entirely fulvous, base coarsely, irregularly granulate; body length 12-16 mm. .... *guttulata* (p. 380)  
 Elytral maculae white or white ringed with ochraceous, base finely and usually sparsely granulate; body length always more than 16 mm. ....68
68. Elytral fascia attaining suture, not oblique .....69  
 Elytral fascia distinctly and rather broadly interrupted at suture, with an oblique anterior margin ..... *putator brevisfasciata* (p. 360)
69. Elytral fascia delimited behind by a more or less distinct brown or brownish band .....72  
 Elytra without brown band posterior to fascia .....70

70. Elytra with fascia distinct, basal granules moderately dense, small but distinct, the glabrous maculae small, sharply defined, and very numerous, the white maculae quite visible ..... *putator putator* (p. 359)  
Elytra with fascia indistinct, basal granules very small and sparse ..... 71
71. General body pubescence hoary-gray; elytral glabrous maculae minute, indistinct, well separated; antennae light gray pubescent ..... *scnilis* (p. 362)  
General body pubescence dark grayish-brown; elytral glabrous maculae minute, distinct, closely set; antennae dark grayish-brown pubescent  
*pustulata* (p. 364)
72. Elytral white maculae small, but distinct, visibly ringed with ochraceous, usually seriate; pronotal maculae well marked ..... *ocellaris* (p. 361)  
Elytral white maculae indistinct, sometimes wanting, not distinctly ringed .. 73
73. General body pubescence hoary; elytral granules very minute, rather indistinct; humeri without distinct granules; pronotal maculae indistinct; West Indies ..... *canidia* (p. 365)  
General body pubescence brownish-gray; elytral granules small but distinct; humeri closely granulate; pronotal maculae distinct; southwestern U. S.  
*pustulata* (p. 364)

### *Oucideres ulcerosa* Germar

#### PLATE XII, FIGURE 1

*Lamia ulcerosa* Germar, Ins. Spec. Nov., 1824, p. 482.

*Oucideres heterocera* Dejean, Cat. Col., 1837, p. 369 (nom. nud.)

*Oucideres heterocera* Thomson, Physis, II, 1868, p. 78.

var. *vicina* Thomson, Physis, II, 1868, p. 79.

The granulate gibbositics on base of elytra, followed by dense, minute, white maculation, and the transverse rugosities of pronotum, as well as the latter's lack of maculae, serve to distinguish this form.

**MALE.** Elongate-ovate, rather robust, subcylindrical, elytra convex; reddish-brown to piceous, elytra usually paler. Head covered with ochraceous, more concentrated behind eye and on sides of front. Pronotum with gray, or ochraceous and gray variegated, pubescence, each side on basal half with a narrow, ochraceous vitta. Scutellum gray, sometimes ochraceous basally. Elytra rather densely covered with fine, dark brownish-gray or fulvous pubescence, densely maculate with many, minute, rounded or coalescent, white spots, tending to form a band at middle and a more indistinct one at apical quarter. Beneath reddish-brown to fuscous, hoary-gray pubescent, pubescence arranged in small, irregular patches, sterna indistinctly maculate laterally with ochraceous; metasternum broadly but rather vaguely white each side. Legs dark reddish-brown to piceous, hoary pubescent, above more or less ochraceous. Antennae dark reddish-brown, paler distally, scape piceous; all segments clothed with fine, yellowish-gray pubescence.

Head finely, densely punctate; front strongly concave between antennal tubercles, finely, densely punctate, with a few scattered, coarse punctures intermingled; gena scabrose, sparsely pubescent; eye with lower lobe oblong, about one and one-half times the height of gena; antennal tubercles prominent, strongly produced into robust horns which project upwards and inwards and which are usually broad and

emarginate at apex. Pronotum transverse, slightly wider at apex than at base, where it is constricted behind lateral tubercles; latter feebly elevated, terminating in a robust, blunt process; apical and basal transverse sulci shallow; disk at middle transversely rugose, base of lateral tubercles with a number of punctate-granules. Scutellum slightly transverse, sides nearly straight, oblique, apex rounded. Elytra with sides almost straight, attenuate apically, apices together rounded, base strongly gibbose behind scutellum, gibbosity with a variable number of large granules, sometimes closely set, near suture on basal quarter with few much smaller granules, rest of disk minutely, rather closely punctate; humeri more or less feebly rounded, with a small, slightly prominent tubercle at posterior angle, followed by a number of small granules. Procoxae with entire anterior portion occupied by a broad, conical tubercle; profemora with sides nearly parallel, slightly wider on apical quarter, coarsely, transversely rugose on basal two-thirds of posterior face, less coarsely so on anterior face, other femora gradually clavate; protarsi, protibiae, and profemora subequal, on other legs tarsi slightly longer, tibiae shorter. Fifth sternite one-quarter longer than fourth, apex emarginate. Antennae one-third to one-half longer than body, almost completely without fringing hairs beneath; scape robust, abruptly clavate from basal third, sometimes slightly rugose above, at basal quarter with a deep, oblique groove, wanting above; third segment elongate, tumid, subequal in width to scape at apex.

**FEMALE.** Slightly more robust; front broadly and feebly emarginate between antennal tubercles, which are only slightly elevated and unarmed; pronotum slightly more transverse; elytra broader, less tapering behind; procoxae tumid, obtusely tubercled; profemora more strongly clavate, not rugose; fifth sternite one-third longer than fourth, emarginate at apex, basally with a deep, triangular impression; antennae as long as, or slightly longer than body; scape short, slender, slightly grooved at basal quarter, third segment robust, not tumid.

**LENGTH** 15-24 mm.; width 5.5-9.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Throughout the north-central portion of South America.

**ECUADOR:** ♂; Balzapamba, alt. ca. 1700 m., May 30, 1938; (W. C. McIntyre); [L. Lacey].

**BOLIVIA:** ♂; Prov. del Sara; [C.M.].

**BRAZIL:** ♂; no locality data; [M.C.Z.]. ♀; Pará; [C.M.]. ♀; Aracaju Sergipe, Sept. 1931; (A. Maller); [L. Lacey]. 4 ♂, 5 ♀; Hansa Humboldt, Santa Catharina, Dec.-Mar.; (A. Maller); [L. Lacey]. 2 ♂, 3 ♀; Rio de Janeiro; [♀; M.C.Z. 2 ♂, 2 ♀; C.M.]. ♂; Matilde, Esperito Santo, Nov. 1939; (A. Maller); [L. Lacey].

**PARAGUAY:** ♀; Chaco Territory, about 150 miles west of Puerto Casado; (A. Schulze); [L. Lacey].

**NO LOCALITY DATA:** 2 ♀; (M.C.Z.).

*Remarks.*—In the variety *vicina*, the basal third of elytra is glabrous, shining, and devoid of maculae.

**Oncideres crocala** Dillon and Dillon, spec. nov.

## PLATE XII, FIGURE 2

Closely allied to *O. ulcerosa* but differs chiefly in the tuberculation of the base of the elytra. The tubercles here are more numerous, denser, and strongly flattened. Moreover, the gibbosities are proportionately broader and the humeri lack the prominent tubercle at posterior angle. In coloration it differs in that the maculation of the elytra are more densely placed and do not form an apical band, and the general pubescence is extremely sparse beyond basal quarter. The pronotum has the discal rugosities broader.

FEMALE. Elongate-ovate, robust, subcylindrical, elytra convex; dark reddish-brown, elytra slightly paler. Head covered with fulvous-ochraceous; eye broadly margined with denser pubescence; front laterally vittate with fulvous-ochraceous; gena glabrous. Pronotum thinly clothed with pale gray and fulvous-ochraceous intermixed, above each lateral tubercle more or less condensed into a narrow vitta extending from base to middle. Scutellum fulvous-ochraceous. Elytra on basal quarter covered with fulvous-ochraceous pubescence, thence very sparsely yellowish-gray to apex, densely irrorate with numerous, minute, irregular, white maculae, at and before middle more condensed to form a broad fascia, apically more or less coalescent, but not forming another band. Beneath dark reddish-brown, hoary-gray pubescent, tinged with fulvous, pubescence arranged in small, irregular patches; mes- and metepisterna anteriorly maculate with fulvous. Legs dark reddish-brown to piceous, above fulvous and gray pubescent. Antennae reddish-brown, thinly gray pubescent, scape piceous.

Head finely, densely punctate; front broad and nearly flat between antennal tubercles, finely, densely punctate, with a moderate number of coarse punctures interspersed; genae scabrose, vertical; eye with lower lobe oblong, one-third again the length of the gena; antennal tubercles feebly elevated, unarmed. Pronotum transverse, apex wider than base; apical transverse sulcus wide and shallow, basal one narrow, moderately deep; disk medially with two transverse rugosities, narrowly interrupted each side of middle; lateral tubercles feebly elevated, terminating in a short, blunt process, basally above with a few punctate-granules. Scutellum transverse, sides feebly arcuate, apex broadly rounded. Elytra with sides slightly widened behind middle, apices together rounded; extreme base smooth, each elytron at middle with a broad, prominent gibbosity, which is covered with many large, flattened, nearly confluent granules, a few others scattered around these, to basal quarter with sparse, smaller granules, rest of disk minutely, rather closely punctate; humeri slightly rounded and oblique, covered by a shining tubercle which is not at all prominent, beneath humerus to basal third with large, rounded, nearly confluent granules. Procoxae tumid, anteriorly prominent; profemora abruptly clavate from basal quarter, other femora short, robust, abruptly clavate. Fifth sternite one-quarter longer than fourth, apex subtruncate, with a rather deep, triangular impression to base. Antennae shorter than body, third and fourth segments slightly fringed beneath, rest with scattered hairs; scape short, gradually clavate from base,

very feebly grooved basally beneath and internally; third segment robust, not tumid.

LENGTH 19 mm.; width 6.8 mm.

*Holotype*.—Female; Aracaju Sergipe, Brazil, Sept., 1939, (A. Maller); [L. Lacey].

***Oncideres etiolata* Dillon and Dillon, spec. nov.**

PLATE XII, FIGURE 3

Similar in habitus and coloration to *O. humeralis*, but pronotum is transversely rugose, and the elytra arc coarsely granulate on base. In the male, moreover, the third antennal segment is greatly swollen. From *ulcerosa*, it is distinguished by the general brown pubescence of the body, and by the elytral maculation not coalescent nor forming a median fascia.

**MALE.** Elongate-ovate, rather robust, subcylindrical, elytra convex; dark reddish-brown, elytra paler, uniformly covered with brownish-ochraceous pubescence. Head with eye posteriorly and front laterally, rather broadly margined with rufous-ochraceous. Pronotum at apex with an indistinct band of rufous-ochraceous. Elytra behind basal fifth moderately irrorate with many, well spaced, white maculae, condensing to form vermieulate markings. Beneath reddish-brown, moderately yellowish-gray pubescent; sterna at sides broadly marked with rufous-ochraceous. Legs dark reddish-brown or piceous, beneath yellowish-gray, above rufous-ochraceous, pubescent. Antennae dark reddish-brown, paler apically, scape piceous; thinly clothed with fine, pale yellowish-gray pubescence, apical half of each segment darker.

Head with front strongly concave between antennal tubercles, finely, densely punctate, with scattered, coarse punctures intermingled; genae coarsely, densely punctate; eye with lower lobe narrowly oblong, nearly one and one-half times the height of gena; antennal tubercles slightly elevated, strongly produced at apex into a short, robust, vertical horn, apex of which is subemarginate. Pronotum transverse; apical transverse sulcus obsolete, basal one slightly distinct; disk entirely covered by fine transverse rugosities; lateral tubercles feebly elevated, terminating in a short, subacute process, bases above with many minute punctate-granules. Scutellum transverse, sides straight, slightly oblique, apex rounded. Elytra with sides nearly straight, attenuate apically, apices together narrowly rounded; base subgibbose, each gibbosity with six to eight granules, behind gibbous portion to basal third with fine scattered granules, thence very closely punctate, apically more finely so, finely bicostate on apical two-thirds; humeri prominent, feebly rounded, with a small tubercle at angle, behind finely granulate along sides to basal third. Procoxae with a prominent tubercle which is very broad, its apex shallowly emarginate, appearing as though double; profemora robust, only slightly clavate apically, transversely rugose nearly to apex on posterior faces, other femora robust, clavate. Fifth sternite only slightly longer than fourth, apex rather deeply emarginate. Antennae one and one-half times body length, fringed on third and fourth segments, scape robust, clavate, with a single deep groove at basal quarter each side; third segment tumid, nearly as wide as scape basally.

FEMALE. More robust; front broader and feebly concave between antennal tubercles; pronotum more transverse; elytra more robust, less attenuate; procoxae with feeble, obtuse tubercle before, all femora clavate, profemora more robust, not rugose; fifth sternite one-fourth longer than fourth, apex subemarginate, base triangularly impressed; antennae not quite as long as body, scape robust, short, clavate, feebly grooved, third segment robust, not tumid.

LENGTH 19-24.5 mm.; width 6.5-8.5 mm.

*Holotype*.—Male; Hansa Humboldt, Santa Catharina, Brazil, Feb. 1932; (A. Maller); [L. Lacey].

*Allotype*.—Female; same data as holotype but "March, 1932"; [L. Lacey].

*Paratype*.—Male; no locality data; [L. Lacey].

### ***Oncideres ilaire* Dillon and Dillon, spec. nov.**

PLATE XII, FIGURE 4

Closely related to *O. etiolata* but recognizable by the granulation of elytra being well spaced, covering the entire basal quarter, not confined to gibbositities, and the elytral maculation denser on the basal half. Moreover, the pronotal tubercle is indistinct and minute in this form, not prominent as in *etiolata*.

FEMALE. Elongate-ovate, moderately robust, subcylindrical, elytra convex; fuscous, elytra dark brown; entirely covered with grayish-brown pubescence. Head with eye not distinctly marginate with denser pubescence; front not vittate laterally, all over speckled with deep ochraceous. Pronotum without glabrous maculae, with several transverse carinules, which are not entire and are only slightly shining. Elytra paler basally, more tawny there, from behind basal quarter to apex with very small, irregular, widely separated, white maculae, more numerous from apical third. Body beneath reddish-brown, ochraceous pubescent, abdomen gray pubescent; metasternum laterally and its side pieces tinged with brown. Legs fuscous, gray pubescent; femora above dull ochraceous. Antennae with scape piceous, third segment dark reddish-brown, rest paler; covered thinly with pale grayish-brown pubescence, from third distinctly annulate basally with gray.

Head finely, densely punctate; front broadly concave between antennal tubercles, finely, densely punctate, with numerous, coarse punctures interspersed; genae vertical, rugose, feebly pubescent; eye with lower lobe oblong-ovate, about one-quarter again the height of gena; antennal tubercles prominent, not armed apically. Pronotum transverse, apex broader than base; apical transverse sulcus shallow, straight, the basal one deep, short, not attaining sides; disk transversely multicarinulate, the median carinules not attaining sides and the lateral discal ones interrupted at middle; lateral tubercles very feeble, almost wanting, sides above them punctate-granulate. Scutellum transverse, sides nearly straight, oblique, apex rounded. Elytra with sides broadly arcuate, attenuate apically, apices together rounded; extreme base smooth, at middle of each elytron with six to eight large granules, well spaced, irregularly placed, around them are scattered small ones,



coarsely and densely punctate thence to apex, punctures gradually finer apically; humeri obliquely rounded, with a blunt, large tubercle at posterior angle, behind these are several large granules and around them small ones. Procoxae tumid, not tuberculate before; profemora broadly clavate from basal third, not rugose, other femora clavate. Fifth sternite one-half longer than fourth, feebly emarginate apically, triangularly impressed medially. Antennae not quite so long as body, feebly and shortly fimbriate on proximal segments; scape short, robust, clavate, internally at base with two or three feeble grooves, rest of surface finely, densely punctate; third segment more robust than remaining ones.

LENGTH 17 mm.; width 6.3 mm.

*Holotype*.—Female; Buena Vista, Colombia; (S. C. Patchett); [U.S.N.M. number 57199].

### *Oncideres germarii* Thomson

PLATE XII, FIGURE 5

*Oncideres germarii* Thomson, Physis, II, 1868, p. 79. Bruch, Not. Mus. La Plata, Zool, VI, (50), 1941, p. 355, pl. 1-4.

Closely related to *O. saga*, differing in lack of white macula or vitta on sides of sterna; pronotum without ochraceous band; elytral maculae finer and more numerous, continued to extreme basal margin; the different sculpturing of pronotum and elytra; antennal segments from third abruptly paler, much lighter in color than in *saga*, and scape externally rugosely punctate.

**MALE.** Elongate-ovate, robust, subcylindrical; elytra convex; head and pronotum dark brown to piceous, elytra dark brown. Head with gray and fulvous variegated pubescence; eye very narrowly margined behind with fulvous, as is the front on either side; gena thinly pubescent. Pronotum yellowish-gray pubescent, sometimes with a very faint fulvous band before the narrow glabrous median line; apical margin densely fimbriate with pale fulvous. Scutellum and elytra thinly covered with yellowish-gray pubescence; entire elytra, even on extreme base, very minutely irrorate with whitish, often clustered to form larger maculae. Beneath yellowish-gray pubescent, sometimes somewhat variegated with fulvous; sterna laterally usually with an indistinct, brown vitta; sternites apically fringed with yellowish or fulvous. Legs dark-reddish brown, covered with yellowish-gray pubescence, deeper in color on the upper side. Antennae with proximal two segments piceous or black, distal segments much paler, dark or light reddish-brown; rather densely covered with yellowish-gray pubescence.

Head finely, densely punctate; front moderately concave between antennal tubercles, finely, densely punctate, with a moderate number of coarse, deep punctures interspersed, lower quarter granulate; gena scabrose; eye oblong, one and one-third times as tall as gena; antennal tubercles feeble, at apex shortly horned. Pronotum transverse, base narrower than apex, somewhat constricted behind lateral tubercles, which are small and with a short, blunt apex; disk at middle with a transverse, glabrous carina, each side of center with from four to six fine carinules,

arranged fan-like towards apex, arcuate, then running to sides; on base of lateral tubercles with a few punctate-granules. Scutellum transverse, sides nearly straight, slightly oblique, apex broadly rounded. Elytra feebly widened behind middle, apices together rounded; extreme base broader, smooth, each base thence with about four to six moderate-sized, rounded granules, rest of elytra absolutely punctate; humeri feebly rounded, entire angle glabrous, terminating in a tubercle which is only slightly larger than discal ones, with about six or eight small ones scattered around it. Procoxae tumid, with a distinct tubercle below, not before, rather obtuse; profemora slightly wider at base, sides nearly parallel, basal two-thirds finely, densely rugose before and behind, other femora clavate. Fifth sternite about one and one-third times length of fourth, emarginate at apex. Antennae one-half longer than body; scape abruptly clavate from middle, transversely grooved or rugose internally at base, externally distinctly rugosely punctate; fringed beneath on third and fourth segments, with scattered hairs on others.

FEMALE. More robust, head very feebly concave between antennal tubercles; elytra distinctly wider behind middle; procoxae only tumid, profemora gradually clavate, not rugose; fifth sternite about one and one-half times length of fourth, emarginate at apex; deeply triangularly impressed at middle; antennae just a little longer than body, scape more slender, grooved internally at base on larger specimens, shallowly punctate externally.

LENGTH 16-24 mm.; width 6-9.5 mm.

*Type locality*.—Paraná.

*Distribution*.—From Bolivia to southern Brazil.

BOLIVIA: ♀; Tacaurandi to Buenavista; (I. W. Rand); [U.S.N.M.]. ♀; Villa Montes to Boyuibe, July 1920; (G. L. Harrington); [U.S.N.M.]. ♀; Villa Montes, March 22; [U.S.N.M.].

ARGENTINA: 2 ♂; Prov. de Salta, 1927-28; (G. L. Harrington); [U.S.N.M.]. ♂; Córdoba, Jan. 1914; [L. Lacey].

"BRAZIL?": ♂; [M.C.Z.].

## **Oncideres saga saga Dalman**

PLATE XII, FIGURE 6

*Lamia saga* Dalman, Ann. Ent., 1823, p. 69.

*Oncideres saga* Dalman, Castelnau, Hist. Nat. Col., II, 1840, p. 475. Müller, Kosmos, XIX, 1836, p. 38.

*Lamia vomica* Germar, Ins. Spec. Nov., 1842,<sup>6</sup>p. 483.

*Oncideres vomica* Germar, Serville, Ann. Soc. Ent. France, IV, 1835, p. 67. Thomson, Syst. Cerambyc., 1864, p. 104.

*Oncideres gutturator* auct. [Non *Lamia gutturator* Fabricius].

Recognizable by the dense irroration of the elytra, base of which is very sparsely granulate; pronotum banded with ochraceous before the black transverse carina; and sterna white vittate laterally. The

maculae of the elytra usually form rosettes, which are to be found only in a few related species.

**MALR.** Elongate-ovate, robust, subcylindrical, elytra convex; head and pronotum piceous to black, and elytra dark reddish-brown. Head more or less ochraceous pubescent, often gray on occiput; eye posteriorly margined with a heavy band of ochraceous as is the front on each side. Pronotum either gray or fulvous, with a transverse, ochraceous band just before the median, transverse, black carina. Scutellum brownish-fulvous or grayish-brown, sometimes extreme base tends to be ochraceous. Elytra entirely brownish-fulvous or grayish-brown, base often ochraceous, disk uniformly covered with very small, indistinct, white maculae, these often clustered to form larger, scattered ones. Beneath dark reddish-brown, yellowish-gray pubescent; sterna each side with a narrow, linear, whitish macula, not sharply delimited; abdominal sternites apically margined with ochraceous or fulvous, laterally very narrowly vittate with whitish. Legs fuscous or black, gray pubescent beneath, more or less ochraceous above. Antennae with first two segments piceous or black, rest paler, usually covered with fulvous or fulvous-gray pubescence.

Head above rather finely, densely punctate; front broadly concave between antennal tubercles, very finely, densely punctate, with numerous coarser punctures interspersed; genae glabrous, rugose; eye with lower lobe oblong, about one and one-half times as tall as gena; antennal tubercles only slightly prominent, at apex with a feeble vertical horn. Pronotum transverse, base constricted behind lateral tubercle; disk at middle with a single, fine, median carina, which is sometimes sinuate, laterally often branched into several carinules; lateral tubercles feeble, with a short, blunt apex. Scutellum feebly transverse, with sides nearly straight, oblique; apex rounded. Elytra with sides nearly straight, tapering, very indistinctly widened behind middle, apices together rounded; base with a few, coarse, scattered granules, varying greatly in number and disposition, rest of disk with shallow, fine, feeble punctures to apex; humeri feebly rounded, entire angle glabrous, terminal tubercle no larger than those on disk. Procoxae with a prominent, large, blunt tubercle projecting downward; profemora with sides nearly parallel, widest basally, densely transversely rugose on basal two-thirds before and behind; fifth sternite slightly longer than fourth, feebly emarginate at apex. Antennae about two-thirds longer than body; scape abruptly clubbed on apical third, with very deep grooves on basal two-thirds on both sides; fringed distinctly beneath on third, fourth, and fifth segments.

**FEMALE.** More robust; front nearly flat between antennal tubercles; elytra much widened behind middle; procoxae only slightly tumid, not armed; all femora clavate, profemora not rugose; fifth sternite half again as long as fourth, apex emarginate, a deep triangular impression medially; antennae as long as body or slightly shorter, scapo more slender, feebly rugose internally on basal third.

LENGTH 17-26.8 mm.; width 6.5-10.7 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

BRAZIL: 5 ♂, 6 ♀; no locality data, [♂, 2 ♀—(A.M.N.H.); 1 ♀;—Minn. U.; 2 ♂, 3 ♀—M.C.Z.; ♂—A.N.S.P.; ♂—C.U.]. ♀; São Paulo, S. P., January, 1922; [C.A.S.]. 2 ♂; São Paulo; [M.C.Z.]. ♀; Corumba; [C.M.]. 2 ♂, 2 ♀;

Vinca, Minas Geraes; 1931; (Y. Mexia); [C.A.S.]. ♀; Rio de Janeiro; [A.M.N.H.]. 4 ♂, 3 ♀; Rio de Janeiro, Oct. and Nov.; [C.M.]. ♀; Santa Gallo; (Touscher); [M.C.Z.]. ♂, ♀; Santa Catharina; [M.C.Z.]. 2 ♂, ♀; Rio de Janeiro; (D. Bourget); [M.C.Z.]. 6 ♂, 2 ♀; Cachoeirinha, Paraná; (A. Maller); [L. Lacey]. ♂, ♀; Vargem Alta, Esp. Santo; Nov. 1939; (A. Maller); [L. Lacey]. ♂; Conduru, Esp. Santo; Oct. 1939; (A. Maller); [L. Lacey]. ♀; Rolandia, Paraná; Dec., 1939; (A. Maller); [L. Lacey].

NO LOCALITY DATA: ♂, [C.U.].

*Remarks.*—Many specimens of this and related species have been labelled as "*Oncideres gutturator* Fab." Fabricius' species was described, first of all, as from Africa (type in British Museum), and Olivier's figure of the insect shows that the humeri are not prominent, the fourth antennal segment longer than the third, a common triangular rosy space on the bases of the elytra, and the pronotal tubercle is at the middle, not behind it. More than likely, the species should be placed in the *Nipponini* or a related tribe.

### ***Oncideres saga amazona* Dillon and Dillon, subspec. nov.**

#### PLATE XII, FIGURE 7

Very similar to the nymotypic form, differing in the following manner: Pubescence above uniform in color, being a darker grayish-brown. Head not ochraceous; front only indistinctly vittate laterally. Pronotum not ochraceous basally and lacking the median ochraceous band; lateral tubercles terminating in a more robust process. Elytral maculation less dense, the minute ones tending somewhat to form rosettes, and there are a few, distinct larger, scattered ones; tuberculation on base more extensive than in either the nymotypic form or in *colombiana*. Ashy maculae on sides of thorax beneath more extensive and of a denser white.

MALE with frontal horns shorter and less distinct.

LENGTH 17-27 mm.; width 7-10 mm.

*Holotype.*—Male; Upper Amazons; [A.M.N.H.].

*Allotype.*—Female; Amazon; [A.M.N.H.].

*Paratypes.*—Female; Upper Amazons; [L. Lacey]. 3 males, 2 females; Cayenne; [M.C.Z.]. Male; Moemgo Boven, Cottica R., Suriname, May 21, 1927; [C.U.]. 2 males and 2 females; Santarem, Brazil, July, 1919; (S. M. Klages); [C.M.]. Male; Rockstone, Sept., 1913; [A.M.N.H.]. Female; Caparo, Trinidad, June, 1914; (S. M. Klages); [C.M.]. Male and female; Saint Jean, French Guiana; (Wm. Schaus); [U.S.N.M.]. Female; Tumatumari, Rio Potaro, British Guiana, March, 1912; [A.M.N.H.]. Female; Maracaibo, Suriname, [U.S.N.M.].

**Oncideres saga colombiana** Dillon and Dillon, subspec. nov.

PLATE XII, FIGURE 8

Resembles the nymtypic form in most respects. Differs in having the general pubescence above grayish-brown; head usually ochraceous; pronotum sometimes dimly ochraceous basally, without the transverse median ochraceous band (sometimes very faintly visible). Elytra either ochraceous-brown or yellowish-gray at extreme base; white maculae very minute, numerous but spaced, not clustered to form rosettes. Coloration beneath entirely similar.

MALE with frontal horn slightly more feeble. Pronotum often has the transverse carina somewhat interrupted.

LENGTH 16.5-27 mm.; width 6-10 mm.

*Holotype*.—Male; Rio Frio, Magdalena, Colombia, Dec., 1928; (P. J. Darlington); [M.C.Z.].

*Allotype*.—Female; same data as holotype; [M.C.Z.].

*Paratypes*.—Four males and fifteen females; topotypic; Dec., 1928 and Jan., 1929; (P. J. Darlington); [M.C.Z.]. Male and 2 females; Barro Colorado Island, Canal Zone; (M. Bates); [M.C.Z.]. Female; Barro Colorado Island, Canal Zone, winter of 1924; (W. C. Allee); [U.S.N.M.]. Male; Barrenca, Bermeja, Colombia, June 12, 1939, at light; (W. C. McIntyre); [L. Lacey].

**Oncideres limpida** Bates

*Oncideres limpidus* Bates, Ann. Mag. Nat. Hist., xvi (3) 1865, p. 179.

"Cylindrical; fuscous, shining; elytra irrorate with fulvous-ochraceous; head in male moderately narrowed; front punctate, ochraceous with a black vitta beneath eyes; antennal tubercles at apex slightly prominent, acute. Antennae longer than body, shining black; scape distinctly clavate, third and fourth segments densely ciliate beneath. Thorax narrowed behind; lateral tubercles moderately produced, black; disk ochraceous-brown, with a transverse black line; before at middle with a red-fulvous fascia. Elytra cylindrical, fuscous, shining, with very numerous, obscure, ochraceous-fulvous tomentose maculae; at base with few globose tubercles, thence sparsely granulate; humeri confluent tuberculate. Body beneath fulvous tomentose; legs blackish; femora fulvous tomentose. Length 10 lines ♂. Bahia, Brazil."

The above is a copy of the original description; no examples of the species have been encountered by the authors.

**Oncideres nivea** Dillon and Dillon, spec. nov.

PLATE XII, FIGURE 9

Maculation on elytra somewhat as in *O. saga amazona*, but pronotum has three indistinct black maculae in place of the transverse

carina; elytra more densely granulate; sides of sterna not as distinctly white maculate.

**FEMALE.** Elongate-ovate, robust, subcylindrical, elytra convex; piceous, elytra dark reddish-brown; entirely covered with pale yellowish-gray or fulvous-gray pubescence. Head with eye posteriorly margined with bright yellow-gray; front narrowly and indistinctly margined with bright yellow-gray. Pronotum indistinctly maculate with pale yellowish, especially on base. Elytra moderately covered with many, minute, irregularly shaped maculae, a few slightly larger, not agglomerated nor forming rosettes. Body beneath reddish-brown, rather densely clothed with hoary-gray pubescence; metasternum laterally very broadly whitish, the white not forming a sharply defined macula; abdominal sternites, especially third to fifth, sometimes fulvous variegated, more distinctly so on the apices. Legs dark reddish-brown, thinly hoary-gray pubescent, above pale-yellowish gray. Antennae dark reddish-brown, scape piceous; clothed with fine, rather sparse yellowish-gray pubescence.

Head finely alutaceous, and finely, rather densely punctate above; front broadly concave between antennal tubercles, finely, densely punctate, with scattered, coarse, deep ones intermixed; genae scabrose, thinly pubescent; eye with lower lobe oblong, one-half higher than gena; antennal tubercles feebly elevated, not armed. Pronotum transverse, apically wider, constricted behind lateral tubercles, which are very feeble, terminating in a short, blunt, robust process; apical and basal transverse sulci deep, distinct; entire surface minutely, densely punctate; disk at middle with two to four short, transverse carinae, either side of middle with a more or less transverse, feebly elevated tubercle, at sides of base with a number of punctate granules; before lateral tubercle each side two or four prominent, transverse rugosities. Scutellum transverse, sides arcuate, apex broadly rounded. Elytra very feebly widened behind basal third; apices together rounded; disk at extreme base smooth, then with a few, large, round, feebly elevated, well separated granules, followed by close-set, smaller ones, gradually diminishing to basal third, projecting posteriorly; thence punctate, punctures finer and more obsolete apically; humeri rounded, entirely occupied by a feebly elevated, arcuate glabrous tubercle and with small, feebly elevated, closely set granules along side. Procoxae prominent, unarmed; femora robust, clavate, profemora not rugose; fifth sternite only slightly longer than fourth, apex emarginate, with a broad, triangular impression at apex. Antennae a little longer than body, very slightly fimbriate on third and fourth segments; scape short, not nearly attaining apical quarter of pronotum, clavate, slender, densely, finely punctate, not rugose beneath.

LENGTH 17.5-22 mm.; width 6.5-7.5 mm.

*Holotype.* — Female; Santarem, Brazil, July, 1919; (S. M. Klages); [C.M.].

*Paratypes.* — 5 females; same data as type; [C.M.].

**Oncideres satyra** Bates

PLATE XII, FIGURE 10

*Oncideres satyrus* Bates, Ann. Nat. Hist. (3), XVI, 1865, p. 176.*Oncideres fulvus* Bates, idem.

Most nearly related to *O. saga colombiana* but differs greatly from it in coloration. The elytral maculae are widely spaced and larger; the pronotum has five maculae or a glabrous carina; and the lateral white macula beneath is very chalky, distinct, and confined to the metasternum.

MALE. Elongate-ovate, robust, subcylindrical, elytra convex; piceous or black, elytra dark reddish-brown, entirely covered with fulvous-brown pubescence. Head with eye rather narrowly margined posteriorly and front margined laterally, with paler fulvous; genae glabrous. Pronotum at middle with five black, shining, glabrous, more or less transverse maculae arranged in an undulating line, connected frequently to form a line, the central and extreme lateral ones closest to base, around these are indistinct, pale maculae. Elytra with many, very small, white maculae, widely separated, in between which are minute dots of white; base with few black granules. Beneath dark reddish-brown, clothed with paler fulvous-brown pubescence; metasternum laterally with a large, chalky-white macula; sternites at apices fringed with yellowish. Legs dark reddish-brown to fuscous, covered all over with yellowish-gray pubescence, which is slightly darker above. Antennae with first two segments piceous, rest gradually paler; thinly covered with grayish-brown pubescence.

Head above finely, densely punctate; front moderately concave between antennal tubercles, finely, densely punctate, with moderately-spaced, coarse, deep punctures interspersed; genae scabrose; eye with lower lobe oblong, about twice height of gena; antennal tubercles feeble, very minutely produced at apex. Pronotum transverse, apex wider than base, where it is constricted behind lateral tubercles; disk with five small, more or less transverse tubercles medially in a sinuous line sometimes more or less cariniform; lateral tubercles feebly elevated, terminating in a short, blunt process; base of disk and lateral tubercles with a moderate number of punctate granules. Scutellum transverse; sides nearly straight, oblique; apex more or less emarginately-truncate. Elytra with sides nearly straight, tapering to apices, which are together rounded; extreme base smooth, then on each elytron with from four to six, large, unarranged granules, mostly on subgibbose area, with a few smaller ones; disk moderately finely punctate, more obsoletely so apically; humeri feebly rounded, with a single granule at hind angle, behind this a few unequal granules irregularly placed. Procoxae tumid, with a broad, feeble, obtuse tubercle internally below; profemora with sides nearly parallel, slightly wider basally, transversely rugose both sides on basal two-thirds, other femora clavate. Fifth sternite slightly longer than fourth, emarginate at apex. Antennae from one and one-half to one and two-thirds times length of body, fringed beneath on scape and third, less on former and on fourth and slightly on remaining segments; scape robust, clavate, grooved internally at base, externally obsoletely punctate.

**FEMALE.** More robust; front only very feebly concave between antennal tubercles; elytra slightly widened behind middle; procoxae tumid but unarmed; profemora clavate, not rugose; fifth sternite one and one-half times length of fourth, emarginate at apex, with a rather deep triangular impression abruptly widened apically; antennae as long as body or slightly shorter, fringed on first segment, more heavily on third, thence decreasing to apex; scape slender, internally at base feebly grooved.

LENGTH 18-24 mm.; width 6-10 mm.

*Type locality.*—Pará.

*Distribution.*—Amazon drainage basin.

**PERU:** ♀; Rio Huallaga; Oct., 1930; [A.M.N.H.]. ♀; Satipo Valley, Junin Prov.; Dec., 1940; (A. Maller); [L. Lacey]. ♀; Ollantaytambo, April 23, 1915; (O. F. Cook); [U.S.N.M.]. ♂, 2 ♀; Sani Beni, Junin Prov; Nov. 13, 20, 1935; (F. Woytkowski); [L. Lacey].

**BOLIVIA:** ♂; Buena Vista, Prov. del Sara; Nov., 1913; [C.M.].

**BRAZIL:** ♂; São Paulo de Olivença, March, 1925; (S. Klages); [C.M.]. 2 ♀; Santarem; [C.M.].

NO LOCALITY DATA; ♂, ♀; [Wd's. N. Sci. Est.].

### *Oncideres digna* Bates

PLATE XII, FIGURE 11

*Oncideres dignus* Bates, Ann. Nat. Hist. (3), xvi, 1865, p. 178.

Most easily distinguished from *O. satyrus* by the total lack of the white sternal macula. Moreover, the base of each elytron has the larger granules arranged in two rows, and the maculae are more reduced in number.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra convex; piceous or black, elytra reddish-brown to dark brown; entirely clothed with fine brownish-gray pubescence. Head with eye narrowly fulvous margined posteriorly; front narrowly vittate with fulvous each side. Pronotum with five glabrous black maculae in an undulating line across middle, these surrounded by vague, fulvous maculae. Elytra with a few, distant, very small, white maculae on apical two-thirds and with minute atoms of white interspersed, mostly concentrated on apex and sides; base with a few shining granules. Beneath reddish-brown, thinly clothed with a fine, pale grayish pubescence; sterna laterally with darker pubescence; sternites fringed with yellowish-gray. Legs dark reddish-brown, clothed with grayish pubescence, above admixed with fulvous. Antennae with two proximal segments piceous, rest reddish-brown; thinly gray pubescent.

Head finely densely punctate above; front between antennal tubercles moderately concave, finely densely punctate, with a moderate number of coarse, deep punctures; gena glabrous, scabrose; eye with lower lobe oblong, about one and one-half times height of gena; antennal tubercles feeble, very feebly produced at



apex. Pronotum transverse, apex wider than base, constricted behind lateral tubercles, which are very feebly elevated; disk with five more or less transverse tubercles in a sinuous line; base as well as base of lateral tubercles with a few punctate granules. Scutellum transverse, sides nearly straight, apex moderately rounded. Elytra with sides almost straight, tapering to apices, which are together rounded; extreme base smooth, thence on each elytron with four to eight larger tubercles on subgibbose portion, arranged in two rows, on either side of these are very small granules, extending beyond basal third, all over rather shallowly, somewhat coarsely punctate, punctures finer and more obsolete apically; humeri rounded, at hind angle with a single tubercle, before with many smaller ones; below humerus on sides with a row or two of granules extending to basal third. Procoxae tumid, with a broad, very feeble, obtuse tubercle internally beneath; profemora with sides nearly parallel, transversely rugose nearly to apex on both sides, other femora clavate. Fifth sternite slightly longer than fourth; feebly emarginate at apex. Antennae one and one-half times length of body; scape slender, only very feebly clavate, transversely rugose all over; fringed on first, third, and fourth segments.

**FEMALE.** More robust; front feebly concave between antennal tubercles; elytra only slightly widened behind middle; procoxae tumid, but unarmed; profemora feebly clavate, not rugose; fifth sternite one and one-half times length of fourth, emarginate apically, with a very deep obcordate impression, its tip constricted and acute; antennae about as long as body, scape slender, feebly clavate, not rugose; fringed to apex, but only distinctly so on proximal four segments.

LENGTH 17-24.5 mm.; width 6.5-9.5 mm.

*Type locality.*—Ega, Upper Amazons.

*Distribution.*—Northwestern South America.

BRAZIL: ♂; Santarem; [C.M.].

SURINAME: ♀; no locality data; (Brutendyk Luden); [A.M.N.II.].

COLOMBIA: ♀; Fresno, Tolima; (F. J. Otoya); [U.S.N.M.].

PERU: 2 ♀; Chanchamayo; [A.M.N.H.]. 2 ♀; Satipo Valley, Junin Prov., March, 1940; (A. Maller); [L. Lacey].

NO LOCALITY DATA: ♀; [Minn. U.].

### ***Oncideres philosipes* Dillon and Dillon, spec. nov.**

PLATE XII, FIGURE 12

Closely related to *O. digna* but much larger; the antennae are much more robust, especially in the male; elytra have well spaced, very small, rounded, black maculae, the pubescent maculae are orangish-white, not chalky as in *digna*; and humeri with a cluster of granules, none of which are distinctly larger.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra convex; black densely covered with ochraceous-brown pubescence. Eyes indistinctly margined with ochraceous. Pronotum with five glabrous maculae; the middle one strongly transverse,

the others rounded or slightly transverse. Elytra behind basal quarter with a few scattered, very small, round or elongate, orangish-white maculae, intermixed with even smaller, rounded, glabrous maculae, which are more numerous. Body beneath dark reddish-brown or piceous, densely fulvous-brown pubescent; mesosternal side-pieces, metepisterna, and metasternum laterally dark brown pubescent; sternites each with an irregular, glabrous macula laterally, the ones on last sternite less distinct. Legs piceous or black, ochraceous-brown pubescent. Antennae with scape piceous, rest dark reddish-brown, thinly covered beneath with fulvous-brown pubescence, above and entire scape dark brownish pubescent.

Head minutely, densely alutaceous; front elongate, sides nearly straight, minutely alutaceous, with a few coarse punctures interspersed, feebly concave between antennal tubercles; genae very transverse, minutely alutaceous, lower half coarsely, densely punctate; eye with lower lobe broadly oblong, about twice genal height; antennal tubercles moderately prominent, feebly produced at apex. Pronotum transverse, sides feebly arcuate, apex slightly wider than base; apical and basal transverse sulci wide and shallow; disk at middle with five small tubercles in a nearly straight line, middle one more strongly transverse; lateral tubercles feeble, with a very short, robust, upturned process. Scutellum transverse, sides nearly straight, oblique, apex rounded. Elytra with sides nearly straight, tapering to apices, which are together rounded; each disk on basal quarter with two more or less irregular rows of large granules, laterally behind humerus with more numerous, smaller granules, then to middle with very small, scattered granules, to apex replaced by granulate-punctures; humeri prominent, anterior margin strongly arcuate, with a cluster of equal-sized granules. Procoxae globose, with a very broad, feebly elevated, obtuse tubercle anteriorly; profemora with sides nearly parallel, transversely rugose on posterior and anterior faces nearly to apex, other femora gradually clavate; protarsi slightly dilated. Fifth sternite one-quarter again as long as fourth, apex broadly rounded. Antennae robust, with seventh segment attaining elytral apex; scape reaching beyond middle of pronotum, gradually clavate, rugose on sides for nearly its entire length; third and fourth segments more robust than usual in this group; very finely fimbriate beneath on scape and on third to sixth segments.

FEMALE. More robust; head much broader, vertex not concave, front widened above; antennal tubercles very feeble, widely separated, unarmed; pronotum a little more transverse; elytra slightly expanded behind middle; procoxae not globose, nearly unarmed; profemora slightly clavate, not rugose; fifth sternite half again as long as fourth, at apex feebly emarginate and with a feeble triangular impression; antennae much more slender, only as long as body, scape slender, reaching not quite to middle of pronotum, gradually clavate, finely, densely punctate.

LENGTH 25-28 mm.; width 10-11 mm.

*Holotype*.—Male; La Merced, Junin prov., Peru, August 1942; (J. Soukup); [L. Lacey].

*Allotype*.—Female; San Luis de Shuaro, Junin Prov., Peru; August 1941; (J. Soukup); [L. Lacey].

**Oncideres aegrota** Thomson

PLATE XII, FIGURE 13

*Oncideres aegrota* Dejean, Cat. Col., 1837, p. 369. (nom nud.).*Oncideres aegrota* Thomson, Physis, II, 1868, p. 80. Müller, Kosmos, XIX, 1886, p. 36.

Has somewhat the appearance of *O. saga* but lacks the carina on pronotum and the preceding band of ochraceous, having, instead, five black maculae. The elytral granules are larger, more or less arranged in two irregular rows, and the sterna laterally are brownish-fulvous instead of white.

♂ MALE. Elongate-ovate, moderately robust, subcylindrical, clytra convex; piceous or black, elytra dark reddish-brown. Head brownish-fulvous pubescent; eye posteriorly narrowly margined with lighter fulvous; front either side very narrowly margined with fulvous. Pronotum covered with brownish-fulvous pubescence, with five glabrous, black, shining, more or less transverse maculae at middle arranged in an undulating line, the central and extreme lateral ones nearest the base; at middle, around these glabrous maculae are vague, fulvous ones. Scutellum brownish-fulvous pubescent. Elytra brownish-fulvous pubescent, sometimes paler at extreme base; apical two-thirds of disk with many, minute, whitish maculae, each elytron with from ten to twenty larger white maculae, these are all irregular in outline and irregularly placed. Beneath reddish-brown, covered with pale gray pubescence; sterna laterally brownish-fulvous, sternites indistinctly margined with yellowish-gray at apices. Legs dark-brown, gray pubescent beneath; above brownish-fulvous. Antennae with two proximal segments piceous or black, rest slightly paler; thinly clothed with pale gray pubescence, apical third of each segment somewhat darker.

Head very finely, densely punctate; front deeply concave between antennal tubercles, finely, densely punctate, with a moderate number of coarse, rather deep punctures interspersed; gena glabrous, rugosely punctate; eye with lower lobe oblong, nearly twice as tall as gena; antennal tubercles feeble, with only a very short process at apex. Pronotum transverse, base narrower than apex, broadly constricted behind lateral tubercles which are feeble, terminating in a short, subacute process; apical margin sinuate; disk with five more or less transverse, glabrous tubercles in an undulating line, base of disk and base of lateral tubercles with a moderate amount of punctate tubercles. Scutellum slightly transverse, with sides nearly straight, slightly oblique, apex broadly rounded. Elytra gradually attenuate to apices, less distinctly so behind middle; apices together rounded; extreme base smooth, each then with from three to six large granules arranged more or less in two irregular rows on subgibbose portion and a few much smaller ones; between granules are close-set, coarse, shallow punctures, becoming finer and more obsolete apically; humeri rounded, with a cluster of from six to eight small granules, behind, as well as below, with a row of small granules. Procoxae less tumid than usual, tubercle obsolete and broad; profemora feebly arcuate, slightly wider apically, finely, transversely rugose below and above for nearly full length, other femora

clavate. Fifth sternite only slightly longer than fourth, emarginate at apex. Antennae about one and two-thirds times body length; scape less robust than usual, transversely rugose for entire length, more irregularly so apically; slightly fringed on third and fourth segments, rest with scattered hairs beneath.

**FEMALE.** More robust; front slightly and broadly concave between antennal tubercles, which are feeble and not produced at apex; procoxae only feebly tumid; profemora not rugose, clavate from basal third; fifth sternite one and one-half times length of fourth, emarginate at apex, with a deep, triangular impression, which is very broad apically; antennae with scape slender, clavate after middle, not rugose.

LENGTH 17-26 mm.; width 6-10 mm.

*Type locality.*—Brazil and Cayenne.

*Distribution.*—French Guiana, Paraguay, and southeastern Brazil.

PARAGUAY: 2 ♂, ♀; San Bernardino, Nov. 8, girdling *Nectandra* species; (K. Feibrig); [U.S.N.M.].

BRAZIL: 2 ♀; No locality data; [M.C.Z.]. ♂, ♀; Rio Grande de Sul; [A.N.S.P.—♂; M.C.Z.—♀]. ♂, ♀; São Paulo; [M.C.Z.]. 2 ♂, 3 ♀; Hansa Humboldt, Santa Catharina, Nov.—Dec., 1934; (A. Maller); [L. Lacey]. ♂; Nova Teutonia, Dec. 18, 1936; (F. Plaumann); [U.S.N.M.]. ♀; Therapopolis, S. C. (Fruhstorfer); [A.N.S.P.]. ♀; Nova Friburgo; [M.C.Z.]. ♂; Faxina, S. P., Nov. 1934; (A. Maller); [L. Lacey]. 2 ♂, 5 ♀; Nova Teutonia, Nov. 1933; (F. Plaumann); [L. Lacey]. ♂, ♀; Cachoeirinha, Paraná, Oct.—Nov. 1939; (A. Maller); [L. Lacey].

FRENCH GUIANA: ♀; Cayenne; [M.C.Z.].

## *Oncideres humeralis* Thomson

PLATE XII, FIGURE 14

*Oncideres humeralis* Chevrolat, mss.

*Oncideres humeralis* Thomson, *Physis*, II, 1868, p. 86.

Distinguished by its uniform fulvous pubescence and by the basal quarter of elytra being minutely, densely granulate. The horns of the male are very short, robust, and emarginate; the third segment of the antennae in this sex is robust, with the sides parallel.

**MALE.** Elongate-ovate, rather slender, subcylindrical, elytra convex; black, elytra light reddish-brown; entirely covered with fulvous pubescence. Head with eye rather broadly margined with ochraceous; front nearly entirely ochraceous, more or less forming a broad vitta either side; genae glabrous. Pronotum with five more or less transverse tubercles at middle in a straight line, with a faint band of paler pubescence before and behind them; pubescence of pronotum irregular, usually fulvous, with ochraceous apically and basally, sometimes with fulvous and ochraceous intermixed. Elytra with basal quarter having rather dense, fine, light reddish-brown granules; remainder of disk rather densely maculate with irregular, densely placed, small, whitish dots, which sometimes have a tendency to

coalesce and form vermiculate lines; humeri black. Beneath light reddish-brown, rather densely covered and fulvous and gray pubescence, the former predominating; sterna laterally broadly ochraceous. Legs piceous, fulvous pubescent, above intermixed with fulvous-ochraceous. Antennae with first two segments piceous, rest reddish-brown to pale reddish-brown; scape thinly, finely, ochraceous pubescent; following with very fine, sparse, fulvous pubescence.

Head with front concave between antennal tubercles, finely, densely punctate, with a few, coarse punctures intermingled; gena rugose; eye with lower lobe nearly oblong, wider above, nearly twice height of gena; antennal tubercle only slightly prominent, produced at apex into a short, robust horn, which is emarginate at apex. Pronotum transverse, apex only slightly wider than base, which is narrowly constricted behind lateral tubercles; these are robust, conical, moderately elevated, terminating in a robust, elongate, very blunt process; disk medially with five more or less transverse, feebly elevated tubercles in a straight line, these sometimes connected; base of disk and of lateral tubercles with a few punctate granules. Scutellum transverse, sides nearly straight, oblique, apex subtruncate. Elytra with sides nearly straight to apical quarter, then tapering to apices, which are together narrowly rounded; disk at extreme base smooth, thence on basal quarter rather densely, finely granulate-punctate, followed by dense, fine, deep punctures, which become shallower and more obsolete after middle to apex; humeri slightly oblique, angulate, glabrous along basal margin, the entire apex occupied by a low, broad tubercle. Procoxae tumid, with a distinct, subacute tubercle; profemora with sides parallel, from apical third abruptly clavate, transversely rugose on basal two-thirds below, above feebly so to middle, other femora clavate. Fifth sternite only slightly longer than fourth, apex feebly emarginate. Antennae from one-half to two-thirds longer than body; scape short, robust, clavate apically, at base internally with a very deep groove, externally from three to four rather deep grooves; third segment more or less swollen, but not so robust as scape; with a rather long fringe beneath on first, third, fourth, and fifth segments.

**FEMALE.** More robust; front broadly concave between antennal tubercles, which are very shortly produced internally; elytra more robust, procoxae tumid and with a low, obtuse tubercle; profemora clavate, not rugose; fifth sternite one and one-half times the length of fourth, emarginate apically, with a deep, triangular impression; antennae one and one-quarter times body length; scape less robust, and less distinctly but similarly grooved; third a little less robust; all segments with darker pubescence apically.

LENGTH 17-27.5 mm.; width 6.2-8.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Brazil.

**BRAZIL:** ♂, ♀; no locality data; [M.C.Z.]. 2 ♂; Nova Friburgo; [M.C.Z.]. ♂; Faxina, São Paulo, Dec. 1937; (A. Maller); [L. Lacey].

### **Oncideres cervina** Thomson

PLATE XII, FIGURE 15

● *Oncideres cervina* Chevrolat, mss.

● *Oncideres cervina* Thomson, Physis, II, 1868, p. 87.

Differs from the other members of genus in having prothorax entirely unarmed, and with many transverse carinae; head transversely rugose above; procoxae not enlarged; and elytra minutely irrorate with fulvous.

**MALE.** Elongate-ovate, rather slender, subcylindrical, elytra subconvex; dark brown to fuscous, covered with ochraceous pubescence, suffused with sooty brown on head and pronotum laterally; elytra sparsely gray, with numerous coalesced maculae of dense, ochraceous pubescence. Beneath fuscous or dark brown, covered with fulvous and gray variegated pubescence, on thorax with a sooty brown area extending posteriorly to mesocoxae, running obliquely to epipleurae and then forward diagonally to humeri. Antennae fuscous, paler distally, rather thinly covered with a reddish-fulvous pubescence, grayer on distal segments. Legs dark brown to fuscous; beneath grayish, above fulvous pubescent.

Head distinctly transversely rugose above; front with deep, pit-like punctures, especially near antennal tubercles, below transversely rugose, between antennae strongly convex; eyes about one and two-thirds times height of genae, oblong; antennal tubercles feeble, with very short horns at apex, directed vertically; genae scabrose. Pronotum transverse, base and apex subequal, sides feebly arcuate, entirely unarmed; apical margin feebly emarginate; entire disk covered with many distinct, transverse carinae. Scutellum very transverse, sides nearly straight, feebly oblique, apex subtruncate; disk with a glabrous median line, widest at base. Elytra narrowed at basal quarter, then parallel-sided to near apex, apices narrowly rounded, suture minutely produced; extrinc base smooth, on humeri and near scutellum with a few minute granules, thence to apex with moderately placed, deep, fine punctures; humeri right-angular, with a small tubercle at angle, a straight moderate carina along basal edge from basal angle of pronotum. Procoxae not tumid, with an acute, small tubercle internally before; femora feebly clubbed beyond middle, profemora slightly dilated apically, rugose transversely on basal half; tibiae distinctly shorter than femora. Fifth sternite one and one-half times length of fourth, feebly emarginate at apex, with a broad, flat impression occupying most of the side, remaining sternites somewhat similarly but less extensively impressed. Antennae one and one-third times length of body; scape arcuate, rather short, strongly clavate, beneath broadly rugose, at least to middle; third straight, slender; fringed beneath on third, feebly on fourth and fifth, segments.

**FEMALE.** More robust; front flat and broader between antennal tubercles; pronotum wider at apex than at base; elytra widened behind middle; procoxae small, unarmed; profemora not rugose; tibiae indistinctly shorter than femora, metatibiae more strongly shortened; fifth sternite nearly twice as long as fourth, truncate at apex, with a narrow, long, triangular impression at middle; antennae slightly shorter than body; scape more slender; fringed on third, feebly on fourth and fifth.

LENGTH 20.5-29.5 mm.; width 6.9-8.2 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

NO LOCALITY DATA: 2 ♀ [M.C.Z.].

BRAZIL: 2 ♂, 4 ♀; no locality data; [M.C.Z.—♂, 3 ♀; A.N.S.P.—♂, ♀ "co-type"]. ♀; São Paulo, Dec. 7, 1915; (Saude); [C.A.S.]. 8 ♂, ♀; Nova Teutonia, Nov.—Dec. 1937; (F. Plaumann); [L. Lacey]. 2 ♀; Nova Teutonia, Santa Catharina, Dec. 6, 1936; (F. Plaumann); [L. Lacey]. ♀; Rolandia, Paraná, Dec. 19, 1939; (A. Maller); [L. Lacey]. ♂; Nova Friburgo, Feb. 1884; (P. Germain); [A.N.S.P.].

## *Oncideres albomarginata* Thomson

### PLATE XIII, FIGURE 1

*Oncideres albomarginata* Dejean, Cat. Col., 1837, p. 369. [nom. nud.].

*Oncideres albomarginata* Thomson, Physis, II, 1868, p. 80. Bates, Biol. Centr.-Amcr., Col., v, 1880, p. 125, pl. 9, f. 12.

This is the only species of the genus which has the elytra broadly margined laterally with a white vitta.

MALE. Elongate-ovate, robust, subcylindrical, elytra subconvex; fuscous to black, elytra sometimes dark reddish-brown. Head rather densely reddish-ochraceous to brownish pubescent, sometimes variegated with gray; hind margin of eye outlined with a wide band of reddish-ochraceous; frontal marginal line much narrower; genal stripes wanting. Pronotum reddish-ochraceous, or reddish-fulvous variegated with gray, or vice versa, with a fine, glabrous line, more or less broken into five parts. Scutellum reddish-ochraceous, sometimes slightly grayish. Elytra gray pubescent, extreme base reddish-ochraceous or reddish-fulvous, rest of disk with many, irregular, reddish-fulvous or fulvous-orange maculae, sometimes coalescent, especially basally, base with small, shining, black granules, along lateral edge a broad, white vitta, oblique and anteriorly ending before humerus, attenuate behind, not attaining apex, usually outlined on inner margin and sometimes on outer border with small, black granules; frequently behind middle an indefinite, white, oblique fascia, not attaining suture. Beneath gray pubescent, apices of sternites and sides broadly with fulvous-orange pubescence. Antennae piceous to black, paler distally, grayish or grayish-brown pubescent. Legs dark brown to fuscous, covered with gray pubescence; femora above brownish pubescent.

Head finely, densely punctate above; front concave between antennal tubercles, finely, densely punctate, with a few larger punctures scattered over surface; eyes oval, only one-half again as large as gena; antennal tubercles feebly elevated, unarmed. Pronotum transverse, base slightly narrower than apex, constricted behind lateral tubercles, which are feebly elevated, ending in a rather long, blunt spine; disk with feeble carinae or a small tubercle at middle, with two more or less transverse tubercles either side, apical and basal sulci feeble; sides before lateral tubercles transversely rugose. Scutellum transverse, sides feebly arcuate, somewhat oblique, apex broadly rounded. Elytra with sides nearly straight, tapering to apices, which are together rounded; disk at extreme base narrowly smooth, on basal quarter with granules, those near scutellum and on humeri larger, then becoming glabrous punctures to apex; humeri feebly rounded, glabrous, shining along basal margin, without any distinct tubercle at angle. Procoxae enlarged, armed before with an obtuse

tubercle; femora robust, clavate, profemora more or less parallel-sided, transversely rugose above and below. Fifth sternite only slightly longer than fourth, apex emarginate, with a feeble, triangular impression at middle. Antennae about one and two-thirds times body length; scape clavate, feebly, transversely rugose externally, beneath strongly so; rather heavily fimbriate to fourth segment, more scantily so to sixth.

**FEMALE.** Front not (or very feebly) concave between antennal tubercles; elytra indistinctly widened behind middle; procoxae not armed, but slightly tumid before; profemora feebly clavate, at base indistinctly rugose; fifth sternite longer than fourth, emarginate at apex, distinctly, triangularly impressed at middle; antennal scape not so robust, not rugose; fringe more extensive.

LENGTH 21.5-26.5 mm.; width 8-10 mm.

*Type locality.*—Cayenne.

*Distribution.*—Extreme northwestern South America, Trinidad, and Central America to Costa Rica.

**ECUADOR:** 1 ♂, 3 ♀; Portoviejo, July 5, 1939; "cuts cotton stens, etc." (F. Campos); [U.S.N.M.]. ♂; Bucay, 3000 m.; (F. Campos); [U.S.N.M.].

**TRINIDAD:** ♂; Port-of-Spain, Sept. 25, 1901; (H. Carciniola); [U.S.N.M.].

**COLOMBIA:** ♂; no locality data; (F. Ovalle); [A.M.N.H.]. ♀; Barrenca, Bermeja, May 17, 1939, at light; (W. E. M. Munro); [L. Lacey].

**FRENCH GUIANA:** 2 ♀; Cayenne; [M.C.Z.—1; A.N.S.P.—1].

**COSTA RICA:** ♂; no locality data; (Underwood); [M.C.Z.].

### ***Oncideres maxima* Dillon and Dillon, spec. nov.**

#### PLATE XIII, FIGURE 2

Most nearly resembles *O. irrorata* Melzer in elytra being glabrous between the maculae, but has, besides the dense minute ones, a few, large, scattered maculae from basal quarter to apex. The base of the elytra is more or less gibbose and has large granules on the gibbositities, extending to basal third, and the pronotum has five, shining, glabrous maculae in place of the carina.

**FEMALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; dark reddish-brown or piceous, elytra somewhat paler; head, pronotum, and base of elytra thinly pale yellowish- or hoary-gray. Eye posteriorly, front laterally, very narrowly margined with yellowish-ochraceous. Pronotum with five, large, shining glabrous maculae in an undulating line across middle, the lateral ones smaller. Scutellum hoary- or yellowish-gray. Elytra behind basal quarter minutely irrorate and each elytron with fifteen to twenty larger, round maculae, white; interspaces glabrous. Beneath reddish-brown, rather densely hoary-gray pubescent; metasternum laterally indistinctly white maculate. Legs piceous or reddish-brown, thinly clothed with grayish pubescence. Antennae with scape dark reddish-brown or piceous, rest paler; thinly pale gray pubescent, apices of each segment darker.



Head strongly convex above, finely, densely punctate; front broad, indistinctly convex between antennal tubercles, finely, densely punctate, with scattered, coarse punctures interspersed; genae longitudinally, finely rugose, very feebly pubescent; eye broadly oblong, about one-third taller than gena; antennal tubercle indistinctly elevated, placed low on the front. Pronotum transverse, apex wider than base; apical transverse sulcus shallow, basal one more distinct; disk with five, prominent, transverse tubercles, middle largest, lateral ones smallest, sublinear; lateral tubercles distinct, terminating in a long, robust process; sides before tubercle transversely rugose. Scutellum transverse, sides nearly straight, only slightly oblique; apex broadly rounded. Elytra with sides slightly arcuate, apices together rounded; base broadly and strongly gibbose each side behind scutellum, each gibbosity with six to eight large granules, more or less arranged in two rows, and with a few smaller ones around its margins, on disk granules decrease rapidly in size to middle, thence punctate to apex, apically the punctures become obsolete; humeri strongly rounded, with a large tubercle beneath the posterior angle, beset rather densely with small granules continued along side to middle. Procoxae as long as prosternum, feebly tuberculate before; profemora slightly narrowed on basal third, thence widened, sides nearly parallel to apex, not rugose, other femora robust, clavate. Fifth sternite twice length fourth, apex subtruncate, with an elongate, triangular impression which reaches to base. Antennae equal to, or indistinctly longer than, body, beneath fimbriate feebly on third and fourth segments; scape very slender, clavate apically, not rugose.

LENGTH 26-29 mm.; width 10-11.5 mm.

*Holotype*.—Female; Mana River, French Guiana, June 1917; [C.M.].

*Paratype*.—Female; Santarem, Brazil; July 1919; (S. M. Klages); [C.M.].

### **Oncideres irrorata Melzer**

PLATE XIII, FIGURE 3

*Oncideres irrorata* Melzer, Rev. Ent., IV, 1934, p. 94, pl. 2, f. 11.

*Oncideres gutturator* Bruch (non Fabricius), Notas Mus. La Plata, Zool., VI, (50), 1941, p. 366, pl. 5, f. 18.

In the pattern of the maculae on the elytra, as well as in maculation of pronotum, this species resembles *O. saga*. However, the elytra are glabrous between the maculae, which are more densely placed, more distinct, and of a purer white.

MALE. Elongate-ovate, robust, subcylindrical, elytra convex; black. Head consperse with minute, white or fulvous; front rather sparsely covered with white or fulvous pubescence, more condensed laterally; eye margined posteriorly by denser pubescence. Pronotum rather sparsely white or fulvous (singly or admixed) pubescent, with a rather broad band of condensed pubescence before the glabrous median carina. Scutellum white or fulvous. Elytra at extreme base densely, over rest of disk sparsely and finely, fulvous or white pubescent, disk densely, minutely,

white consperse, maculae mostly rounded, sometimes somewhat confluent to form rosettes similar to those of *saga*. Beneath dark brown or piceous, rather densely clothed with fulvous-gray or hoary-gray pubescence; sides of prosternum to metasternal apex laterally distinctly vittate with white; abdominal sternites apically margined with yellowish or fulvous. Legs piceous, grayish pubescent, above gray-yellowish or fuscous. Antennae dark reddish-brown, paler distally, grayish-brown pubescent; scape piceous, glabrous.

Head finely alutaceous, with a few scattered, shallow, rather large punctures, front rather broadly concave between antennal tubercles, more or less rugosely, or coarsely, punctate; genae transverse, rather scabrose; eye with lower lobe oblong, twice height of gena; antennal tubercles feebly prominent, produced at apex into a short, robust, vertical, acute horn. Pronotum transverse, widest at apex, constricted behind lateral tubercles, which are large, broad, terminating in a short, blunt process; disk at middle with a transverse, feebly sinuate carina, basal and apical transverse sulci shallow; sides before and behind tubercle transversely rugose; base of disk and of lateral tubercles with a few punctate-granules. Scutellum transverse, sides nearly straight, oblique, apex broadly rounded. Elytra with sides almost straight, attenuate to apices, which are together rounded; disk basally feebly gibbous, with about six or eight large granules on gibbosity, a few small ones scattered around them, attaining basal quarter or third, rest impunctate; humeri oblique, entirely occupied by a large, glabrous, prominent tubercle. Procoxae with a large, broad, prominent tubercle internally before; profemora robust, parallel-sided, rest of femora robust, clavate. Fifth sternite slightly longer than fourth, apex emarginate. Antennae one-third to one-half longer than body; scape robust, strongly clavate apically, basal two-thirds internally with about five to seven strong rugosities, finely, densely punctate all over, with a few, large, rather shallow punctures interspersed; fimbriate on third, fourth, and fifth segments beneath.

**FEMALE.** More robust; front broader and only feebly concave between antennal tubercles; genae vertical; eye about one and one-fourth times as high as gena; antennal tubercles very feeble, unarmed; pronotum more strongly transverse, lateral tubercles less elevated; elytra more robust, slightly widened beyond middle; procoxae not tumid, only feebly tubercled; profemora slightly narrowed at base; fifth sternite one-half longer than fourth, emarginate at apex, basally very deeply, triangularly impressed; antennae as long, or slightly longer, than body, scape slender, clavate on apical half, nearly attaining middle of pronotum, finely, densely punctate and with a few scattered, large, shallow punctures, with three or four internal and external, feeble grooves; rather heavily fimbriate on third, fourth, and fifth segments.

LENGTH 19-25 mm.; width 7-10 mm.

*Type locality.*—Itatiaya and Petropolis, Rio de Janeiro, Brazil.

*Type.*—Melzer collection.

*Distribution.*—Southeastern Brazil.

BRAZIL: 2 ♂; Garanhuns, Pernambuco, 8600 m.; (A. Maller); [U.S.N.M.]. ♂, ♀; Ceará; (F. D. da Rocha); [U.S.N.M.]. ♂, ♀; Pedro Alagoas, Aug. 1939; (A. Maller); [L. Lacey]. ♂, 2 ♀; Garanhuns, Pernambuco, 8600 m., April-May, 1937; (A. Maller); [L. Lacey].

NO LOCALITY DATA: 2 ♀; [A.N.S.P.].

**Oncideres phaetusa** Dillon and Dillon, spec. nov.

## PLATE XIII, FIGURE 5

Differs from *O. maxima* in the elytra not being irrorate with white and in the smaller size; from *O. gibbosa* it is distinct in having the elytra light gray pubescent, except on basal third, where the pubescence is brown, and also in lacking the glabrous points.

**FEMALE.** Elongate-oblong, cylindrical, robust; head and pronotum piceous, elytra reddish-brown. Head above dark brown pubescent, vertex dull fulvous; front thinly yellowish-gray pubescent, with a rather broad, indistinct vitta medially of ochraceous. Pronotum dark brown, varied with ochraceous and pale yellow pubescence, paler pubescence denser medially, forming a broad, rather indistinct vitta, with a small, glabrous macula just behind middle. Scutellum thinly brown, yellow, and fulvous pubescent. Elytra on basal quarter dark brownish-ochraceous pubescent, remainder of surface with pale yellowish-gray pubescence and with scattered, small, ochraceous maculae; at apical third a narrow, oblique fascia of brownish-ochraceous which is widest laterally. Beneath reddish-brown, densely clothed with yellowish-gray pubescence; mesosternal side-pieces and base of metepisternum dark brown pubescent, varied with ochraceous; metasternum variegated laterally with ochraceous pubescence and the same pubescence forming an indistinct vitta either side of abdomen. Legs reddish-brown, thinly clothed with brown, ochraceous, and yellowish-gray pubescence. Antennae with scape piceous, remaining segments paler; scape dark brown pubescent, third segment entirely thinly gray pubescent and extreme apex dark brown, remaining segments (from sixth missing) gray pubescent on basal half and dark brown on apical half.

Head having front subquadrate, sides parallel to lower margin of eyes, thence feebly narrowed, surface rugose; genae feebly transverse, surface rugose; eye with lower lobe oblong, nearly twice genal height; antennal tubercles moderately prominent, not produced at apex. Pronotum transverse, apex distinctly wider than base; sides nearly parallel to behind middle, then distinctly narrowed, armed with a short robust tooth behind middle; apical sulcus deeply curved at middle, basal sulcus straight, oblique laterally; disk medially just behind middle with a rounded, feebly elevated tubercle, nearer apex two small tubercles, more or less transverse, toward either side; at base and base of later tubercles with a few setigerous punctate-granules. Scutellum transverse; sides straight, oblique; apex very broadly rounded. Elytra feebly widened behind middle; apices together rounded; each elytron at base with a strongly elevated gibbosity which has large, well-spaced granules (the largest ones nearest suture), remainder of base with a few, scattered very small granules; humeri prominent, covered with granules of a much smaller size than those on gibbosities, just beneath the angle of humerus is a large, rounded tubercle, remaining surface of elytra with small punctures which gradually become finer at apex. Prosternum simple, rather broad, gradually widened posteriorly; mesosternal process moderately narrow, elongate, sides feebly emarginate, apex acutely emarginate medially; fifth sternite about half again as long as fourth, as apex feebly emarginate, surface feebly triangularly impressed medially. Procoxae globose, unarmed; femora robust, strongly clavate apically, profemora feebly rugose on ventral side basally. Antennae (missing from sixth and fourth segments) with sixth segment nearly

attaining middle of elytra; scape robust, gradually clavate from basal quarter, reaching nearly to apical quarter of pronotum; third segment arcuate, very slightly longer than scape, remaining segments gradually shorter; sparsely fimbriate on first three segments.

LENGTH 15 mm.; width 6.5 mm.

*Holotype*.—Female, Hyutanahan, Rio Purus, Brazil; (S. M. Klages); [C.M.].

### ***Oncideres gibbosa* Thomson**

PLATE XIII, FIGURE 4

*Oncideres gibbosa* Chevrolat, mss.

*Oncideres gibbosus* Thomson, Physis, II, 1868, p. 82.

Nearest to *O. maxima* in form and maculation, although shorter in body length. Furthermore, it is more finely and densely granulate, granulation more or less confined to gibbosities and humeri, and apical two-thirds of elytra have larger, rather indistinct, fulvous maculae in place of the white ones.

MALE. Elongate-ovate, robust, subcylindrical, elytra convex; dark-reddish brown to piceous, elytra paler; covered with rather shaggy, long, hoary-gray pubescence. Head with hoary-gray and ochraceous variegated pubescence; front sparsely ochraceous, vittae narrowly laterally, eye posteriorly margined, with yellowish-ochraceous. Pronotum medially with an indistinct, sinuate band of pale orange-gray near the five glabrous maculae, which are arranged in an undulating line. Elytra at extreme base hoary, followed by a band of dark gray-brown pubescence on basal quarter, thence with whitish pubescence much interrupted by small, rounded and larger, irregular, glabrous maculae and areas, each clytron with from twenty-five to thirty small, rounded, ochraceous maculae interspersed. Body beneath reddish-brown, unevenly, densely, hoary-gray pubescent; metepisterna touched with ochraceous. Legs dark reddish-brown, hoary-gray pubescent; femora above tinged with grayish-brown. Antennae reddish-brown, proximal three segments piceous; clothed with short, grayish pubescence, apical half of each segment brownish.

Head very finely, densely punctate; front moderately concave between antennal tubercles, finely, densely punctate, with coarse, scattered punctures interspersed; genae nearly glabrous, minutely alutaceous, with a few, scattered, coarse punctures; eye with lower lobe oblong, about two and one-fourth times the height of gena; antennal tubercles feebly elevated, only very slightly produced apically. Pronotum transverse, apex wider than base, constricted behind lateral tubercles, which are feeble, terminating in a short, robust process; apical transverse sulcus very shallow and feeble, basal one more distinct; disk with median tubercle large, round, rest smaller, transverse, submedian ones basal, lateral ones linear; sides before lateral tubercles transversely rugose. Scutellum transverse, sides nearly straight, apex rounded. Elytra with sides nearly parallel to apical quarter, apices together rounded; disk basally strongly gibbose behind scutellum, extreme base very broadly

smooth, gibbous portion with two or three irregular rows of large granules, rest of basal quarter with sparse, small granules, thence sparsely punctate, beyond middle punctures sparser and more obsolete to apex; humeri rounded, rather closely set with granules, a little smaller than those on gibbosities, becoming smaller as they extend along sides to basal quarter. Procoxae with a distinct, conical, curved tubercle before, directed externally, located near base of femora; profemora narrowest at base, then expanded, nearly parallel-sided to apex, which is the widest point, basal half of posterior face coarsely, anterior face finely, transversely rugose, other femora abruptly clavate. Fifth sternite slightly longer than fourth, apex emarginate. Antennae one and one-third length of body; sparsely fimbriate beneath, especially distinct on third and fourth segments; scape rather robust, clavate, base transversely grooved, less distinctly so externally; third segment not especially robust nor swollen.

**FEMALE.** More robust; front very feebly concave between antennal tubercles which are not produced; eye only one and one-half height of gena; pronotum more strongly transverse; elytra broader; procoxae tumid before but only feebly tubercled; profemora similar to other femora but more robust, not rugose, profemora shorter than tibiae or tarsi, which are subequal, on other legs, tarsi are slightly longer than the equal tibiae and femora; fifth sternite twice length of fourth, more or less emarginate at apex, triangularly impressed at base.

LENGTH 16.5-25 mm.; width 5.5-9.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Brazil.

BRAZIL: ♀; no locality data; [A.N.S.P.]. ♂; Rio de Janeiro; [C.M.].

### **Oncideres crassicornis** Bates

PLATE XIII, FIGURE 6

*Oncideres crassicornis* Bates, Ann. Nat. Hist., (3), XVI, 1865, p. 177.

Somewhat similar to *O. ulcerosa* in form of body and of antennae in male. Elytra on apical half are indistinctly blotched with white, not white-maculate, and with a number of small, rounded, glabrous spots; the whole basal quarter is granulate, not just the gibbosities, and there are several brownish forked lines near apex.

**MALE.** Elongate-ovate, somewhat robust, subcylindrical, elytra convex; head and pronotum dark reddish-brown, elytra lighter; entirely covered with dark fulvous pubescence. Head with eye narrowly margined with paler. Elytra basally with a few dark brown granules; on apical two-thirds with more or less glabrous, rounded, small maculae, and usually suffused with ashy from middle to apex, more conspicuously so medially. Beneath reddish-brown, rather densely clothed with fulvous-gray pubescence, laterally from prothorax to metasternum more or less fulvous or brownish-fulvous. Legs reddish-brown, thinly fulvous-gray pubescent. Antennae with proximal segments dark reddish-brown or piceous, proximal segments paler; rather sparsely tawny-gray pubescent.

Head above rather finely, densely punctate; front rather deeply concave between antennal tubercles, very finely, densely punctate, with coarse, deep punctures scattered over surface; eye oblong-ovate, one and one-half times genal height; genae rugose, glabrous; antennal tubercles rather feebly elevated, with short horns apically, which are obtuse, subtruncate or feebly emarginate, or nearly bifurcate, at apex. Pronotum strongly transverse, apex wider than base; lateral tubercles feeble, ending in a very short, blunt process; disk without a glabrous carina or tubercles, rather feebly transversely rugose in varicid areas; base of lateral tubercles above with a few punctate granules. Scutellum transverse, sides nearly straight, oblique; apex rounded. Elytra with sides tapering, nearly straight to apical quarter thence rounded to apices, which are together arcuate; base somewhat gibbose, extreme base smooth, with four to six larger granules on gibbosities, a few smaller ones on rest of basal quarter, to middle with very sparse, evanescent granules, thence to apex sparsely punctate; humeri rounded, surrounded by small, sparse granules, a single large one at posterior angle. Procoxae tumid, with a feeble, obtuse tubercle; femora abruptly clavate from middle, profemora rather feebly, transversely rugose above and below. Fifth sternite one and one-fourth times length of fourth, feebly emarginate. Antennae one and one-third times length of body; scape short, very thickened, with a single, oblique, deep groove internally and externally; third segment slightly elongate, strongly swollen, especially basally.

**FEMALE.** More robust in form; front broader and only slightly concave between antennal tubercles, which are feeble and unarmed; elytra less tapering; procoxae unarmed; profemora not rugose, moderately clavate; fifth sternite one and one-third times length of fourth, with a triangular impression at middle, apex feebly emarginate; antennae as long as body, scape short, less robust than male but more so than females of other species; third more robust than following but not greatly swollen as in male.

LENGTH 17.5-23 mm.; width 6.3-9.5 mm.

*Type locality.*—Ega and branches of Tapajos.

*Distribution.*—Amazon Valley of Brazil.

**BRAZIL:** ♂, 7 ♀; Santarem, June, 1919; (S. M. Klages); [C.M.]. 2 ♀; Tefité, Nov., 1928 and March, 1925; [A.M.N.H.]. ♀; Amazon; [C.A.S.].

## **Oncideres repandator Fabricius**

PLATE XIII, FIGURE 7

*Lamia repandator* Fabricius, Ent. Syst., 1, 2, p. 277; Syst. Eleuth., II, 1801, p. 294.

*Oncideres repandator* Fabricius. Lacordaire, Gen. Col., IX, 1872, p. 679.

Differs from *O. crassicornis* as follows: elytra more strongly gibbose, granules larger and more dense, and maculation different; pronotum distinctly rugose, the transverse sulci less distinct; and metasternum white, not maculate with fulvous.

**MALE.** Elongate-ovate, somewhat robust, subcylindrical, elytra convex; fuscous, elytra at base either fuscous or dark reddish-brown, paler apically. Head,

pronotum, and scutellum, and elytra at extreme base, covered with yellow-gray pubescence; eye posteriorly and front laterally, narrowly margined with yellowish. Elytra to basal third brown pubescent, thence to middle yellowish-brown; behind middle a rather wide white band, deeply sinuated posteriorly by a narrow subglabrous band, thence white to apex, entire white portion fairly densely sprinkled with small, rounded, yellowish-brown maculae, each of which has a glabrous puncture at its anterior end; basal part with black, shining granules. Beneath reddish-brown, covered with whitish pubescence, concentrated laterally on metasternum to form a rather vague macula. Legs reddish-brown; beneath gray, above yellowish-gray, pubescent. Antennae with scape piceous or dark reddish-brown, rest of segments paler; rather thinly clothed with yellowish-gray pubescence.

Head with front between antennal tubercles strongly concave, finely, densely punctate, with very coarse, deep punctures interspersed; genae seabrose; eye with lower lobe oblong, one and one-half times height of gena; antennal tubercles prominent, prolonged apically into a very short, vertical horn, its apex deeply emarginate. Pronotum transverse, apex slightly wider than base; basal and apical transverse sulci broad but deep; disk entirely transversely rugose between the sulci; lateral tubercles feeble, with its apical process very short, base above with a few punctate-granules. Scutellum transverse; sides nearly straight, oblique; apex broadly rounded. Elytra with sides almost straight, tapering to apices, which are together rounded; extreme base smooth, disk gibbose behind scutellum, each gibbosity with six to eight large granules, area surrounding gibbosities with a few, much smaller granules, disappearing at basal third, thence to apex with rather deep, scattered punctures; humeri rounded, with a tubercle at posterior angle, surrounded by scattered, smaller granules. Procoxae tumid, with a broad, obtuse, prominent tubercle before; profemora with sides parallel to middle then widened to apex, on posterior face basal two-thirds transversely rugose, entirely so on anterior face, other femora clavate. Fifth sternite a little longer than fourth, deeply emarginate at apex. Antennae one-half longer than body, very sparsely fimbriate beneath on third and fourth segments; scape robust, short, clavate from base, deeply grooved each side near base; third segment very tumid, at base as wide as scape, tapering apically.

**FEMALE.** A little more robust, front very feebly concave between antennal tubercles; antennal tubercles not armed; pronotal disk transversely rugose only at middle and more feebly so than in male; elytra a little more robust; procoxae globose, only feebly tuberculate before; profemora clavate, not rugose; fifth sternite nearly twice length of fourth, apex emarginate, with a triangular impression reaching almost from apex to base; antennae as long as, or slightly longer than, body, scape more slender, feebly grooved, third segment elongate but not enlarged.

LENGTH 18-25 mm.; width 7-10 mm.

*Type locality.*—Cayenne.

*Distribution.*—French Guiana to southeastern Brazil.

" GUIANA " : 2 ♀; no locality data; [M.C.Z.].

FRENCH GUIANA : ♂, 2 ♀; Cayenne; [M.C.Z.].

BRAZIL : ♀; no locality data; [Minn. U.]. ♀; Rio de Janeiro; [M.C.Z.]. ♀; Amazon; [C.A.S.]. ♀; north side of Amazon near Alenquer; [A.M.N.H.].

**Oncideres miliaris** Voet

*Cerambyx miliaris* Voet, Cat. Col., II, 1778, p. 11, pl. 9, f. 32; ed. Panzer, III, 1794, p. 26, pl. 9, f. 32.

*Oncideres miliaris* Voet. Lacordaire, Gen. Col., IX, 1872, p. 678.

"Head broader than in others of genus. Head gray as is pronotum, latter with lateral tubercles. Scutellum very small; elytra rounded at apices, brown at base and punctate there, middle is gray, where it is beset with strong, whitish points. Legs shining, antennae as long as body."

The above is Voet's original description, none of this species having been seen by the authors.

From Voet's illustration, this species appears to be near *O. crassicornis*, but differs from it in having five denuded maculae on the pronotum.

**Oncideres cephalotes** Bates

PLATE XIII, FIGURE 8

*Oncideres cephalotes* Bates, Ann. Nat. Hist., (3), XVI, 1865, p. 178.

*Oncideres dalmanii* Thomson, Physis, II, 1868, p. 76.

The rather dense, elongate, denuded maculae of the elytra, commencing at basal third, the nearly uniform brownish-gray of the pubescence on the body above, and its robust form serve to distinguish this species.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra moderately convex. Head and pronotum fuscous, former covered with dark fulvous-gray pubescence, front somewhat darker, often glabrous; posterior margin of eye outlined with lighter fulvons, anterior margin very indistinctly so. Pronotum lighter fulvous-gray, more fulvous apically; apex fringed with yellowish-gray; an indistinct, narrow, paler, transverse line often present medially; at middle a transverse carina, often broken into five spots, glabrous, shining. Scutellum fulvous-gray. Elytra fulvous-gray, usually darker on basal third, varying in exact shade; tubercles at base glabrous, thence with small, moderately spaced, oval, bare spots to apex, at apical third these are dense, confluent, forming a narrow irregular band, apically with a glabrous forked line on disk, and another, often forked, laterally, connected near apex. Beneath reddish-brown, white to grayish-white pubescent; sternites on each side with a pair of small, confluent, glabrous maculae. Antennae dark reddish-brown basally, paler distally, rather thinly clothed with grayish-pubescence, apical half of each segment with darker pubescence. Legs dark reddish-brown; femora clothed with grayish-white pubescence below, above tinged with brownish, tibiae entirely brown pubescent.

Head minutely, densely punctate above; front broadly concave between antennal tubercles, rugosely punctate; eye with lower lobe elongate, oblong, about two and one-half times as high as gena; antennal tubercles very feeble. Pronotum transverse, base and apex subequal in width, apex slightly wider; sides very feebly



arcuate, constricted behind lateral tubercles; basal and apical sulci shallow, broad; lateral tubercles small, acute; disk medially with a sinuate, transverse carina, which often is broken into five parts, before middle laterally with a few transverse carinae, a few punctate granules at base of lateral tubercles. Scutellum transverse, sides subarcuate, oblique, apex rather narrowly rounded; a very narrow glabrous stripe at middle. Elytra half again as wide at base as pronotum, sides gradually narrowed to apices which are together rounded; extreme base smooth, thence to basal quarter with small, oval granules, moderately placed, all elevated at their posterior ends, these are succeeded by small glabrous spots, somewhat raised to behind middle; humeri rounded, with smaller, more numerous granules than rest of base, just beneath its angle a large, distinct tubercle; at base towards suture broadly gibbose. Procoxae moderately, obtusely tuberculate internally before; profemora nearly parallel-sided, beneath transversely rugose for two-thirds their length; other femora robust, feebly clavate; fifth sternite subtruncate or feebly emarginate. Antennae two-thirds longer than body; scape gradually clavate, obliquely rugose internally.

**FEMALE.** Head very flat and broad; antennal scape less rugose and more slender; pronotum much more transverse, lateral tubercles more pronounced, with tip more produced; elytra more robust, less tapering, humeral tubercle larger; procoxae unarmed and less tumid; profemora feebly clavate, not parallel-sided, with only a few feeble rugosities; fifth sternite feebly emarginate, with a broad, triangular impression medially.

LENGTH 19-28.5 mm.; width 9.5-11.5 mm.

*Type locality.*—Ega.

*Distribution.*—British Guiana and northern Brazil.

**BRAZIL:** 5 ♂, 10 ♀; Santarem, April-July, 1919; (S. M. Klages); [C.M.]. ♂; Santarem; [C.M.].

**BRITISH GUIANA:** ♂; Rupiumuni Cattle Trail, between Essequibo and Demerara Rivers, April-May, 1920; (G. B. Fox); [C.M.].

*Remarks.*—There is nothing in Thomson's description of *dalmanii* to distinguish it from this species.

### ***Oncideres chevrolatii* Thomson**

PLATE XIII, FIGURE 9

*Oncideres bifasciata* Chevrolat, mss.

*Oncideres diana* Bates (non Olivier), Ann. Nat. Hist., (3), xvi, 1865, p. 176.

*Oncideres chevrolatii* Thomson, Physis, II, 1868, p. 77.

*Oncideres fabricii* Thomson, Physis, II, 1868, p. 78.

Closely related to *O. cephalotes* but elytral base is much more densely granulate, the elytral glabrous maculae are sparse and not clongate; and the pronotum always has a distinct transverse carina.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra convex; dark reddish-brown to black. Head above rather thinly covered with either gray or deep fulvous

pubescence or with a mixture of both; front pale to deep fulvous pubescent; eye margined anteriorly and posteriorly with pale to deep fulvous. Pronotum covered with gray or fulvous pubescence, or a mixture of both, apical margin light fulvous or pale gray. Scutellum gray or pale fulvous pubescent. Elytra rather densely covered with silvery or greenish-gray pubescence, sometimes light fulvous; basal quarter with dense, brownish or black granules, the middle half with rather sparse, more or less elongate, small, glabrous maculae, at apical third rather concentrated to form a narrow, irregular band; on apical quarter each with a pair of forked lines radiating from apex and with a few glabrous maculae. Beneath reddish-brown to dark brown, rather densely clothed with whitish-gray or tawny-gray pubescence, more densely, irregularly concentrated at sides. Legs dark reddish-brown or piceous, rather densely covered with either gray or tawny-gray pubescence. Antennae with proximal two segments piceous or black, distal segments paler; rather thinly covered with gray or tawny-gray pubescence, apical third of each segment darker.

Head above finely, densely punctate; front moderately concave between antennal tubercles, very densely punctate, with many coarser, rather deep punctures intermingled; genae nearly glabrous, very sparsely pubescent, rugose; eye oblong, about twice as tall as gena; antennal tubercles moderately elevated, unarmed. Pronotum transverse, only indistinctly wider at apex than at base; disk with a median transverse glabrous line, only slightly elevated; lateral tubercles variable, sometimes feebly elevated, sometimes distinct and subacute; base of disk and of lateral tubercles with a few, scattered punctate-granules. Scutellum transverse, sides feebly arcuate, apex rounded. Elytra with sides tapering, nearly straight to apical quarter, then rounded to apices, which are together rounded; base somewhat gibbose, extreme base smooth, smooth area much more extensive between humeri and gibbosities, and gibbosities and scutellum, thence closely set with many, moderate-size granules ending abruptly behind, rest of disk with rather feeble punctures placed in the glabrous maculae; humeri rounded, with a somewhat larger granule beneath the posterior angle. Procoxae tumid, with a feeble, obtuse tubercle before; femora clavate, profemora nearly parallel to apical third, then feebly swollen, transversely rugose on basal two-thirds above and below. Fifth sternite about one and one-fourth times length of fourth, emarginate at apex, not impressed. Antennae one and one-half times length of body; scape rather robust, clavate, transversely rugose above and below basally; fringed on third and fourth beneath.

**FEMALE.** More robust, front broader, only feebly concave between antennal tubercles; pronotum more strongly transverse; elytra less tapering posteriorly; procoxae feebly tumid, unarmed; femora all feebly clavate; fifth sternite one and one-half times length of fourth, subtruncate apically, with a rather broad, feeble triangular impression at middle; antennae just a little longer than body; scape slender, very slightly rugose basally on internal face.

LENGTH 16.5-25 mm.; width 7-10.5 mm.

*Type locality.*—Pará.

*Distribution.*—Brazil.

**BRAZIL:** ♂, 3 ♀; Santarem, July, 1919; (S. M. Klages); [C.M.]. ♂; Tefé, Oct., 1924; [A.M.N.H.]. ♂; Chapada, March; [C.M.]. ♂; Conduru, Esperito Santo, Nov., 1939; (A. Maller); [L. Lacey]. 2 ♀; Amazon; [C.A.S.].

*Remarks.*—None of the distinguishing characters (short form, head more feebly punctate, basal tubercles of elytra more numerous and very seriate) as given by Thomson for *fabricii* are sufficiently constant to warrant its recognition. In fact, according to Thomson's own measurements, the difference in form amounts to only two-tenths of one percent!

Bates' *diana* is quite a different form from that described by Olivier, his description agreeing perfectly with the present species. Olivier's, on the other hand, must be placed close to *O. intermedius*.

### ***Oncideres multicincta* Dillon and Dillon, spec. nov.**

PLATE XIII, FIGURE 10

*Multicincta* is closely related to *chevrolatii* but is smaller in general size, the elytra at base are densely granulate but much more finely so, and at apical third is a sinuate white fascia, followed by a glabrous band which is irrorate with fulvous.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; head and pronotum fuscous, elytra dark brown to fuscous. Head covered with grayish-brown pubescence above; front fulvous-brown; eyes indistinctly and narrowly margined before and behind with paler pubescence. Pronotum covered with grayish-brown and grayish-fulvous pubescence intermixed; a narrow, transverse, glabrous line at middle, before which is an indistinct line of grayish-fulvous. Scutellum grayish-fulvous. Elytra entirely covered with grayish-fulvous, basal third with many shining, brownish granules, middle third laterally whitish, on disk with indistinct maculae of silvery-white pubescence and a few very fine, glabrous spots, limited behind with a narrow, sinuous band of silvery-white, which in turn is bordered by a broader glabrous band, this band moderately, minutely irrorate; rest of apex with vague maculae of silvery-white, several broken, fine, glabrous lines running towards tip. Beneath dark reddish-brown, covered densely at sides with hoary and fulvous pubescence intermixed, largely hoary medially. Legs dark reddish-brown, gray beneath, grayish-fulvous above. Antennae with scape dark reddish-brown, rest paler; entirely covered with grayish-fulvous pubescence.

Head having front deeply concave between antennal tubercles, rather finely, densely punctate, with coarse, deep punctures interspersed, feebly rugose on scattered areas; genae feebly covered with pubescence; antennal tubercles moderately prominent, feebly produced at apex into a blunt process; eye with lower lobe oblong-ovate, one and one-half times as high as gena. Pronotum transverse, apex wider than base, constricted somewhat behind lateral tubercles; these are very feebly elevated, quite indistinct, ending in a minute, broad, glabrous tooth; disk medially with a fine, sinuate, transverse carina; a few punctate-granules on base of lateral tubercles. Scutellum transverse, sides nearly straight, slightly oblique, apex subtruncate. Elytra with sides nearly straight, narrowing to apices, which are together rounded; extreme base smooth, rest of basal third with many fine granules, those nearest scutellum and those on and under humeri larger, thence with fine and few

punctures to apical third, where there is a transverse band of dense punctures, following this the punctures are sparser to apex; humeri rounded, with several, unequal sized tubercles at posterior angle. Procoxae globose, before armed with a very feeble, obtuse tubercle; profemora feebly clavate, transversely rugose on basal half beneath, above only on extreme base; rest of femora simply clavate. Fifth sternite one and one-third times length of fourth, broadly emarginate at apex, without distinct impression. Antennae one and one-half times body length; scape robust, clavate, transversely rugose on basal third.

LENGTH 16.5-17 mm.; width 6.7-7.2 mm.

*Holotype*.—Male; Buena Vista, E. Bolivia; (J. Steinbach); [C.M.].

*Paratype*.—Male; Buena Vista, Prov. del Sara; (J. Steinbach); [authors' coll.].

### ***Oncideres albomaculata* Dillon and Dillon, spec. nov.**

PLATE XIII, FIGURE 11

Related to *O. chevrolatii* but the base of elytra is more finely and less densely granulate. Moreover, the coloration is entirely distinct. The elytra have the glabrous maculae minute, widely separated, the base is fulvous, and disk posteriorly from basal third has indistinct white maculae. The general size also is smaller, ranging from 15 to 18 mm., whereas the other species ranges from 16.5 to 25 mm.

**FEMALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex. Black, elytra dark brown to piceous. Head ferruginous pubescent, eye margined with a more concentrated band of the same pubescence. Pronotum gray, varied slightly with ferruginous; with a glabrous line medially. Scutellum ferruginous, with some gray pubescence intermingled. Elytra at extreme base gray, thence to basal quarter with ferruginous pubescence that is paler than that on head; balance pale fulvous-gray pubescent, with rather indistinct, silvery-white, moderate-sized maculae, often coalescent, numbering between twenty and twenty-five on each elytron; granules on base glabrous, and with sparse denuded punctures to apex, a pair of fine, denuded, forked lines on each, converging apically; at apical third sometimes a glabrous, indistinct band is present. Beneath dark brown, covered with a silvery-gray pubescence; metasternum with an oblique, brownish macula on each side; sternites each side with a broad, indefinite vitta of brownish, not attaining fifth sternite. Antennae with proximal segments black, paler distally; first three segments gray pubescent, from fourth darker and indistinctly annulate on base of each with paler pubescence. Legs dark brown; femora beneath silvery-gray pubescent, above brownish; tarsi brownish.

Head finely, densely punctate; front flat or very feebly concave between antennal tubercles, rather transversely rugose, and with sparse, coarse punctures; eye with lower lobe oblong, twice as high as gena; genal stripe partially pubescent, scabrose. Pronotum transverse, widest at apex, constricted behind lateral tubercles,

which are feeble and only indistinctly prolonged at apex; at middle a transverse, straight carina, sculpturing concealed. Scutellum transverse; sides nearly straight, oblique; apex rounded. Elytra with sides somewhat arcuate to apices, which are together rounded; extreme base smooth, then to basal quarter rather finely granulate, granules moderately spaced on disk, denser on humeri, followed to apex by very sparse punctures, becoming even sparser apically; humeri rounded, beneath posterior angle with a large, rounded, distinct tubercle. Procoxae smaller, with a very obtuse tubercle before; femora clavate, profemora not rugose (or rugosities, if present, concealed). Fifth sternite slightly longer than fourth, emarginate at apex; medially with a broad, triangular impression. Antennae subequal to body in length, very briefly fimbriate to fifth; scape gradually clavate, slightly rugose internally.

LENGTH 15-18 mm.; width 5.5-7 mm.

*Holotype*.—Female; Santarem, Brazil, May, 1919; (S. M. Klages); [C.M.].

*Paratypes*.—2 females; same data as holotype; [C.M.].

### ***Oncideres fulvostillata* Bates**

PLATE XIII, FIGURE 12

*Oncideres fulvostillata* Bates, Trans. Ent. Soc. Lond, 1872, p. 202.

Resembles *O. digna* in form and general color. It differs greatly from it, however, in having small, glabrous maculae on elytra behind basal third, where there it is thinly gray pubescent, with rufous-ochraceous, moderate-sized spots.

**MALE.** Elongate-ovate, subcylindrical, elytra convex; piceous to black, covered with grayish-brown pubescence, elytra from basal third thinly gray. Head with eyes outlined behind with bright fulvous, front at sides with a narrow vitta of dull fulvous. Prothorax with five shining, glabrous maculae in a transverse row at middle; lateral tubercles glabrous. Elytra with black, shining tubercles on basal third, followed to apex by small, rounded, glabrous spots; on apical two-thirds each with from twenty-five to thirty small, rounded, bright orange-red maculae. Beneath dark brown to fuscous, covered with rather dense, brownish-gray pubescence. Antennae piceous or black, from third distally fuscous or dark brown. Legs piceous or black, covered with brownish-gray; femora above ferruginous.

Head very finely, densely punctate; front finely, densely punctate, with a few, large, deep punctures interspersed, concave between antennal tubercles; eyes oblong, nearly four times length of genae; antennal tubercles feebly elevated, with short, robust, blunt horns internally, directed upwards. Pronotum transverse, apex slightly wider than base, sides feebly curved; lateral tubercles feeble; disk with three shining, maculiform tubercles, the lateral maculae consist of fine, transverse rugosities, finely, densely punctate with a few coarse, deep punctures on base of disk and of lateral tubercles; sides with a number of transverse rugosities before. Scutellum transverse, sides nearly straight, feebly oblique; apex broadly rounded. Elytra gradually tapering to apices, which are together rounded; basal third with few

large tubercles, on each gibbose portion from four to six larger ones, gradually evanescent to middle, succeeded by glabrous spots, each of which have a small puncture; humeri rounded, with a large, glossy black tubercle at posterior angle. Procoxae globose, with a very obtuse tubercle internally before; femora gradually clavate, profemora robust, nearly parallel-sided, rugose transversely above and below. Fifth sternite slightly longer than fourth, apex feebly emarginate, a slight, narrow, triangular impression at middle. Antennae about twice length of body; scape more slender than usual, feebly clavate apically, transversely rugose nearly to apex on all sides; fringed beneath to third, very indistinctly so on following segments.

**FEMALE.** Front broadly concave between antennal tubercles, which are unarmed, very feeble; elytra more robust than male; antennae slightly longer than body; procoxae with a very feeble tubercle before; profemora slender, gradually clavate, not rugose; fifth sternite only slightly longer than fourth, feebly emarginate at apex; at middle, a deep triangular impression, not attaining apical margin.

LENGTH 21-24 mm.; width 9-10 mm.

*Type locality.*—Chontales, Nicaragua.

*Distribution.*—Nicaragua and Costa Rica.

**COSTA RICA:** 4 ♀; San Isidro del General, Dec. 1937; on *Persia gratissima*; (Y. Retana); [U.S.N.M.]. ♂; no locality data, Dec. 1, 1937; on *Persia aguncate*; (F. Nevermann); [U.S.N.M.].

### ***Oncideres apicalis* Dillon and Dillon, spec. nov.**

PLATE XIII, FIGURE 13

In form and coloration, *apicalis* is similar to *O. fulvostillata*. From this species, it may be distinguished by the smaller size of the elytral glabrous maculae; the elytra on apical half rather densely white pubescent, and with irregular, sometimes more or less coalescent, orange-fulvous maculae; body beneath is white on sterna laterally, rather than brown as in preceding species; and the large tubercle on humerus is placed more anteriorly.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; black. Head covered with dull reddish-fulvous pubescence; eye margined with similar but denser pubescence, more widely so behind. Pronotum with lighter pubescence, sometimes somewhat grayish basally, near middle with an indistinct, transverse, lighter band, five black, transverse maculae across center of disk, these sometimes more or less confluent. Scutellum and basal half of elytra with grayish brown, apical half of the latter densely white pubescent; basal half of elytra with few large granules, apical portion with about fifteen to twenty orange-fulvous maculae on each elytron and with glabrous punctures. Beneath dark brown, covered with pale brownish-gray pubescence, laterally with a broad, white vitta each side from prothorax to metacoxae; sternites sometimes with a whitish vitta at extreme lateral edge. Legs dark reddish-brown, beneath grayish pubescent, brownish-gray above. Antennae

with two proximal segments dark brown to piceous, rest paler; rather thinly clothed with brownish-gray pubescence.

Head above rather finely, densely punctate; front concave between antennal tubercles, finely, densely punctate, with coarse, sparse punctures interspersed, a few rugosities medially; genal stripe feebly covered with pubescence, rugosely punctate; eye with lower lobe oblong, about one and one-half times as high as gena; antennal tubercles prominent, not produced into a horn or process at apex. Pronotum transverse, apex wider than base, which is constricted behind lateral tubercles; these feebly elevated, broad, ending in a short, robust, blunt process; the glabrous discal maculae are shortly, transversely bi- or tri-carinate, base of disk and base of lateral tubercles with a few punctate-granules. Scutellum transverse; sides nearly straight, oblique, apex very feebly rounded. Elytra with sides nearly straight to apical quarter, then rounded to apex; extreme base smooth, thence with few, widely spaced granules gradually diminishing to middle, about six to eight on gibbose portion, numerous smaller ones on humeri, rest of disk with glabrous punctures; humeri rounded, with a single, large tubercle at posterior angle. Procoxae rather tumid, nearly unarmed before, usual tubercle very feeble, obtuse; femora clavate, profemora nearly parallel-sided, transversely rugose above and below. Fifth sternite one and one-half times as long as fourth, emarginate at apex, extremely feebly, triangularly impressed at middle. Antennae one and one-half times length of body, fimbriate on third and fourth; scape gradually clavate, transversely rugose nearly to apex, more distinctly so internally.

**FEMALE.** More robust, elytra more broadly rounded at apex; front broad and feebly concave between antennal tubercles; procoxae slightly tumid, unarmed; profemora clavate, not rugose; fifth sternite broadly and deeply, triangularly impressed at middle; antennae a little longer than body; scape more slender than in male, not rugose.

LENGTH 21-25 mm.; width 8-10 mm.

*Holotype*.—Male; Santarem, Brazil, July, 1919; (S. M. Klages); [C.M.].

*Allotype*.—Female; same data as holotype; [C.M.].

*Paratypes*.—3 females; topotypic, June, 1919; (S. M. Klages); [C.M.]. Female; Lower Amazon River, Brazil; [M.C.Z.]. 2 females; Amazon; [C.A.S.].

### *Oncideres gemmata* Dillon and Dillon, spec. nov.

PLATE XIII, FIGURE 14

Resembles the two preceding species in general form, but pronotum has a single transverse carina in place of the five glabrous maculae; clytra at basal quarter (instead of basal third) finely, densely granulate, apical three-quarters densely white pubescent, the glabrous maculae as in *O. apicalis*, apical three-quarters maculate with rufous-ochraceous; humerus at posterior angle without a larger tuber-

cle, behind angle a cluster of smaller ones; and body beneath vittate laterally with ochraceous.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; black. Head covered with fulvous-brown pubescence; eye narrowly margined behind and before with brighter fulvous; genae glabrous. Pronotum fulvous-brown intermixed with gray pubescence; at middle a glabrous, shining, transverse, black line, before which is a transverse, fulvous band. Scutellum brown, shining, nearly glabrous, covered with a very thin, brownish-gray pubescence. Elytra on basal fifth more or less fulvous, then silvery-white to apex; basal fifth with a moderate number of black, shining granules, remainder of disk with about twenty to thirty rufous-ochraceous, rounded maculae and with glabrous punctures; at apical third an indistinct band consisting of concentrated, glabrous punctures, behind this a more or less trifurcate, glabrous line, forks converging to apex. Beneath reddish-brown, covered with grayish pubescence, laterally with a broad, irregular, ochraceous band from prothorax to fourth sternite; sternites apically margined indistinctly with ferruginous. Legs dark brown or fuscous, gray pubescent beneath, varied with ferruginous above. Antennae fuscous, paler distally; scape thinly covered with fine, gray pubescence, rest with grayish-brown.

Head with front concave between antennal tubercles, finely, densely punctate, with coarse, sparse punctures intermingled, along middle vertically a band of granules; genae glabrous, scabrose; eye with lower lobe oblong, one and one-half times as high as gena; antennal tubercles moderate, unarmed apically. Pronotum transverse, apex slightly wider than base, which is constricted behind lateral tubercles; these feebly elevated, terminating in a very short, blunt spine; disk medially with two or three transverse carinae, only one of which is entire, rest shortened or broken; a few punctate granules on base of lateral tubercles. Scutellum transverse; sides somewhat arcuate; apex rounded. Elytra with sides tapering to apices, which are together rounded; extreme base smooth, rest of basal fifth with few rather large granules on gibbosities, humeral areas with many more, some smaller, granules gradually smaller to middle, continued as punctures to apex; humeri rounded, with an irregular cluster of tubercles at posterior angle. Procoxae globose, before armed with a very obtuse tubercle; profemora nearly parallel-sided, rather finely, transversely rugose above and below, mesofemora clavate from base, not tapering apically, metafemora clavate from apical third. Fifth sternite one and one-third times as long as fourth, emarginate at apex. Antennae about one and one-half times body length; scape gradually clubbed, transversely rugose on all sides.

LENGTH 17 mm.; width 7 mm.

*Holotype*.—Male; Pied Saut, Oyapok River, French Guiana, Feb., 1918; (S. M. Klages); [C.M.].

### **Oncideres amputator Fabricius**

PLATE XIII, FIGURE 15

*Lamia amputator* Fabricius, *Ent. Syst.*, I, (2), 1792, p. 276. Fabricius, *Syst. Eleuth.* II, 1801, p. 293. Guilding, *Trans. Linn. Soc. London*, XIII, 1822, p. 604, pl. 30, f. 1-4.



*Oncideres amputator* Fabricius. Lucas, Dict. Pitt. d'Hist. Nat., VIII, 1839, p. 581, pl. 648, f. 1. Poëffig, Ill. Naturg., IV, 1851, p. 81, f. 3005.

*Oncideres lherminieri* Forsstrom, in Schönh., Syst. Ins., I, 3, 1824, p. 419.

Distinguished by the general light gray pubescence; pronotum with five, very transverse, nearly coalescent maculae; elytra on basal fifth finely and closely, but irregularly, granulate, and the entire disk maculate regularly with reddish-ochraceous; the body beneath is densely maculate with white laterally on mesosternum and metasternum.

FEMALE. Elongate-ovate, cylindrical, elytra subconvex; piceous, elytra dark brown, more or less fuscous basally. Head with occiput yellowish-gray, rest reddish-ochraceous; eye outlined with brighter reddish-ochraceous. Pronotum gray, varied slightly with reddish-ochraceous; at middle with a transverse; glabrous line, feebly interrupted. Scutellum and base of elytra reddish-ochraceous; remainder of elytra covered with gray pubescence, sprinkled all over with reddish-ochraceous maculae, about thirty to forty on each elytron; base with glabrous granules, succeeded by glabrous punctures after basal quarter and continued to apex. Beneath reddish-brown, densely grayish-pubescent, sides of pro-, meso-, and metasterna white, narrowly so along sides of sternites, apices of sternites margined with reddish-ochraceous. Antennae with proximal two segments piceous to black, rest lighter; clothed with gray pubescence. Legs piceous or black, beneath gray pubescent, fulvous above.

Head above finely, densely punctate; front finely, densely punctate, at middle with a few coarser, deep punctures, near antennal tubercles slightly rugose; genal stripe slightly pubescent; eye with lower lobe oblong, subequal to gena; antennal tubercles feeble. Pronotum transverse, wider apically, constricted behind lateral tubercle, which is feebly elevated, ending in a short, blunt spine; glabrous portion of median line more carinate than tubercled; base of disk and lateral tubercles with coarse, scattered punctures. Scutellum transverse; sides slightly arcuate, oblique; apex rounded. Elytra with sides slightly arcuate to apices, which are together rounded; extreme base smooth, then moderately granulate to basal quarter, larger granules on gibbose portion, thence punctate to apex; humeri rounded, basal margin glabrous, shining, a large, feebly prominent tubercle at hind angle. Procoxae with a very feeble tubercle before; femora clavate, profemora more feebly so, without rugosities. Fifth sternite one-fourth longer than fourth, feebly emarginate at apex, with a narrow, triangular impression at middle. Antennae shorter than body; slightly fringed to fourth; scape slender, clavate gradually, not rugose.

LENGTH 22 mm.; width 8 mm.

*Type locality.*—West Indies.

*Distribution.*—Guadeloupe.

GUADELOUPE: 2 ♀; no locality data; [A.M.N.H.—1; A.N.S.P.—1].

**Oncideres argentata** Dillon and Dillon, spec. nov.

## PLATE XIV, FIGURE 1

Closely allied to *O. amputator* but is more cylindrical in form; elytra very sparsely granulate, most granules towards and behind humeri, the silvery-white pubescence much denser, reddish-ochraceous maculae on basal half sparser and very irregular, a little denser apically, glabrous maculae very minute.

**FEMALE.** Elongate-ovate, moderately robust, subcylindrical, elytra subconvex; black. Head reddish-ochraceous and silvery-white variegated; front with the reddish-ochraceous predominating; eye margined broadly behind, more finely before, with reddish-ochraceous; genal stripe glabrous only along its margins. Pronotum silvery white varied with reddish-ochraceous, the latter forming a few more or less distinct, scattered maculae; disk with five transverse, fine, glabrous spaces, sometimes forming almost a complete line. Scutellum chalky white, a narrow, glabrous line medially. Elytra entirely covered with dense, silvery-white pubescence, on middle of each elytron at extreme base a short, oblique, fine, white line; humeri reddish-ochraceous to basal quarter; basal and lateral granules black, glabrous; disk of each elytron with between thirty to forty irregular, well separated, indistinct, reddish-ochraceous maculae, a few very minute ones scattered among them; punctures sparse, glabrous. Beneath dark reddish-brown, densely clothed with silvery-white pubescence; a rather broad, chalky-white vitta from behind sides of prothorax almost to metacoxae; abdomen with apical margins of sternites marked with reddish-fulvous, more distinctly so laterally, giving more or less the appearance of a lateral vitta. Antennae with proximal segments fuscous to piceous, from third dark-brown; covered with silvery-white pubescence. Legs piceous, silvery-white pubescent beneath, varied with reddish-ochraceous above.

Head with front very finely, densely punctate, with scattered, coarse punctures interspersed; eye with lower lobe oblong, slightly higher than gena. Pronotum transverse, apex wider than base, constricted behind lateral tubercles; with five very transverse, narrow, feebly raised tubercles, almost in straight line and nearly connected; lateral tubercles feeble, with a short, robust blunt process at apex; above at base with a few punctate granules. Scutellum transverse, sides nearly straight, apex very broadly rounded. Elytra with sides very feebly arcuate to apices, which are together rounded; extreme base smooth, then at middle of each base with from six to eight rounded granules, many on humeri, extending along sides almost to middle; disk with glabrous punctures, sparse on basal half, more numerous apically; humeri rounded, studded with a few well-separated tubercles behind, these rather small. Procoxae slightly tumid, unarmed before; femora clavate, profemora not rugose. Fifth sternite one and one-fourth times length of fourth, emarginate at apex; triangularly impressed at middle. Antennae as long as body; scape gradually clavate, not rugose.

LENGTH 18-19 mm.; width 6.5-7 mm.

*Holotype*.—Female; Colombia; (Eclipse Ovalle); [A.M.N.H.].

*Paratypes*.—2 females; topotypic; [A.M.N.H.].

**Oneideres sobrina** Dillon and Dillon, spec. nov.

PLATE XIV, FIGURE 2

Closely related to *O. argentata* but differs in pubescence above being grayish instead of silvery-white; maculae of elytra larger, rounded, distinct, and more orange in color; pronotal glabrous line more distinct, entire, with a distinct fulvous band before it; scutellum dull fulvous instead of chalky-white; humeri with a conglomeration of tubercles, not studded with a few well-spaced oncs; broad vitta on sides of sternites dark grayish-brownish, not chalky-white; form is slightly more robust. The arrangement of the granules on the base of the elytra is also different.

**MALE.** Elongate-ovate, rather robust, subcylindrical, elytra convex; piceous. Head covered with dull fulvous pubescence; eye margined behind with a narrow line of lighter fulvous; front laterally narrowly margined with brighter fulvons. Pronotum covered with a mixture of gray and dull fulvous pubescence; at middle with a fine, transverse, black line, just before which the fulvous pubescence is concentrated, forming a narrow band. Scutellum dull fulvous pubescent. Elytra covered with a dull silvery-gray pubescence; at very base with irregular, confused maculae of orange-fulvous, each disk with around thirty-five rounded, orange-fulvous maculae; on basal fifth with only a few shining tubercles, thence with shining, sparse, glabrous punctures. Beneath reddish-brown, covered with yellowish-gray pubescence; from pronotum laterally to metacoxae rather broadly, grayish-brown pubescent; sternites laterally with rather indistinct, yellowish maculae, each apically fringed with pale yellow. Legs dark reddish-brown, beneath yellowish-gray pubescent, brownish-gray above. Antennae with scape piceous, remaining segments pale; clothed with yellowish-gray pubescence.

Head with front finely, densely punctate, with coarse, larger punctures interspersed; genae rugose, slightly pubescent; eye with lower lobe oblong, elliptical, about one and one-third times as high as gena; antennal tubercles slightly prominent, armed very feebly at apex, horns erect. Pronotum transverse, apex wider than base, constricted behind lateral tubercle, which is moderately elevated, broad, not distinctly produced at apex; disk medially with a narrow, transverse carina, sometimes interrupted; and at apical third laterally transversely rugose, rugosities fairly long. Scutellum transverse, sides arcuate; apex subacutely rounded. Elytra rather straight to apical quarter, then curved to apices, which are together rounded; extreme base smooth, then with one (or two) transverse row of moderate, not closely-set granules (from three to five in a row on each elytron), immediately behind these granules becoming very feeble glabrous elevations, from middle becoming punctures, laterally behind shoulders with very sparse, feeble granules; humeri rounded, with four to five conglomerate tubercles on rounded portion before and on posterior angle. Procoxae swollen, with a good sized, obtuse tubercle; profemora broadly arcuate, sides parallel, rugose from base to apex beneath, feebly so above, other femora clavate. Fifth sternite one and one-fourth as long as fourth, emarginate at apex, not visibly impressed. Antennae one and two-thirds times length

of body; scape robust, clavate gradually, transversely rugose on all sides to apex, more coarsely so internally.

**FEMALE.** Slightly more robust; elytra feebly widened behind middle; procoxae swollen but not tubercled; profemora clavate, rugose only at very base beneath and there feebly so; fifth sternite emarginate at apex, broadly, triangularly impressed at middle, impression not attaining base; antennae about as long as body; scape more slender, only rather feebly rugose internally at base.

LENGTH 16.6-17 mm.; width 6.5 mm.

**Holotype.**—Male; Rio Frio, Magdalena, Colombia, Jan. 13, 1929; (P. J. Darlington); [M.C.Z.].

**Allotype.**—Female; Mt. Pruner, Rio Frio, Magdalena, Colombia, Jan. 13, 1929; (P. J. Darlington); [M.C.Z.].

### **Oncideres bouchardi** Bates

PLATE XIV, FIGURE 3

*Oncideres bouchardi* Bates, Ann. Nat. Hist., (3), XVI, 1865, p. 165.

The thin grayish pubescence of body above, the glabrous markings on clytra usually reticulated, granules on base larger, the fulvous maculae much smaller and well spaced, and the nearly entire gray undersurface, with only faint patches of denser pubescence, distinguish this from the closely related *O. amputator*.

**MALE.** Elongate, rather robust, subcylindrical, elytra subconvex; piceous, above and below covered with hoary-gray pubescence. Eye behind rather narrowly margined with paler gray, in front vitta widened apically. Pronotum at apex fringed with pale fulvous pubescence; a narrow, glabrous, transverse line at middle, sometimes nearly broken and forming three transverse maculae. Elytra at extreme base more densely gray near humeri; disk to apex covered with numerous, small, more or less rounded, fulvous maculae, in number from forty to fifty on each elytron; basal quarter with shining granules, thence to apex with punctures surrounded by glabrous areas, these often reticulate. Beneath from and including sides of prosternum, entire meso- and metasternum to metacoxae white pubescent; metepisternum with a dense white spot basally; sternites margined apically with pale yellowish pubescence. Legs piceous, hoary pubescent, slightly paler beneath. Antennae with scape piceous, usually glabrous, rest of antennae paler, thinly covered with hoary pubescence.

Head very finely, densely punctate; front finely, densely punctate and with coarse, scattered punctures; genae feebly pubescent, more or less vertically rugose; eye one and one-half times as high as gena, oblong-ovate; antennal tubercles slightly prominent, not produced at apex. Pronotum transverse, wider at apex than at base, constricted behind lateral tubercles, which are feebly elevated, ending in a short, subacute spine; disk medially with a sinuate carina, somewhat broken into three transverse tuberosities; laterally between apex and lateral tubercles about five to six strong, transverse carinae or long rugosities; at base of lateral

tubercles a few punctate-granules. Scutellum transverse; sides nearly straight, oblique; apex rather broadly rounded. Elytra with sides nearly straight to apical quarter, thence arcuate to apices, which are together rounded; extreme base smooth, basal fifth (laterally basal third) with few, rather close granules, the first one or two transverse rows have the granules large, followed by smaller, gradually diminishing ones, thence with coarse, deep punctures, gradually finer apically; humeri feebly rounded, oblique, a larger, slightly prominent tubercle at posterior angle. Procoxae tumid, before with a very obtuse tubercle; profemora more or less arcuate, parallel-sided, transversely rugose above and below, other femora simply clavate. Fifth sternite one and one-half times as long as fourth, emarginate at apex, not visibly impressed. Antennae one and two-thirds times longer than body; scape rather robust, clavate, moderately rugose on all sides.

**FEMALE.** Front only very slightly concave between antennal tubercles; elytra much more robust; procoxae with only a suggestion of a tubercle before; profemora more clavate, not rugose; fifth sternite rather deeply emarginate apically, broadly triangularly impressed at middle; antennae as long as, or slightly longer than, body; scape less robust than male, not rugose, or with a very few rugosities internally.

LENGTH 17-19 mm.; width 5.5-7 mm.

*Type locality.*—Santa Martha, New Grenada.

*Distribution.*—Northern South America.

COLOMBIA: ♂, 2 ♀; no locality data; [M.C.Z.].

VENEZUELA: ♂, ♀; Caracas; [A.N.S.P.].

BRAZIL: ♀; Santarem; [M.C.Z.].

### ***Oncideres fulvoguttata* Dillon and Dillon, spec. nov.**

PLATE XIV, FIGURE 4

*Fulvoguttata* resembles, to some extent, *O. albomaculata*, but the elytra medially have a rather broad, grayish fascia (which has scattered minute white maculae upon it) and the apical third is minutely but densely maculate with fulvous.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra subconvex; fuscous to piceous, elytra dark reddish-brown. Head covered thinly with fulvous pubescence; eye margined broadly behind, narrowly before, with a more concentrated fulvous pubescence. Pronotum gray, variegated with fulvous, with an indistinct, pale fulvous, sinuate, narrow band, just before the sinuate, glabrous, transverse line at middle. Scutellum thinly fulvous pubescent. Elytra at extreme base fulvous and gray variegated, thence to basal third grayish-brown, followed by silvery-gray pubescence to apex; basal granules glabrous, shining; medial third with grayish pubescence concentrated into a few indistinct maculae and with scattered, small, glabrous spaces; apical third with small, rounded, fulvous maculae, numbering from twenty to twenty-five on each elytron; at apical third a narrow band consisting of glabrous punctures, from each apex there is a pair of glabrous, forked lines, one along suture and one laterally. Beneath dark reddish-brown, clothed rather densely

with pale yellowish-gray pubescence; metasternum with a vague, chalky-white macula each side. Antennae with two proximal segments dark reddish-brown, base of scape piceous, remaining segments paler; rather thinly covered with gray pubescence. Legs reddish-brown, beneath gray pubescent, above variegated with fulvous.

Head above finely, densely punctate; front finely, densely punctate, with sparse, coarser punctures interspersed, above epistoma rugose; antennal tubercles feebly elevated, apically with a very short, stout, blunt spine directed vertically; eye with lower lobe oblong-ovate, about one and two-thirds times as high as gena below it; genal stripe bare, rugosely punctate. Pronotum transverse, slightly wider at apex, constricted here as well as at base; sides feebly arcuate, armed with feeble, lateral tubercles, which end in a short, blunt process; disk at middle with five feebly elevated tubercles, transversely placed, that sometimes coalesce to form a continuous line, basally and on base of lateral tubercles with sparse punctate granules. Scutellum transverse; sides feebly rounded, apex broadly so. Elytra with sides nearly straight, oblique, from apical third rounded to suture; extreme base smooth, then to basal third with few, rather large granules, smaller but more numerous on humeri; on middle third these become much smaller and only feebly elevated, thence to apex punctate, more densely so than at middle; entire humeral angle tubercleform, glabrous, slightly prominent. Procoxae tumid, with a very robust, conical tubercle before; femora clavate, profemora nearly parallel-sided, robust, rugose above and below on basal two-thirds. Fifth sternite about one-third longer than fourth, emarginate apically, with a feeble, triangular impression at middle. Antennae about one and one-third body length, robust; scape clavate gradually from base, internally on basal half diagonally rugose; third segment elongate, swollen, almost as robust as scape.

FEMALE. Front nearly flat between antennae; elytra less tapering, sides broadly rounded, indistinctly wider just behind middle; procoxae less tumid, with a feeble, obtuse tubercle before; profemora feebly, rather abruptly, clavate, not rugose; fifth sternite emarginate at apex, and with a broad, triangular impression medially; antennae slightly longer than body; scape gradually clavate, not rugose; from fourth, segments annulate at base.

LENGTH 11-15 mm.; width 4.5-6.2 mm.

*Holotype*.—Male; Santarem, Brazil; [C.M.].

*Allotype*.—Female; topotypic; (S. M. Klages); [C.M.].

*Paratypes*.—Male; topotypic, July, 1919, (S. M. Klages); [C.M.]. Female; topotypic, July, 1919; (S. M. Klages); [authors' coll.]. Female; Amazon, Brazil; [L. Lacey].

### ***Oncideres pittieri* Gahan**

*Oncideres pittieri* Gahan, Ann. Mag. Nat. Hist., (6), xiv, 1894, p. 119.

“Related to *O. amputator*. Prothorax behind middle each side with a black, shining, elevated tubercle, above with three black, shining maculae arranged in a transverse row before middle. Elytra fulvous maculate, each side with an elongate, large, white patch lacerated above, at base densely covered with black shining

granules, disk to middle less densely but evidently granulate. Body beneath, especially towards sides, and prothorax laterally, whitish. Sternites fulvous behind. Female. Length 23 mm.; width 8.75 mm.

"Savannahs and forests of Limon, Costa Rica, facing Pacific.

"From *Oncideres amputator* and *O. putator* and other allied forms this is distinguished by the somewhat larger and more closely placed shining granules on the base of elytra and by the extension of these granules on the dorsal region almost up to middle. The long, white patch on side of each elytron is also characteristic. This reaches the margin of the elytron on outer side, while its inner border is very irregular and is broken by one large gap, which divides the patch into a larger anterior and a smaller posterior portion. Near anterior end, which lies a little behind shoulder, a few isolated, black granules are to be seen. Pubescence on under side of body is grayish white, distinctly white and rather dense on sides of prothorax and mid and hind breast. Abdomen fulvous towards hind borders." (Copy of the original description).

### *Oncideres bucki* Melzer

PLATE XIV, FIGURE 5

*Oncideres bucki*, Melzer, Rev. Ent., iv, 1934, p. 95, pl. 2, f. 12.

"Elongate, subcylindrical; piceous, elytra paler; covered with ashy pubescence, variegate with ochraceous. Thorax laterally with a small, acute, black tubercle; dorsum in middle with an ochraceous fascia including five denuded, black, shining maculae. Elytra with numerous, rounded, gray maculae including minute, black punctures, on each side at middle a large, irregular gray band, not attaining suture and including numerous, rounded, denuded points; antennae rufo-testaceous, segments one and two black; body beneath densely ashy tomentose. Head in male broad, between antennae strongly concave, finely punctulate-scabrose; front strongly elongate, longitudinally sulcate, antennal tubercles large, elevated, apically truncate, medially slowly sinuate; eyes minutely granulated, deeply emarginate, lower lobe elongate; genae slightly shorter than lower ocular lobe, gray tomentose, finely, transversely scabrose; female ample, between antennae broadly concave, antennal tubercles visibly elevated; antennae in male one and one-half times body length, female surpassing elytral apex, finely ashy villose, below basally ciliate, scape obconical, in male externally at base transversely scabrose. Thorax transverse, convex, before and behind moderately constricted, beneath pubescence not distinctly punctate; scutellum densely yellow-ashy tomentose. Elytra at base broader than thorax, subcylindrical, apices together rounded; humeri nude, black, shining; after base with moderate punctures densely and irregularly cribrate, punctures behind middle evanescent. Legs robust, short; femora clavate, profemora in male below and laterally coarsely, transversely plicate, female unarmed. Procoxae globose, in male armed with a large, obtuse tubercle, female unarmed. Prosternal process broad, posteriorly arcuate and dilate; mesosternal process visibly broader, more or less flat. Length 20-21 mm.

"Two examples: from Rio Grande do Sul: Porto Alegre, Nova Petropolis, Brazil."

The species is placed here as the maculation of the elytra in the illustration seems most nearly like that of *O. putator*. The above is a translation of the original description; the figure is redrawn from Melzer's illustration.

### ***Oncideres putator putator* Thomson**

PLATE XIV, FIGURE 6

*Oncideres putator* Dejean, Cat. Col., 3rd ed., 1837, p. 369. [nom. nud.].

● *Oncideres putator* Thomson, Physis, II, 1868, p. 81.

This species has the elytra covered with thin, grayish-brown pubescence, with numerous small, glabrous maculae, as well as with small, irregular, white ones outlined with ochraceous, medially distinctly banded with a wide, whitish fascia; pronotum with five small, glabrous maculae in a transverse row.

MALE. Elongate-ovate, robust, subcylindrical, elytra convex; fuscous or piceous, elytra sometimes dark reddish-brown; brownish-gray or yellowish-brown pubescent. Head with eye completely margined with a narrow line of bright yellow; front vittate each side with the same color. Pronotum with small, pale yellowish maculae between the five glabrous markings, which are in a nearly straight line across the middle; apical margin fringed with ochraceous or pale yellow. Elytra paler at extreme base, thence brownish-gray pubescent; at middle with a wide, hoary-gray, transverse band which attains suture, the hind margin of which is deeply sinuated, entire surface sprinkled with well-spaced, small, whitish, round maculae, which are more or less broadly and irregularly outlined with ochraceous; and with many minute, circular, glabrous spaces, which are irregularly placed, these displaced at base by granules. Beneath reddish-brown, with irregular, yellowish-gray pubescence; sterna at sides vaguely and broadly vittate with dark brown pubescence; abdominal sternites each margined apically with yellow. Legs dark reddish-brown or fuscous, gray pubescent, above tinged with brownish. Antennal scape piceous, remaining segments usually paler, clothed with yellowish-gray or ochraceous pubescence.

Head above finely, densely punctate; front very finely, densely punctate, with a few coarser punctures interspersed, sometimes feebly rugose; genae moderately pubescent, more or less rugosely punctate; eye with lower lobe broadly oblong-ovate, about equal to, or a little shorter than, gena; antennal tubercles prominent, not produced at apex. Pronotum transverse, apex slightly wider than base, with one apical and two basal transverse sulci, the former wide and shallow, the latter narrow and shallow, not foveate laterally, the fovea represented only by a broad, feeble impression; disk with five more or less transverse, glabrous callosities just before middle, the lateral ones only slightly elevated; lateral tubercles broad but feebly elevated, terminating in a very short, robust, obtuse process, base above with punctate-granules; sides before tubercles transversely rugose. Scutellum transverse, sides nearly straight, oblique, apex broadly rounded. Elytra with sides feebly wider behind middle, apices together rounded; extreme base smooth, thence with a



moderate number of small, distinct granules on basal third, gradually evanescent to middle, thence to apex replaced by glabrous punctures; humeri feebly rounded, terminating in a small tubercle, which is no larger than the numerous surrounding granules. Procoxae prominent, internally with a very broad, obtuse tubercle; profemora suddenly widened at basal third, almost parallel-sided to near apex, then narrowed, apex and base subequal, transversely rugose on both anterior and posterior faces for almost entire length, other femora clavate. Fifth sternite slightly longer than fourth, apex emarginate. Antennae two-thirds again as long as the body, fringed beneath on proximal segments, with only a few hairs on each of the distal segments; scape robust, gradually clavate, with three or four deep grooves internally and externally, thence rugose to apex, above densely punctate; eleventh subequal to preceding three segments together.

**FEMALE.** More robust; front feebly concave between antennal tubercles, which are less prominent; elytra more distinctly widened behind middle; procoxae globose, with a very feeble tubercle internally before; profemora slightly clavate, not rugose on sides; fifth sternite one third longer than fourth, apex emarginate, with a very broad, obtusely triangular impression at apex; antennae one-fourth longer than body; scape a little less robust, with one or two feeble grooves at base of sides, rest of surface densely and finely punctate.

LENGTH 21.5-24.5 mm.; width 8-9.8 mm.

*Type locality.*—Mexico.

*Distribution.*—Mexico to Guatemala.

MEXICO: ♂; Jalapa, V. C.; (Höge); [U.S.N.M.]. 2 ♂; 2 ♀; no locality data; [M.C.Z.].

GUATEMALA: ♀; no locality data; Aug. 1907; (Stowe); [Ohio S. U.].

### **Oncideres putator brevifasciata** Dillon and Dillon, subspec. nov.

#### PLATE XIV, FIGURE 7

Like the typical form in all respects except the following: General color of pubescence above tends to be more fulvous. Eye with lower lobe slightly longer than gena in male, equal to it in female. Elytra with median fascia distinctly, rather broadly interrupted before suture, its anterior margin oblique, with a prolongation on the angle of the declivity reaching almost to humerus; basal granules much smaller and fewer in number; glabrous maculae very small and much sparser; humeri with a tubercle at its posterior angle which is usually distinctly larger than surrounding granules. Beneath with the lateral vittae of the sterna much broadened on metasternum, often covering this structure entirely.

LENGTH 16.5-23 mm.; width 6-8.8 mm.

*Holotype.*—Male; Barro Colorado Island, Canal Zone; Jan., 1935; [M.C.Z.]

*Allotype.*—Female; topotypic; June, 1939; (J. Zetek); [U.S.-N.M.].

*Paratypes*.—♂, topotypic; Jan., 1935; (M. Bates); [M.C.Z.]. ♀; Empire; Canal Zone; [M.C.Z.]. ♂; topotypic; May 12, 1926; [C. T. Greene]; [U.S.N.M.]. 3 ♂, 5 ♀; Jarbace, Costa Rica; Nov., 1902; [M.C.Z.]. 2 ♀; Costa Rica; [M.C.Z.]. ♀; Palo Seco, Costa Rica, 30 m., on cut wood; [U.S.N.M.]. ♂; Navarro, Costa Rica; March, 1934; (W. M. Mann); [U.S.N.M.].

A rubbed specimen from Colombia, without further data, in the Carnegie Museum, has been labelled as belonging here, but, due to its condition, has not been made a paratype.

### **Oncideres ocellaris** Bates

PLATE XIV, FIGURE 11

*Oncideres ocellaris* Bates, Biol. Cent.-Amer., Col., v, suppl. 1885, p. 367.

Resembles *O. putator* in many respects; it differs from it in having the elytral fascia very indistinct, delimited posteriorly by a distinct, narrow, brown band; elytral white maculae smaller, outlined by a ring of ochraceous, and more or less arranged in rows; the glabrous maculae are firmer and the granulation is sparser and finer, too.

**MALE.** Elongate-ovate, moderately robust, subcylindrical, elytra convex; dark brown to black. Head above dark brown, somewhat variegated with gray; front gray and ochraceous variegated, very indistinctly margined laterally with slightly denser pubescence; eye narrowly margined before and behind with ochraceous, the margination being entirely distinct from that of front. Pronotum dark brown and hoary gray variegated; apical margin fringed with ochraceous pubescence; disk indistinctly maculated across middle and on base with ochraceous, the maculae more or less merging to form vague, broken bands; with three narrow, transverse glabrous maculae, the middle one sometimes indistinct. Scutellum dark brown pubescent. Elytra at extreme base hoary-gray, with indistinct ochraceous maculae, thence to basal quarter with brown pubescence, followed by a band of very fine pubescence which extends to beyond middle, its posterior margin very deeply sinuated, delimited by a narrow band of dark brown pubescence, thence to apex thinly gray pubescent; entire disk with more or less regular rows of tiny, whitish maculae, each encircled by ochraceous pubescence, and sprinkled with many, minute, rounded, glabrous maculae. Body beneath dark brown to fuscous, rather densely yellowish-gray pubescent, pubescence unevenly distributed; sterna at sides narrowly margined with brown pubescence; sternites banded at apices with ochraceous. Legs dark brown to fuscous, gray pubescent, above somewhat ochraceous. Antennae piceous, slightly paler distally, densely yellowish-gray pubescent.

Head above very finely, densely punctate; front finely, densely punctate, with a few coarse, scattered punctures; genae rugose, densely pubescent; eye with lower lobe smaller and narrower than gena, broadly ovate; antennal tubercles prominent, unarmed at apex. Pronotum strongly transverse, apex slightly wider than base; apical transverse sulcus wide and shallow, internal basal one narrow and deep,

towards each lateral tubercle foveate; disk just before middle with three more or less cariniform tubercles, nearly in a straight line; sides before lateral tubercles transversely rugose; lateral tubercles broad, moderately elevated, terminating in a short, rounded process, on their bases above with a few punctate-granules. Scutellum transverse, sides nearly straight, only feebly oblique, apex broadly rounded or subtruncate. Elytra with sides feebly widened behind middle, apices together broadly rounded; extreme base smooth, thence to basal fifth with very few, small granulate-punctures which become more minute to middle or extend even to apex, although but feebly elevated; *hunneri* slightly rounded, with a few larger granules around it. Procoxae with a short, conical tubercle before, which terminates in a blunt process. Fifth sternite one-half longer than fourth, apex emarginate. Antennae one and three-fourths times length of body, fringed beneath to fifth and finely so to apex; scape robust, gradually clavate, with three deep transverse grooves at base, surface transversely rugose; eleventh segment elongate, subequal to three preceding segments combined.

**FEMALE.** More robust; front broader; gena half again as high as eye; antennal tubercles less prominent; elytra more distinctly widened behind middle; procoxae tumid but only indistinctly tuberculate; profemora with sides nearly parallel, slightly widened apically, not transversely rugose before or behind; fifth sternite one half longer than fourth, apex emarginate, very deeply, triangularly impressed from apex to base; antennae one third longer than body; scape slightly less robust, with one or two feeble grooves basally, finely, densely punctate, not rugose, eleventh nearly as long as third segment.

LENGTH 16.5-24.5 mm.; width 5-9 mm.

*Type locality.*—Cerro Zunil, Guatemala.

*Distribution.*—Mexico to Nicaragua.

MEXICO: 4 ♂, 6 ♀; Chiapas, Pacific slope Cordilleras, 800-1000 m.; (L. Hotsen); [U.S.N.M.]. 2; no locality data; [M.C.Z.—♀; A.N.S.P.—♂].

NICARAGUA: ♂; no locality data; [A.M.N.H.].

GUATEMALA: ♂, ♀; no locality data; [M.C.Z.].

NO LOCALITY DATA: ♀; [U.S.N.M.].

### **Oncideres senilis** Bates

PLATE XIV, FIGURE 8

*Oncideres senilis* Bates, Biol. Centr.-Amer., Col., v, suppl., 1885, p. 367.

*Senilis* is similar to the two preceding species in general form and color; from them, it may be recognized by the elytra almost totally lacking a medial fascia, the white spots indistinct or wanting, its glabrous maculae are minute or obsolete, the granules are very fine and very sparse, and the pronotal maculae are more strongly transverse than in *O. putator*.

**MALE.** Elongate-ovate, rather robust, subcylindrical, elytra subconvex; reddish-brown to fuscous, elytra paler. Head clothed with grayish-brown; front

variegated with grayish-brown and hoary-gray; very indistinctly margined laterally with denser pubescence; eye entirely and finely margined with ochraceous; gena gray above, yellowish near mouth. Pronotum grayish-brown pubescent, maculate with hoary-gray across middle and along base, these maculae more or less forming broken bands; three or five glabrous maculae in a nearly straight line, the median and most lateral ones linear, the two sublateral ones oval, all transverse; apical margin fringed with ochraceous. Scutellum thinly ochraceous. Elytra at extreme base gray and yellow, or gray and ochraceous, variegated; rest of elytra thinly, pale grayish-brown pubescent, before middle with a very broad, indistinct band of gray; entire surface with scattered, irregular, small, very vague maculae of whitish, broadly (but indistinctly) ringed with ochraceous, and with sparse minute, rounded, glabrous points; base with a few shining granules. Beneath reddish-brown, rather thinly and unevenly gray pubescent; sterna (especially mesepisterna) laterally dark brown pubescent; abdominal sternites margined with yellow. Legs dark reddish-brown or piceous, grayish pubescent, above feebly ochraceous. Antennae with scape dark reddish-brown to piceous, rest reddish-brown, gradually paler distally; clothed with thin brownish-gray pubescence.

Head above very finely, densely punctate; front minutely, densely punctate, and with well spaced, deep punctures intermingled; genae finely, densely, somewhat rugosely punctate; eye with lower lobe oblong, a little shorter than gena; antennal tubercles prominent, unarmed. Pronotum transverse, apex wider than base; apical transverse sulcus deep, sinuate, internal basal one subfoveate each side; disk with three glabrous, well elevated callosities near middle, the lateral ones only feebly raised; lateral tubercles prominent, ending in a short, obtuse process, its base above with punctate granules. Scutellum transverse, sides nearly straight, only feebly oblique, apex very broadly rounded. Elytra with sides slightly widened behind middle, apices together broadly rounded; extreme base smooth, disk on basal fifth with a few scattered granules, becoming more sparse and smaller to middle, followed to apex by sparse punctures; humeri rounded, with a distinct tubercle at its posterior angle, behind which are a few small granules. Procoxae with a large, conical tubercle internally before, its apex obtuse; profemora slightly narrower at apex than extreme base, at basal third very distinctly widened, posterior and anterior face transversely rugose on basal two-thirds, other femora strongly clavate; hind legs only slightly shorter. Fifth sternite one-half longer than fourth, apex deeply emarginate. Antennae one-third or one-half longer than body, beneath shortly fimbriate on first, third, and fourth segments, rest with only two or more hairs; scape robust, gradually clavate, with several moderate grooves basally, transversely rugose laterally on basal two-thirds; last segment subequal to preceding two segments.

**FEMALE.** Much more robust; antennal tubercles slightly prominent; eye distinctly shorter than gena; elytra more strongly widened behind middle; procoxae with a broad, obtuse tubercle; profemora widened at middle, apex and base subequal; fifth sternite half again as long as fourth, apex emarginate, with a broad triangular impression, extending not quite to base; antennae just a little longer than body; eleventh segment not elongate; scape rather slender, feebly grooved at base, finely, densely punctate.

LENGTH 17-23 mm.; width 6.5-9 mm.

*Type locality*.—Vera Cruz and Jalapa, Mexico, and Chontales, Nicaragua.

*Distribution*.—Mexico to Nicaragua.

MEXICO: 3 ♂, 2 ♀; Jalapa; (W. Schaus); [A.M.N.H.]. ♂; no locality data; [M.C.Z.].

### *Oncideres pustulata* LeConte

PLATE XIV, FIGURE 9

*Oncideres pustulata* LeConte, Proc. Acad. Nat. Sci. Phila., vii, 1854, p. 82. Horn, Trans. Amer. Ent. Soc., xii, 1885, p. 142. Hamilton, Trans. Amer. Ent. Soc., xxiii, 1896, p. 140. Schaeffer, Can. Ent., xxxviii, 1906, p. 19. Linsley and Martin, Ent. News, xlv, 1933, p. 183. Linsley, Journ. Econ. Ent., xxxiii, 1940, p. 561. Dillon and Dillon, Sci. Publ. Reading Pub. Mus., v, 1945, p. xv.

*Oncideres putator* High (non Thomson), U. S. Dept. Agr. Bull., 184, 1915, p. 109, pl. 1-4. Craighead, Can. Dept. Agr. Bull., no. 27, n.s., 1923, p. 132.

*Oncideres trinodatus* Essig (non Casey), Ins. West. N. A., 1926, p. 460.

Much darker in general color than *O. putator*, the elytra have the fascia darker and consequently less distinct, the white maculae are much denser, more indistinct, and rather irregular in shape, and the basal tubercles are finer and less dense.

**MALE.** Elongate-ovate, robust, subcylindrical, elytra convex; black or piceous, elytra slightly paler. Head densely covered with brown-fulvous or brown pubescence; front sparsely variegated with hoary; eyes margined with fulvous. Pronotum densely light or dark brown pubescent, variegated with hoary and fulvous, with several scattered patches of paler pubescence, on apical margin fringed, basal margin with paler pubescence. Scutellum brown and fulvous pubescent. Elytra densely fulvous pubescent, variegated with brown, and with scattered small spots and streaks of whitish pubescence especially along suture and around the glabrous maculae, just before middle forming a wide indistinct band, behind which is an indistinct band of brown; glabrous maculae over entire disk, irregular in size and disposition, denser behind middle. Beneath piceous or dark reddish-brown, covered with whitish and fulvous pubescence, laterally becoming brown; metepisternum at apex fulvous and white maculate; sternites fringed apically with bright tawny pubescence. Legs and antennae piceous, the latter covered with brown and hoary pubescence, the brown predominating; legs usually entirely brown and hoary pubescent; profemora variegated with fulvous.

Head above minutely alutaceous and finely punctate; front wider above, slightly transverse, minutely, densely punctate, with very sparse, fine punctures interspersed, especially at middle; genae broad, feebly vertical, minutely, densely punctate, medially with a few rugose punctures; eye with lower lobe broadly oblong, not quite equal to gena in height; antennal tubercles robust, prominent, unarmed. Pronotum strongly transverse, more than twice as wide as long, constricted behind lateral tubercles, which are broad, moderately elevated and with the terminal process robust, obtuse; apical and basal sulci wide and shallow, curved, the latter

delimited behind at middle by a transverse ridge; disk with either two or three transverse, feebly raised tubercles in a straight line at middle, without distinct punctures except on base of lateral tubercles, where there are fine setigerous ones. Scutellum transverse, sides oblique, nearly straight, apex broadly rounded. Elytra widest at humeri, slightly narrowed just before middle; apices together rounded; disk with very sparse, small, feeble, rounded tubercles on basal quarter which are glabrous, thence sparsely punctate to apex; humeri feebly prominent, anterior margin slightly arcuate, glabrous, angle with a large tubercle. Prosternum widened strongly posteriorly. Procoxae anteriorly with a prominent, obtuse tubercle; femora robust, clavate, profemora thickened near base, then gradually attenuate apically, coarsely rugose on posterior and anterior faces on basal two-thirds. Fifth sternite as long as fourth, apex broadly emarginate. Antennae one and one-third times length of body; heavily fringed beneath on proximal three segments, more sparsely so apically; scape robust, gradually clavate from base, beneath coarsely rugose; third segment slightly longer than first; fourth much shorter than third, rest subequal, except the eleventh which is strongly elongate, acicular.

**FEMALE.** Much more robust than male; front more strongly expanded above; antennal tubercles feeble, not very prominent; procoxal tubercle broad, obtuse, feebly elevated; profemora clavate, not rugose; fifth sternite nearly twice length of fourth, apex deeply emarginate, disk at apex broadly, triangularly impressed; antennae as long as body, scape slender, nearly cylindrical, not rugose beneath, segments gradually shorter from third.

LENGTH 17-27 mm.; width 6-10.5 mm.

*Type locality.*—Laredo, Texas.

*Distribution.*—Apparently confined to Texas.

? ILLINOIS: ♂; Urbana, summer 1914; [A.M.N.H.].

TEXAS: all over state, but more common in the south (175 specimens); on huisache, *Vachellia farnesiana*, *Acacia berlandieri*, *A. nesiana*, and citrus trees.

### ***Oncideres canidia* Dillon and Dillon, spec. nov.**

PLATE XIV, FIGURE 10

Most closely approximates *O. senilis* in its appearance but is at once distinguished by being even more hoary pubescent. Elytra have a dark brown band behind the fascia as in *O. ocellaris* but it is wider and more distinct, the glabrous maculae are very minute or obsolete, as are the pronotal glabrous spots. The white maculae of the elytra are also indistinct or lacking.

**MALE.** Elongate-ovate, robust, cylindrical, elytra subconvex; dark reddish-brown, elytra much paler. Head above sparsely rufous-ochraceous or pale yellowish-gray pubescent; front hoary and rufous-ochraceous, or gray and pale yellowish, variegated, indistinctly vittate with denser laterally; eye completely margined with ochraceous or yellowish-gray. Pronotum hoary, variegated with either pale yellowish or rufous-ochraceous, gray predominating on basal half; disk with three (never

five) minute, glabrous, strongly transverse maculae at middle in a straight line, the median one with a pale pubescent, small spot either side. Scutellum rufous-ochraceous to pale yellowish-gray pubescent, basally each side touched with dark brown. Elytra to basal quarter rufous-ochraceous, intermixed somewhat with hoary-gray, thence to behind middle with a broad, entire band of hoary, the hind margin of which is deeply sinuate, behind this is a distinct band of dark brown, not attaining suture, apex ochraceous to yellow-gray, variegated with hoary; entire disk with small, rounded whitish maculae, usually indistinct, not outlined with colored pubescence; beneath humeri to basal quarter with a short, broad, distinct, dark-brown vitta; disk with very minute, sparse, glabrous points. Beneath reddish-brown, irregularly pubescent with whitish or rufous-ochraceous, sterna usually variegated hoary and rufous-ochraceous; mesepisterna, mesepimera and metepisterna dark brown pubescent; abdominal sternites indistinctly fringed with yellowish; metacoxae and basal two or three sternites tinged with dark brown. Legs dark reddish-brown or fuscous, brownish-gray pubescent, above rufous-ochraceous. Antennal scape dark reddish-brown or piceous, thinly clothed with rufous-ochraceous or gray; remaining segments paler, yellowish-gray pubescent, each segment usually annulate with darker at apex.

Head above minutely, densely punctate; front finely, densely punctate, with a few coarser punctures intermingled, sometimes more or less rugose; genae pubescent, rugose; eye with lower lobe ovate, subequal in height to gena; antennal tubercles prominent, unarined at apices. Pronotum transverse, apex only feebly wider than base; apical transverse sulcus broad, sinuate, basal sulci two in number, internal one narrow, laterally terminating in a more or less distinct fovea; disk just before middle with three minute, feebly elevated callosities, more or less transverse, median one sometimes nearly wanting; lateral tubercles broad, moderately elevated, ending in a broad, obtuse process. Scutellum transverse, sides nearly straight, subparallel, apex broadly rounded. Elytra very feebly broadened behind middle, thence rounded to apices, which are together broadly rounded; extreme base very narrowly smooth, disk with minute, very sparse granules on basal quarter, these gradually smaller but becoming more distinctly granulate-punctures to apex; humeri slightly rounded, with a distinct tubercle at the prominent posterior angle. Procoxac before with a small, but distinct obtuse tubercle internally; profemora subequal at base and apex, sides suddenly widened at basal quarter thence parallel to near apex, where they are suddenly constricted, transversely rugose on both anterior and posterior faces nearly to tip, other femora robust, clavate. Fifth sternite, feebly longer than fourth, apex emarginate. Antennae one-half or two-thirds longer than body, fimbriate distinctly on proximal four segments, thence sparsely so to apex; scape robust, gradually clavate, basally along sides with two or three deep grooves, transversely rugose to apex, above rugose; eleventh segment arcuate, nearly as long as three preceding segments together.

**FEMALE.** More robust; eye with lower lobe not as high as gena; antennal tubercles feeble; elytra distinctly widened behind middle; procoxac feebly and obtusely tubercled before; profemora clavate, not rugose; fifth sternite one-third longer than fourth, apex emarginate, broadly, deeply, triangularly impressed apically; antennae as long as, or slightly longer than, body; scape much less robust, only feebly grooved at base, densely finely punctate not rugose.

LENGTH 20-23.5 mm.; width 7-8.5 mm.

*Holotype*.—Male; Kingston, Jamaica, Stony Hill; 1937; (E. Nethersole); [U.S.N.M. number 57201.].

*Allotype*.—Female; Kingston, Jamaica, Dec. 18, 1897; (J. E. Duerden); [U.S.N.M.].

*Paratypes*.—Male; Raetown, Kingston, Jamaica, July, 1895; [C.M.]. Female, Jamaica, Sept., 1917; (A. H. Ritchie); [U.S.N.M.]. ♂; Snug Harbor, Montego Bay, Jamaica, 1910; (E. A. Andrews); [U.S.N.M.]. ♀; Jamaica; (T. Townsend); [U.S.N.M.]. ♂; Jamaica; [A.M.N.H.].

### **Oncideres dejeani Thomson**

#### PLATE XVI, FIGURE 1

*Oncideres pustulata* Dejean, Cat. Col., ed. 3, 1837, p. 369. (nom. nud.).

*Oncideres pustulata* Thomson, [non Leconte], Physis, II, 1868, p. 88.

*Oncideres dejeani* Thomson, loc. cit., p. 201. ●haus, Stettin Ent. Zeit., LXI, 1900, p. 174. Heller, Stettin Ent. Zeit., LXV, 1904, p. 395, pl. 5, f. 3. Borgmeier, Rev. Ent., I, 1931, p. 431.

Most readily distinguished by the elytra being very densely and minutely granulate over entire basal third; pronotum with a rufous-ochraceous band before the transverse carina; elytra sparsely white maculate to middle, thence fulvous and more densely maculate to apex.

**MALE.** Elongate-ovate, robust, cylindrical, elytra subconvex; piceous or black, elytra medium to dark reddish-brown. Head entirely fulvous to rufous-ochraceous pubescent, sometimes hoary along occiput; eye margined posteriorly with rufous-ochraceous and pale yellowish; front laterally vittate with fulvous or rufous-ochraceous. Pronotum hoary, variegated with tawny or rufous-ochraceous, just before middle with a broad band of rufous-ochraceous, which is margined posteriorly with a glabrous black line. Scutellum and elytra at base to anterior quarter pale fulvous, the latter thence to behind middle densely irrorate with white, more or less condensed posteriorly to form a sinuate, indistinct band, thence minutely irrorate with pale fulvous, becoming whiter and denser apically; entire disk with a few, rounded ochraceous maculae very sparse basally, denser posteriorly, replaced on lateral two-thirds of median fascia by whitish ones. Beneath reddish-brown, rather densely and irregularly ashy-gray pubescent; sterna laterally with indistinct, irregular maculae of rufous-ochraceous; abdomen vaguely vittate either side with rufous-ochraceous, sternites apically fringed with pale yellowish. Legs piceous, hoary-gray pubescent, above tinged with rufous-ochraceous. Antennal scape piceous, remaining segments paler; proximal three segments clothed with yellowish-gray pubescence, rest with darker.

Head above finely, densely punctate; front moderately concave between antennal tubercles, very finely, densely punctate, with coarser punctures interspersed;



genae strongly transverse, only slightly pubescent, scabrose; eye with lower lobe oblong, about two and one-half times the height of gena; antennal tubercles feebly prominent, often produced at apex into a short, obtuse tooth. Pronotum transverse, apex feebly wider than base; with a feeble apical transverse sulcus, basal internal one rather deep, terminating each side above in a distinct fovea; disk with a fine, cariniform line across middle, base sparsely punctate-granulate, as are the bases of the lateral tubercles; these tubercles are broad, feebly elevated, terminating in a short, subacute, robust process. Scutellum transverse, sides feebly arcuate, apex broadly rounded. Elytra with sides slightly widened behind middle; apices together rounded, each shortly but distinctly dentate at suture; extreme base smooth, thence to basal quarter densely and minutely granulate, gradually becoming rugosely punctate to apex, more obsoletely so posteriorly; humeri rounded, terminating at posterior angle in a larger tubercle, the whole beset with numerous small granules. Procoxae before armed with a broad, obtuse, small tubercle; profemora feebly, gradually clavate, on anterior and posterior faces moderately, transversely rugose, other femora robust, clavate. Fifth sternite one-half longer than fourth, apex deeply emarginate. Antennae one and one-half length of body, fimbriate beneath, distinctly so on proximal four segments, feebly on rest; scape moderately robust, gradually clavate, with four or five deep grooves internally and externally, rest of surface finely, densely punctate; eleventh segment about equal to two preceding.

**FEMALE.** Much more robust; head with front only feebly, broadly concave between antennal tubercles; antennal tubercles very feeble, not armed apically; elytra more strongly widened behind middle, less noticeably dentate at apex; procoxae tumid before, not tuberculate; profemora robust, gradually clavate, not rugose on sides; fifth sternite one half longer than fourth, less deeply emarginate at apex, with a feeble triangular impression narrowed to the base; antennae as long as body, or a little shorter; scape much less robust, gradually clavate, shallowly grooved basally.

LENGTH 17.5-27 mm.; width 6.5-10.5 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil and Paraguay.

**BRAZIL:** ♂, 5 ♀; no locality data; [A.M.N.H.—♀; M.C.Z.—3 ♀; Minn. U.—♀; C.A.S.—♂]. ♂, 3 ♀; Itatiaya Mts., Southeastern Brazil, 1100 m., Feb. 26, 1931; [M.C.Z.]. 2 ♂, ♀; Vicosia, Minas Gerais, 1931; (Y. Mexia); [C.A.S.]. ♀; State of São Paulo; [C.U.]. ♂; São Paulo; [M.C.Z.]. ♂; São Paulo, S. P., Nov. 1-8, 1921; [C.A.S.]. ♀; Rio de Janeiro; [M.C.Z.]. 5 ♂, 4 ♀; Hansa Humboldt, Santa Catharina, Jan.-April; (A. Maler); [L. Lacey]. ♂; Rio de Janeiro, Mar. 3, 1921; [L. Lacey]. ♀; Rio Grande de Sul; [A.N.S.P.]. ♂; Esperito Santo; [A.N.S.P.].

**PARAGUAY:** ♀; San Bernardino; (K. Fiebrig); [U.S.N.M.].

**NO LOCALITY DATA:** ♂, 2 ♀; [A.N.S.P.]. 2 ♀; [A.M.N.H.]. ♂; [Minn. U.]. ♂; [M.C.Z.].

**Oncideres miniata** Thomson

PLATE XVI, FIGURE 2

*Oncideres miniata* Thomson, *Physis*, II, 1868, p. 88.

Differs from *O. dejeani* in its uniformly smaller size, elytra with a solid white fascia behind middle not punctate as in the preceding, apex with a large whitish spot, and the humeral angles are each entirely occupied by a large shining tubercle.

MALE. Elongate-ovate, robust, cylindrical, elytra subconvex; dark reddish-brown to piceous, elytra paler. Head covered with fulvous or ochraceous pubescence; eye margined posteriorly broadly with denser fulvous or ochraceous and narrowly with pale yellow; front vittate laterally with denser pubescence. Pronotum hoary-gray pubescent, with a fulvous or rufous-ochraceous band before middle, which is bordered posteriorly by three transverse, glabrous maculae, these often interconnected to form a broad line; the colored pubescence also occasionally forms maculae basally. Scutellum and elytra to basal quarter either hoary, pale yellowish, or fulvous; elytra then densely minutely irrorate to middle with whitish, a few scattered larger maculae; just behind middle an irregular, narrow solidly white band, posteriorly irrorate with whitish, less densely so than before middle, becoming coarser to apex where they usually coalesce to form a large spot; apical third each with about twelve to fifteen larger, rounded or irregularly-shaped, ochraceous-yellow to fulvous maculae. Beneath reddish-brown, rather densely, irregularly hoary-gray pubescent; mesepisterna entirely covered, base of metepisterna maculate, and sides of metasternum narrowly vittate, with from fulvous to rufous-ochraceous. Legs dark reddish-brown to piceous, hoary-gray pubescent, above tinged with fulvous or rufous-ochraceous. Antennae with proximal two segments piceous, remaining segments reddish-brown, paler distally; thinly clothed with gray pubescence, from fourth each segment slightly darker at apex.

Head above finely, densely punctate; front strongly concave between antennal tubercles, finely densely punctate, with scattered coarser punctures interspersed; genae transverse, feebly pubescent, rugosely punctate; eye with lower lobe oblong, about one and one-half times height of gena; antennal tubercles prominent produced at apex into short, but distinct, robust tooth, emarginate at its tip. Pronotum transverse, apex feebly wider than base; apical transverse sulcus nearly straight, wide, shallow, internal basal one rather deep, ending each side in a semi-foveate impression; disk at middle with three very transverse, feebly raised callosities, these sometimes nearly connecting; lateral tubercles feeble, terminating in a very short, obtuse process, base above, as in base of disk, with a very few punctate-granules. Scutellum transverse, sides nearly straight, oblique, apex very broadly rounded, or subtruncate. Elytra slightly widened behind middle, apices together broadly rounded, not dentate at suture; extreme base smooth, basal quarter very finely, densely granulate, thence to middle very closely, deeply punctate, behind middle to apex punctures gradually more shallow and obsolete; humeri feebly rounded, posterior angle with a single, large tubercle, the rest of its surface covered with very fine granules. Procoxae with a prominent, acute, conical tubercle internally; profemora rather abruptly clavate after middle, finely, transversely

rugose on basal two-thirds of anterior and posterior faces, other femora clavate. Fifth sternite one-half longer than fourth, apex emarginate. Antennae one and one-half to one and two-thirds length of body, beneath fimbriate distinctly on third and fourth segments, rest very sparsely so; scape robust, rather abruptly clavate from basal third, with two deep grooves externally and internally, rest of surface finely punctate; eleventh variable in proportionate length, equalling the two or three preceding segments.

**FEMALE.** Much more robust; head with front very broadly concave between antennal tubercles, which are less prominent and only feebly produced at apices; gena vertical, due to lengthening of entire head; elytra more distinctly widened behind middle; procoxae prominent, with a very feeble, obtuse tubercle anteriorly; profemora rather abruptly clavate from basal third, not rugose; fifth sternite nearly twice length of fourth, apex emarginate, disk deeply, triangularly impressed; antennae as long as or slightly longer than body, more densely fimbriate beneath; scape less robust, internally and externally with one or two feeble grooves.

LENGTH 15-19.5 mm.; width 4.5-7 mm.

*Type locality.*—Brazil.

*Distribution.*—Brazil and Paraguay.

**BRAZIL:** ♂, 4 ♀; Rio de Janeiro; [C.M.—♂, 3 ♀; M.C.Z.—♀]. 2 ♂; Santarem; [C.M.]. ♂; Nova Friburgo, Jan. 20; [M.C.Z.]. 5 ♂, 5 ♀; Hansa Humboldt, Santa Catharina, Dec.-Feb.; (A. Maller); [L. Lacey]. ♀; Vargema Alta, Esp. Santo, Oct. 1930; (A. Maller); [L. Lacey].

**PARAGUAY:** ♂; San Bernardino, Oct. 30; (K. Fiebrig); [U.S.N.M.].

### ***Oncideres castanea* Dillon and Dillon, spec. nov.**

PLATE XIV, FIGURE 12

Somewhat similar to *O. ocularis* in form and size, but is entirely different from it in maculation. Elytra are minutely irrorate with white, at base finely, densely granulate-punctate; pronotum with five rounded glabrous maculae; sterna beneath are broadly maculate with orange-buff. These characters amply distinguish this from all related forms.

**FEMALE.** Elongate-oblong, rather robust, cylindrical, elytra convex; reddish-brown, pronotum medially and humeri dark reddish-brown or fuscous. Head hoary-gray near occiput, rest orange-buff, the pubescence a little more concentrated behind eye and on lateral margins of front. Pronotum hoary-gray and orange-buff variegated, the latter color predominating, especially between the glabrous maculae; these are more or less rounded, the median one largest, the lateral ones smallest, arranged in an undulating line across middle. Scutellum sparsely orange-buff pubescent. Elytra thin, uniformly orange-buff pubescent, rather densely, irregularly irrorate with white, maculae vaguely defined, some rounded, others vermiculate. Body beneath reddish-brown, covered with hoary-gray pubescence; sides of thoraces broadly maculate with orange-buff, maculation especially visible on

mesevisterna, metepisterna, and metasternum laterally. Legs reddish-brown, some of the femora darker, thinly clothed with hoary-gray and ochraceous-buff pubescence. Antennae reddish-brown, scape darker; thinly covered with hoary-gray pubescence.

Head above minutely, rather densely punctate; front broadly, feebly concave between antennal tubercles, finely, densely punctate, with a large number of coarse punctures interspersed; genae vertical, nearly glabrous, finely, densely punctate, basally with coarse, rugose punctures; eye with lower lobe elongate-oblong, one and one-quarter times height of gena; antennal tubercles prominent, apically produced into a short, acute, toothlike horn. Pronotum distinctly transverse, slightly wider apically; apical transverse sulcus broad, shallow, basal one distinct only at middle, where it is posteriorly bordered by a low, cariniform elevation; disk with five rounded, glabrous tubercles, sometimes vaguely, transversely rugose between them; lateral tubercles small, obtuse, but distinct, sides before them transversely rugose. Scutellum transverse, sides straight, oblique, apex truncate. Elytra with sides parallel, apices together rounded; disk, except narrow, smooth, extreme base, finely, densely granulate-punctate, after basal quarter or third to apex, followed by coarse rather dense, deep punctures, which become a little finer apically, between these punctures are minute shallow, very dense ones; humeri rounded, entirely covered by a large, arcuate, low, glabrous tubercle, impressed at posterior angle. Procoxae large, with a very small, obtuse tubercle before, variable in its distinctness; femora short, robust, clavate, hind ones successively shorter, profemora finely rugose on posterior face. Fifth sternite one and one-half times length of fourth, apex emarginately truncate, with an elongate, triangular impression from apex to base. Antennae a little longer than body, distinctly fimbriate beneath on all segments; scape short, slender, slightly clavate, beneath flattened and, at base, strongly, transversely rugose.

LENGTH 15-17.4 mm.; width 4.6-5 mm.

*Holotype*.—Female; Rio de Janeiro, Brazil, Oct.; [C.M.].

*Paratype*.—Two females; same date; [C.M.].

### ***Oncideres pulchellus* Bates**

*Oncideres pulchellus* Bates Ann. Nat. Hist. (3), xvi, 1865, p. 178.

“Head and thorax same breadth; head ashy brown, with a streak down each side of front tawny; buccal organs and circuit of mouth, red. Antennae a little longer than body, dark brown. Thorax ashy brown, with three shining black tubercles in a triangle on disk, and two smaller ones on each side, the outermost of which is in the position of the ordinary lateral tubercle. Elytra cylindrical, obtuse behind, ashy brown, varied with a small number of equal-sized and equi-distant pale ashy spots, those over basal half covering large, rounded tubercles of small elevation, and those toward apex shallow impressions; the tubercles are not crowded near base or shoulder, but are widely dispersed. Body beneath and legs light brown; sides of breast with an ashy patch. Length 6.5 lines. ♀. Ega.” (Bates’ original description.)

**Oncideres minuta Thomson**

PLATE XIV, FIGURE 13

*Oncideres minuta* Thomson, *Physis*, II, 1868, p. 86.

Distinct from *O. castanea* in having the elytra much more sparsely maculate with white, the basal granules large and rounded, terminating suddenly in an oblique line which runs from basal third of suture to middle at sides; pronotum with each lateral pair of discal maculae coalescent.

FEMALE. Elongate-oblong, robust, cylindrical, elytra convex; dark reddish-brown to fuscous, densely covered with cinnamon pubescence. Head cinnamon and ochraceous pubescent, eye posteriorly margined with ochraceous; front almost glabrous, laterally vittate with ochraceous. Pronotum cinnamon pubescent, laterally at middle maculate with ochraceous, with five transverse oblong glabrous maculae, each set of lateral ones coalescent. Scutellum thinly cinnamon pubescent. Elytra cinnamon pubescent, basally tinged with ochraceous, basal half with a number of glabrous maculae, supplanted on apical half by rounded white ones, some larger, most of them minute, all well spaced. Body beneath light reddish-brown, thinly hoary-gray pubescent; entire sternum each side broadly vittate with ochraceous. Legs light reddish-brown, ochraceous pubescent. Antennae light reddish-brown, thinly cinnamon pubescent; scape reddish-brown.

Head above minutely, densely punctate; front broad and flat between antennal tubercles, finely, densely punctate, without any coarser punctures; genae transverse, glabrous, coarsely and rugosely punctate; eye with lower lobe elongate-oblong, nearly twice height of gena; antennal tubercles feebly elevated, unarmed. Pronotum strongly transverse, gradually widened from base; apical transverse sulcus distinct, sinuous, basal one deeper at middle, where it is posteriorly margined by a low cariniform elevation; disk with five transverse, feebly elevated tubercles; lateral tubercles indistinct, obtuse, sides before them not transversely rugose. Scutellum transverse, sides straight, oblique, apex broadly arcuate. Elytra with sides parallel, slightly widened behind middle, apices together rounded; disk, behind broad, smooth extreme base, with a number of large, rounded granules terminating suddenly in an oblique line, from basal third at suture to middle at sides, rest of disk very minutely, densely punctate; humeri rounded, entirely covered by a low, arcuate, glabrous tubercle, projecting slightly laterally. Procoxae large, tumid but not tuberculate internally before; femora robust, clavate, posterior ones successively shorter, profemora not rugose. Fifth sternite one and one-half times the length of fourth, deeply triangularly impressed apically, apex subtruncate. Antennae a little longer than body, sparsely, but distinctly, fimbriate to apex; scape elongate, slender, gradually clavate, beneath flattened, not rugose.

LENGTH 11.5 mm.; width 4 mm.

*Type locality*.—"Guiana".

NO LOCALITY DATA: ♀; Deyrolle Coll., [M.C.Z.].

**Oncideres macra Thomson**

*Oncideres macra* Thomson, Physis, II, 1868, p. 87.

"Elongate, lean, gray pubescent. Head dark yellow pilose; antennae basally black, then brown. Prothorax laterally distinctly armed, with many transverse carinules. Elytra elongate, at humerus black, basally black shining tuberculate, tubercles moderate and sparse, thence punctate, all over gray and ochraceous variegate; apices rounded. Sternum brown, towards sides white maculate; body beneath and legs brown, gray pubescent. Length 15 mm.; width 5 mm. Brazil." (Translation of original description.)

**Oncideres impluviata Germar**

PLATE XIV, FIGURE 14

*Lamia impluviata* Germar, Ins. Spec. Nov., 1842, p. 483.

*Oncideres impluviata* Germar, Lacordaire, Gen. Col., IX, 1872, p. 679. Müller, Kosmos, XIX, 1886, p. 38.

This is the first of a group of very similar appearing insects in which the elytra are in part gray-pubescent, and maculate with rounded fulvous or yellowish spots, sometimes arranged seriatly. The chief distinguishing character of this particular form is the sternal white macula being rather wide, oblique, confined to metasternum and chalky in its whiteness; and the elytra, moreover, lack a fascia.

MALE. Elongate-ovate, slender, cylindrical, elytra convex; dark reddish-brown, elytra slightly paler; covered with silvery-gray and dull orange-ochraceous pubescence. Head entirely variegated with dull orange-ochraceous and gray pubescence; eye posteriorly, and front laterally, narrowly margined with orange-ochraceous. Pronotum variegated with orange-ochraceous and silvery-gray; with scattered maculae of orange-ochraceous or yellowish-white, two near middle especially variable in color and sometimes ocellated with white; with five vague denuded maculae across middle. Scutellum thinly pubescent. Elytra uniformly but thinly clothed with silvery-gray pubescence, tinged at base with orange-ochraceous or pale yellowish; disk evenly sprinkled with numerous, rounded maculae of from pale maize-yellow to orange-buff, around thirty larger ones on each elytron, with minute ones interspersed, the size and density of maculae vary greatly in different individuals. Body beneath reddish-brown, abdomen paler, variegated with hoary gray and orange-ochraceous pubescence; metasternum laterally broadly and conspicuously maculate with dense white, the macula externally margined by the denuded, brown edge of the metasternum; side-pieces of meso- and metasterna thinly clothed with brown pubescence. Legs reddish-brown, femora darker; clothed with yellowish-gray and orange-ochraceous pubescence. Antennae reddish-brown, scape slightly darker; covered with dull ochraceous pubescence.

Head above minutely, densely punctate; front broadly, rather deeply concave between antennal tubercles, finely, densely punctate, with very few coarser punc-

tures intermingled; genae transverse, coarsely rugosely punctate; eye with lower lobe broadly oblong, a little more than twice height of gena; antennal tubercles slightly elevated, internally at apex produced into a short tooth. Pronotum transverse, apex distinctly wider than base; apical and basal transverse sulci distinct, the latter deeper at middle; disk with the five glabrous maculae not visibly elevated, before them distinctly and irregularly rugose; lateral tubercles broad, not strongly elevated, terminating in a short, blunt process. Scutellum slightly apicose, sides feebly areuate, apex subtruncate. Elytra with sides parallel, apices together rounded; extreme base narrowly smooth, thence disk with sparse, irregular-sized, prominent granules, smaller posteriorly, terminating rather abruptly at basal quarter, followed to apex by coarse, dense punctures; humeri broadly rounded, before posterior angle with a small tubercle. Procoxae armed before with a broad, obtuse tubercle, variable in its elevation; femora robust, clavate, profemora transversely rugose on posterior face. Fifth sternite only slightly longer than fourth, apex deeply emarginate. Antennae half again length of body, beneath entirely fringed with long hairs; scape long, rather slender, clavate from base, beneath flattened, transversely rugose at base.

FEMALE. Less slender; front between antennal tubercles only minutely concave and broader; antennal tubercles only feebly elevated, not armed; elytra slightly widened behind middle; procoxae tumid or feebly tuberculate before; profemora not rugose; fifth sternite half longer than fourth, apex subtruncate or emarginate, only feebly impressed; antennae slightly longer than body; scape more slender, not rugose beneath.

LENGTH 13-20 mm.; width 4-6 mm.

*Type locality*.—Brazil.

*Distribution*.—Southeastern Brazil.

BRAZIL: 5 ♀; no locality data; (Minn. U.—1; M.C.Z.—4). 4 ♂, 3 ♀; Rio de Janeiro; [C.M.]. ♂; Rio de Janeiro; (D. Bourget); [M.C.Z.]. 2 ♂, no locality data; (J. Melzer); [C.A.S.]. ♂; São Paulo, S.P., Dec. 20, 1923; [C.A.S.]. ♂; São Paulo, Jan.; [M.C.Z.]. ♂, ♀; Nova Friburgo; [M.C.Z.]. 2 ♂, 4 ♀; Hansa Humboldt, Santa Catharina, July, Oct.-Feb. (A. Maller); [L. Lacey]. 3 ♂, ♀; Cachoeirinha, Paraná, Nov. 1939; (A. Maller); [L. Lacey].

NO LOCALITY DATA: 3 ♂, ♀; [M.C.Z.].

### *Oncideres ocularis* Thomson

PLATE XIV, FIGURE 15

*Oncideres ocularis* Chevrolat, mss.

*Oncideres ocularis* Thomson, *Physis*, II, 1868, p. 82.

Closely related to *O. impluviata* but the sternal macula extends onto the middle of the prosternum; and the pronotal maculae are distinctly larger.

**MALE.** Elongate-ovate, rather slender, subcylindrical; elytra subconvex; light reddish-brown to dark reddish-brown or piceous; elytra slightly paler. Head with sparse ochre yellow or orangeish-ochraceous pubescence and posterior margin of eye and a vitta on each side of front deeper, sometimes nearly rufous-ochraceous; pronotum very sparsely grayish and ochre yellow pubescent, with a rather narrow transverse band of orange-ochraceous or rufous-ochraceous, above lateral tubercles with a short vitta of same color from base to transverse band; transverse band with five piceous or dark reddish-brown, rounded maculae; scutellum sparsely ochre yellow or orange-ochraceous pubescent, elytra with extreme base ochre yellow or orange-ochraceous, variegated with gray to basal quarter, thence to apex with thin, pale grayish pubescence, entire surface (except extreme base) with many small, round, yellow ochre maculae, more or less in rows and scattered in between these a number of very minute ones; basal quarter with a few large reddish-brown to piceous granules; beneath light to dark reddish-brown, with pale gray pubescence and many very small, scattered, glabrous patches; laterally from posternum to apex of metasternum with a rather broad white fascia, sternites each bordered on apex with yellowish; legs light to dark reddish-brown, thinly gray pubescent beneath, rufous-ochraceous above; antennae light to dark reddish-brown, paler apically, densely clothed with rather long rufous to orange-ochraceous pubescence.

Head above finely alutaceous; front very concave between antennal tubercles and very finely densely punctate, with a few large scattered punctures; genae slightly pubescent nearly scabrose; eye with lower lobe oblong-ovate about one-fourth longer than gena; antennal tubercles prominent with a short, robust, blunt horn apically which is directed upward. Pronotum transverse; apex wider than base; one apical and two basal sulci, the apical rather broad and moderately deep, inner basal narrow and deep, almost pit-like, either side of middle, outer basal rather feeble; at middle of disk with five rather prominent rounded tubercles, with the center one slightly more basal than rest; lateral tubercles broad at base, feebly raised and with a short, nearly obtuse process; base of disk and lateral tubercles with few punctate granules. Scutellum transverse, sides nearly straight, oblique, apex subtruncate or very broadly rounded. Elytra with sides nearly straight, tapering slightly to apex; apices together rounded; extreme base smooth, then with six to eight large rather well spaced granules on subgibbose area, thence to basal quarter with much smaller and very sparse granules; remainder of elytra with obsolete punctures; humeri rounded, posterior angle with a large tubercle and thence with a few smaller granules to about basal quarter laterally. Procoxae with a rather large, obtuse tubercle; profemora with sides nearly parallel only slightly narrowed at base, on anterior and posterior sides distinctly, transversely rugose to apex; mesofemora nearly parallel from middle; metafemora gradually clavate. Fifth sternite about one-fourth longer than fourth, only feebly emarginate apically. Antennae about one and two-thirds to one and one-half times length of body; scape robust, gradually clavate, on inner and outer sides with four or five moderately deep grooves, remainder of surface rather roughly, rugosely punctate.

**FEMALE.** More robust; elytra slightly widened behind middle; procoxae prominent but only very feebly, obtusely tubercled; profemora nearly parallel to middle then only slightly clavate, very feebly, transversely rugose, posteriorly and anteriorly; remaining femora gradually clavate; fifth sternite about one third longer than fourth, at apex emarginate and triangularly impressed to base; antennae as



long or slightly longer than body, scape a little less robust than male, only two or three feeble grooves internally and externally, remaining surface moderately, densely, punctate.

LENGTH 17.5-21 mm.; width 5.75-7.5 mm.

*Type locality*.—Brazil.

*Distribution*.—Southeastern Brazil to east-central Argentine.

BRAZIL: 2 ♂; no locality data; [M.C.Z.]. ♂, ♀; Nova Friburgo; [M.C.Z.]. ♂; São Paulo; [M.C.Z.]. ♀; Esperito Santo; [A.N.S.P.]. ♀; Minas Geraes; [A.N.S.P.]. 2 ♂, 3 ♀; Londrina, North Paraná, Heintal, 7000 m., Nov. 1934, Dec. 1935; [L. Lacey]. ♂; Cachocirinha, Paraná, Dec. 1939; (A. Maller); [L. Lacey].

ARGENTINA: ♀; Buenos Aires; [M.C.Z.].

### *Oncideres pectoralis* Thomson

PLATE XV, FIGURE 1

*Oncideres pectoralis* Chevrolat, mss.

*Oncideres pectoralis* Thomson, *Physis*, II, 1868, p. 83.

Like the two preceding species, but the elytra are finely granulate-punctate over whole surface, more densely so at base than *O. ocularis*; metasternum is narrowly maculate with buff-yellow or orange-buff.

MALE. Elongate-oblong, slender, cylindrical, elytra convex; orange or dark reddish-brown, head darker, pronotum medially, and humeri piceous; entirely pubescent. Head buff to buff-yellowish; eye posteriorly finely, front broadly laterally, margined with orange-buff. Pronotum buff-yellow to orange-buff pubescent, pubescence more concentrated and brighter in a band around the glabrous maculae and forming a macula each side near basal angle, the glabrous maculae five in number, large, transversely oval, except median one which is rounded and slightly smaller. Scutellum rather thinly buff-yellow pubescent. Elytra rather thinly but uniformly white or hoary gray pubescent, pubescence somewhat interrupted by the granulate-punctures, especially on basal two-thirds; basal smooth part apically margined and each disk with from twenty-five to thirty-five more or less large, rounded (only a very few smaller ones), well spaced maculae, buff-yellow to orange-buff. Body beneath orange-brown to dark reddish-brown, hoary-gray pubescent; metasternum laterally broadly vittate with buff-yellow or orange-buff; a vitta of gray-brown each side running from sides of prothorax (where it is more or less indistinct), across mesosternal and metasternal side pieces to sides of metacoxae, tapering apically. Legs dark reddish-brown or orange-brown, hoary-gray pubescent, above with orange-buff or buff-yellow pubescence. Antennae orange-brown to dark reddish-brown, scape darker; more or less orange-buff pubescent.

Head finely, densely punctate; front moderately but rather roughly punctate; gcnæ sparsely pubescent, densely, coarsely punctate, only slightly higher than wide; eye with lower lobe oblong, more than half again as high as gena; antennal tubercles

feebly elevated, unarmed. Pronotum subquadrate only one-fourth wider than long, feebly wider at apex than at base; apical transverse sulcus arcuate, interrupted broadly at middle, basal one irregular, deepest at middle, not bordered behind by a distinct elevation; disk with five glabrous, feebly elevated tubercles, lateral tubercle very feeble, placed just behind middle. Scutellum subquadrate sides straight, only slightly oblique, apex feebly and broadly arcuate. Elytra with sides parallel, apices together broadly rounded; disk entirely more or less densely, granulate-punctate, granules prominent on base, gradually diminishing in size and prominence to apex; humeri broadly arcuate, not prominent, covered by a feebly elevated, moderate sized, glabrous tubercle. Procoxae small, not tumid nor tuberculate; femora robust, clavate, short, metafemora more slender, profemora not rugose. Fifth sternite subequal in length to fourth, apex broadly emarginate. Antennae one-third longer than body, with many, moderately close-set, long, fringing hairs beneath from its base to apex; scape slender, elongate, gradually clavate, above more or less rugosely punctate, beneath distinctly flattened, rather rugose.

**FEMALE.** Head above strongly convex; genae much higher than wide, more finely and more densely punctate; eye with lower lobe subequal to gena in height; fifth sternite one half longer than fourth, apex broadly emarginate-truncate, with a deep triangular impression from apex almost to base; antennae slightly shorter than body; scape finely rugose beneath.

LENGTH 13-13.5 nun.; width 3.5-4 mm.

*Type locality.*—Brazil.

*Distribution.*—Southeastern Brazil.

**BRAZIL:** ♂; Hansa Humboldt, Santa Catharina, Nov., 1940; (A. Maller); [L. Lacey]. ♀; Cachoeirinha, Paraná, Oct., 1940; (A. Maller); [L. Lacey].

*Remarks.*—The female was paler in body coloration as well as in the color of the pubescence. As only a single specimen of each sex was available, it was impossible to decide whether this is a sexual, geographical, or individual variation. The authors are inclined to believe it to be the latter.

### ***Oncideres polychroma* Dillon and Dillon, spec. nov.**

PLATE XV, FIGURE 2

Resembles *O. ocularis* very closely, including the sternal macula on each side of body; the elytral maculae, however, are distinctly seriate, the entire disk has minute, glabrous maculae, and there is an indistinct, gray fascia medially; the extreme base of the elytra also is hoary gray, not ochre-yellow or orange-ochraceous.

**MALE.** Elongate-ovate, rather robust, cylindrical, elytra convex; piceous, elytra slightly paler on apical two-thirds, densely pubescent. Head thinly covered with hoary-gray and ochraceous-buff pubescence; eye posteriorly margined with ochra-

eous-buff and orange-ochraceous, posteriorly broadly, anteriorly very narrowly, so; front same as head above, narrowly vittate each side with ochraceous-buff. Pronotum densely covered by ochraceous-buff and hoary-gray pubescence, the former color strongly predominating, apical margin fringed heavily with pubescence that is between buff-yellow and orange-buff in color; across disk there are five strongly transverse, subequal glabrous maculae, in a nearly straight line. Scutellum moderately densely buff-yellow pubescent. Elytra at extreme base hoary gray, more or less varied with dark buff-yellow, rest of basal quarter covered with light brown pubescence variegated somewhat with silvery-gray, thence to apex silvery-gray, behind apical third a narrow, vague band of light brown, dividing the gray into two broad bands; entire disk with rather large, rounded slightly elevated maculae, between buff-yellow and orange-buff in color, more or less arranged in irregular rows, placed a little more closely on apical third, smaller ones almost entirely wanting, but in between the maculae are scattered hairs of the same color, which occasionally are clustered; intermingled over entire surface are sparse, irregular-sized, rounded, glabrous maculae, replaced at base by large granules. Body beneath dark reddish-brown, clothed irregularly with white pubescence, sterna variegated, abdominal sternites at apices margined with yellow-buff, or ochraceous-buff; on each side of thorax, a broad vitta of purer white, attenuate posteriorly. Legs dark reddish-brown, ochraceous-buff and hoary-gray pubescent. Antennae reddish-brown, paler distally, scape piceous; hoary-gray and grayish-brown pubescent.

Head above minutely punctate; front finely, uniformly punctate, and with a few slightly larger punctures; genae subquadrate, thinly pubescent, finely, densely, and coarsely, rugosely, punctate; eye with lower lobe more or less oblong, somewhat narrowed below, one-third again as high as gena; antennal tubercles slightly prominent, at apex armed with a broad, short tooth. Pronotum strongly transverse, sides widened at middle, narrower at base than at apex; apical transverse sulcus shallow but distinct, strongly sinuate, basal sulcus straight, not notably deeper at middle, just before basal marginal carinule a very short, deep sulcus medially; disk somewhat tumid transversely, the glabrous markings slightly elevated; lateral tubercles prominent, conical, acute. Scutellum transverse; sides straight, oblique; apex broadly rounded. Elytra with sides tapering to middle, thence subparallel, apices together rounded; at extreme base smooth, thence with strong, prominent granules, more or less arranged in two transverse rows, followed by small sparse granulate punctures to apex, gradually smaller behind; humeri strongly rounded, at posterior angle with a small, feebly elevated tubercle. Procoxae armed before with moderate-sized, conical tubercles; profemora strongly thickened at basal fifth, tapering to apex, which is subequal to base, posterior and anterior faces transversely rugose on basal half, other femora robust, clavate. Fifth sternite slightly longer than fourth, broadly emarginate at apex. Antennae half again as long as body, finely fimbriate beneath, from fifth segment with only a few hairs each; scape rather slender, gradually clavate from base, beneath proximally transversely grooved, thence to apex rugose, above finely, densely, and coarsely, sparsely punctate.

LENGTH 15 mm.; width 5 mm.

*Holotype*.—Male; Chapada, Brazil, "highland", March; [C.M.].

**Oncideres modesta** Dillon and Dillon, spec. nov.

## PLATE XV, FIGURE 3

Similar to *O. guttulata* but the elytra are more gray pubescent, the basal portion is not dark, and the granulation is very sparse; the pronotal maculae are more round and more prominent; the sternal vittae are chalky-white, extending from middle of sides of prosternum to apex of metasternum.

**MALE.** Elongate-ovate, rather robust, subcylindrical; elytra subconvex; dark reddish-brown to fuscous, elytra paler. Head above thinly gray and ochraceous variegated; front ochraceous, with a broad vitta either side of almost orange ochraceous and eye posteriorly margined with same color. Pronotum thinly gray and ochraceous variegated, at center of disk from base to middle a longitudinal white vitta which encircles median tubercle and a transverse ochraceous vitta interrupted by transverse row of tubercles and by longitudinal vitta. Scutellum thinly ochraceous. Base of elytra gray and ochraceous variegated, thence grayish-brown to basal third, and from there to behind middle with a broad band of thin white pubescence and to apex ochraceous and gray variegated, entire disk of each elytron with scattered ochre-yellow, small maculae, interspersed particularly on apical third with very minute ones, just behind the white band is a rather feebly pubescent, almost glabrous space giving the appearance of a darker band. Beneath reddish-brown, with very thin, irregular white pubescence, a dense white vitta each side from pro- to metasternum, much wider on metasternum, sternites fringed apically with pale ochre yellow. Legs dark reddish-brown, beneath grayish, above ochraceous. Antennae with scape dark reddish-brown to piceous, remaining segments paler; gray, above yellowish gray pubescent.

Head above finely, densely punctate; front finely, densely punctate, with scattered, coarse punctures, sometimes feebly rugose, very concave between antennal tubercles; genae rugose, slightly pubescent; eye oblong, equal or only very slightly longer than gena. Pronotum transverse; apex slightly wider than base, one apical and two basal sulci, apical broad curved, internal basal narrow, deep and almost foveate just above lateral tubercles; at middle with five tubercles in transverse row, all more or less transverse, three middle ones elevated, center one smallest; lateral tubercles broad, feebly elevated, with a short, robust, blunt process. Scutellum transverse, sides feebly arcuate, apex broadly rounded. Elytra feebly widened behind middle, then rounded to apices which are together rounded; extreme base smooth then to basal fifth with six to ten moderate sized, well spaced granules which become very feeble and punctate at basal third, from thence to apex coarsely, but not densely punctate, punctures more obsolete apically; humeri rounded, with a large tubercle at posterior angle and with a few moderate-sized granules scattered over surface laterally behind tubercle. Procoxae prominent with a very broad obtuse tubercle; profemora, wider apically, sides nearly parallel on basal half, transversely rugose anteriorly and posteriorly almost full length, remaining femora normally clavate. Fifth sternite about one-fourth longer than fourth, emarginate apically. Antennae one and one-half to one and two-thirds body length; scape robust, gradually clavate, with three or four deep grooves internally and externally

at base, remaining surface moderately, densely punctate, and feebly rugose. Tarsi and tibiae nearly equal, profemora longer.

**FEMALE.** More robust, feebly convex between antennal tubercles; elytra distinctly wider behind middle; procoxae feebly prominent and with a very feeble obtuse tubercle; profemora robust, clavate gradually beyond basal third; fifth sternite about one-half longer than fourth, at apex emarginate and triangularly impressed to base.

LENGTH 14.5 mm.; width 4.5 mm.

*Holotype*.—Male; Santarem, Brazil; [C.M.].

*Allotype*.—Female; Brazil, "from J. Thomson coll."; [A.N.S.P.].

*Paratypes*.—Two females; no locality data; [Minn. U.]. Two females; Brazil; [M.C.Z.]. Male; Nova Friburgo, Brazil; [M.C.Z.].

### *Oncideres guttulata* Thomson

PLATE XV, FIGURE 4

*Oncideres guttulata* Chevrolat, mss.

*Oncideres guttulata* Thomson, *Physis*, 11, 1868, p. 84.

This, the last member of its group, is distinguished by having a fairly distinct elytral fascia, the elytra are dark basally and apically, the glabrous maculae minute, the granules are moderate sized and not dense; pronotal maculae are small and more or less transverse; the body beneath without distinct maculation.

**MALE.** Elongate-oblong, rather robust, cylindrical, elytra convex; orange-brown to reddish-brown, head, middle of pronotum, and elytral granules darker. Head above thinly hoary-gray pubescent, often variegated with brown or orange-buff; eye posteriorly, front laterally, margined narrowly with orange-buff. Pronotum thinly hoary-gray pubescent, apical margin fringed, disk across middle maculate with various shades of buff, from pale to orange hues, the discal median maculae often ocellated with white, disk across middle also with five, small, transverse, oval, glabrous maculae, these well separated and in a feebly undulating line. Scutellum sparsely hoary-gray pubescent, often tinged with various shades of yellowish. Elytra at extreme base hoary, tinged with yellowish, rest of disk covered with sparse, silvery-gray pubescence, somewhat denser from basal quarter to behind middle to form a more or less distinct fascia, basal quarter and sometimes a vague band at apical third grayish-brown or brown; entire disk maculate with densely pubescent spots, varying between chrome yellow and deep chrome in color, sometimes as pale as Naples yellow, these maculae uniform in size, well-separated, more or less arranged in rows, somewhat denser on apical third, scattered among them are small, rounded, unevenly distributed, glabrous spots. Body beneath dark reddish-brown, sparsely and unevenly clothed with hoary pubescence, irregularly variegated with orangeish or yellowish, but without distinct maculation; abdominal sternites margined apically with yellowish. Legs reddish-brown, thinly hoary and yellowish pubescent. An-

tennae pale reddish-brown, scape fuscous; thinly covered with short grayish pubescence.

Head above minutely, densely, punctate; front shallowly concave between antennal tubercles, finely and densely punctate, with coarse punctures interspersed, varying in their density; genae slightly transverse, thinly pubescent, coarsely and rugosely punctate; eye with lower lobe broadly oblong, one-third to one-half higher than gena; antennal tubercles prominent, terminating at apex in a short, obtuse or subacute, tooth. Pronotum strongly transverse, apex wider than base, sides widened at middle; apical transverse sulcus broad, shallow, sinuate medially, basal one deep, areolate; disk indistinctly, transversely rugose, the glabrous maculae elevated; lateral tubercles broad, prominent, obtusely conical. Scutellum transverse, sides straight, oblique, apex truncate. Elytra with sides subparallel, apices together rounded; extreme base smooth, thence with a number of small, prominent, usually conical granules, varying greatly in density, usually dense, especially on gibbous portion, from basal quarter to middle gradually evanescent, followed by coarse, sparse, deep punctures, finer apically; humeri strongly arcuate, at posterior angle with a prominent, broad tubercle. Procoxae armed before with a large, conical tubercle; profemora suddenly widened near base, parallel-sided almost to apex, then slightly narrowed, both anterior and posterior face transversely rugose on basal two-thirds, other femora much shorter, clavate, robust. Fifth sternite slightly longer than fourth, apex bilobedly emarginate. Antennae one-third again as long as body, sparsely fringed beneath to apex; scape rather robust, gradually clavate from base, beneath coarsely rugose on basal two-thirds.

FEMALE. More robust; front more broadly and feebly concave between antennal tubercles, which are only slightly elevated, unarmed at apices; gena slightly vertical; eye subequal to gena in height, more narrowly oblong; procoxae obtusely tuberculate anteriorly; profemora clavate, robust, not transversely rugose; fifth sternite nearly twice length of fourth, apex subtruncate, triangularly impressed towards apex; antennae only slightly longer than body; scape proportionately shorter, a little more slender, rugose beneath only at very base.

LENGTH 12-16 mm.; width 4-5 mm.

*Type locality.*—Montevideo.

*Distribution.*—Uruguay and the northern half of Argentina.

ARGENTINA: 4 ♂, 9 ♀, Cordova; (Davis); [M.C.Z.]. 2 ♀, Cordova, 1926, bred from *Acassia alvata*; (Kisliuk); [U.S.N.M.]. ♂, ♀; Santiago del Estero, Rio Sal Ado; (Wagner); [U.S.N.M.]. ♀; Prov. de la Rioja; [U.S.N.M.]. 2 ♂, ♀; Concepcion del Uruguay; (W. B. Barrows); [U.S.N.M.].

URUGUAY: 2 ♂, ♀; Montevideo, 1846; [M.C.Z.].

BRAZIL: ♂, ♀; no locality data; [M.C.Z.]. ♂; Nova Friburgo [M.C.Z.].

### *Oncideres stillata* Aurivillius

*Oncideres stillata* Aurivillius, Ent. Tidskrift, xxv, 1904, p. 208.

"Small, cylindrical, ashy-tomentose; front subquadrate, fulvo-tomentose, a large fuscous macula each side below antennae; antennae fuscous and fusco-tomentose, beneath ciliate, scape short, bases broadly distant. Prothorax transverse,

cylindrical, base smoothly constricted, each side with a very small black tubercle, above fulvo-tomentose and with five denuded black maculae. Scutellum ashy-pubescent. Elytra cylindrical, ashy pubescent, at base broadly blackish, more or less nude and with rather dense, small, shining granules; much beyond base and behind fascia consperse with fulvous spots (about thirty on each); to apex with strong, sparse, impressed nude points. Body beneath entirely ashy-tomentose; legs fuscous, basal part of femora fulvous. Length 11 mm. Bolivia; Tatarenda. 1 example in Mus. Holmiae.

"From the closely related *O. guttulata* Thomson, it is distinguished by the smaller, weakly armed pronotum, by the elytra basally with smaller granules, and with very distinct but distant punctures to the apices, by the femora broadly reddened at base, and especially by the broader front."

The above is a translation of the original description.

### **Oncideres rhodosticta** Bates

PLATE XV, FIGURE 5

*Oncideres rhodosticta* Bates, Biol. Centr.-Amer., Col., v, suppl., 1885, p. 365. Linsley, Journ. Econ. Ent., xxxiii, 1940, p. 562. Dillon and Dillon, Sci. Publ. Reading Pub. Mus., v, 1945, p. xv.

*Oncideres putator* Horn (non Thomson), Trans. Amer. Ent. Soc., xii, 1883, p. 195. Howard, U. S. Dept. Agr., Div. Ent., Bull. 22, n. s., 1900, p. 94. Schaeffer, Can. Ent., xxxviii, 1906, p. 19.

*Oncideres cingulatus* Hamilton (non Say.), Trans. Amer. Ent. Soc., xxiii, 1896, p. 141 (pars).

*Oncideres trinodata* Casey, Mem. Col., iv, 1913, p. 352.

*Oncideres* sp. Craighead, Can. Dept. Agr. Bull., 17, n. s., 1923, p. 132.

*Oncideres pustulatus* Essig (non Leconte), Ins. West. N. A., 1926, p. 460, f. 368.

Distinguished from all other North American members of the group by the elytral white median fascia being distinctly punctate; the disk of the elytra entirely covered with small, rounded, fulvous maculae, with dark brown pubescence on basal quarter; and the pronotal maculae, especially the median one, are large and more or less rounded.

MALE. Elongate-oblong, robust, cylindrical; piceous or black, shining. Head brown and hoary variegated above, between antennal tubercles fulvous or ochraceous; front with scattered white pubescence and a very narrow vitta of fulvous or ochraceous either side. Pronotum sparsely clothed with white pubescence, a more or less distinct transverse band at apical third of fulvous, laterally and basally with patches of fulvous pubescence, fringed apically with light fulvous, across middle a sinuate band of five rounded glabrous maculae, very variable in size. Scutellum with sparse, grayish-brown pubescence. Elytra rather thinly covered with white pubescence with the exception of two narrow bands of sparse grayish-brown pubescence, one on basal third and one just behind middle; median white fascia distinctly

punctate; entire surface with small, round spots of fulvous pubescence, these more or less ringed with white. Beneath black, with dense, white pubescence and with scattered glabrous and pale fulvous patches interspersed. Antennae and legs black; antennae densely covered (except basal segments which are sparsely covered) with white pubescence; legs not so densely covered with patches of white, grayish-brown, and fulvous pubescence.

Head above and on front densely, finely punctate, and with scattered, coarse, deep punctures; front quadrate, with a broad, curved sulcus above epistoma; eye with lower lobe oblong, nearly twice genal height; antennal tubercles rather small, slightly prominent, unarmed. Pronotum transverse, slightly narrowed behind lateral tubercles; apical and basal transverse sulci wide and curved; disk with three small, round, glabrous callosities, one at middle and one either side of middle placed more apically, remainder of disk with large, sparse, coarse punctures, these sometimes setigerous; lateral tubercles small, but distinct. Scutellum transverse, sides almost straight, base very broadly rounded, entire surface rather sparsely punctate. Elytra very slightly narrowed before middle, thence rounded to apices, which are together broadly rounded; entire surface minutely alutaceous, base rather finely, densely granulate, thence with coarse, deep punctures, becoming finer apically; humeri slightly prominent, anterior margin rounded, the angle granulate. Procoxae very broadly, distinctly tubercled anteriorly; femora robust, clavate, profemora very robust, subcylindrical, transversely rugose on posterior and anterior faces basally. Fifth sternite slightly longer than fourth, apex distinctly emarginate. Antennae one and one-half to one and three-quarters times body length, slightly fringed to apex, more sparsely so distally; scape robust, gradually clavate, beneath at base coarsely rugose; third segment slightly longer than first, rest subequal; eleventh strongly elongate, acicular.

**FEMALE.** Slightly more robust than male; front widened above; eye subequal to gena in height; antennal tubercles feeble, more widely separated; procoxae unarmed; profemora clavate, rugose only on base of posterior face; fifth sternite twice length of fourth, apex narrowly emarginate, with a deep, triangular impression at middle; antennae as long as body, scape slender, not rugose, segments from third gradually shorter.

LENGTH 11.6-16 mm.; width 3.5-5.5 mm.

*Type locality.*—Lerdo, Mexico.

*Distribution.*—Southwestern states into Mexico.

ARIZONA: All over state (136 specimens); on mesquite, *Prosopis juliflora*.

NEW MEXICO: ♀; Organ Mts., Aug. 29, 1940; (D. and J. N. Knull); [Ohio S. U.].

TEXAS: All over central and western parts of state (40 specimens).

## Oncideres quercus Skinner

PLATE XV, FIGURE 6

*Oncideres quercus* Skinner, Ent. News, xvi, 1905, p. 291. Schaeffer, Can. Ent., xxxviii, 1906, p. 19. Beyer, Journ. N. Y. Ent. Soc., xvi, 1908, p. 32. Casey, Mem. Col., iv, 1913, p. 352. Brisley and Channel, Journ. Econ. Ent., xvii,



1924, p. 159. Essig, *Ins. West. N. A.*, 1926, p. 460. Linsley, *Journ. Econ. Ent.*, xxxiii, 1940, p. 562. Dillon and Dillon, *Sci. Publ. Reading Pub. Mus.*, v, 1945, p. xv.

**MALE.** Elongate-oblong, rather slender, cylindrical, elytra subdepressed; head and pronotum dark reddish-brown to fuscous, elytra slightly paler. Head on occiput with white and fulvous hairs interspersed, between antennal tubercles fulvous; eyes margined with bright fulvous; front white, margined each side with a bright fulvous vitta. Pronotum rather thinly white pubescent, fringed apically with bright fulvous, at center occasionally with an indistinct glabrous macula. Scutellum with sparse bright tawny pubescence, the margins sometimes brownish. Elytra at extreme base white pubescent, basal quarter with very sparse bright tawny pubescence, which is concentrated some places into small round spots; a lateral band of brown on apical two-thirds interrupted by a number of fulvous maculae, which extend posteriorly along lateral edge to apex; remainder of surface densely covered with white pubescence which is concentrated in places to form a few, scattered, round spots. Beneath dark reddish-brown, abdomen usually lighter; densely covered with whitish tomentum, laterally on pro- and mesosternal side-pieces and on metepisterna basally with bright fulvous pubescence. Antennae fuscous, apically sometimes lighter; densely whitish pubescent to apex. Legs dark reddish-brown, with dense white and fulvous pubescence.

Head above and on front densely, finely punctate, with a few scattered, coarse, deep punctures interspersed; front slightly longer than wide; genae slightly higher than wide, sparsely, minutely punctate; eye with lower lobe slightly oblong, strongly convex, slightly exceeding genae in height; antennal tubercles rather robust, prominent, unarmed at apex. Pronotum feebly transverse, narrower behind lateral tubercles than before; apical and transverse sulci broad, deep and arcuate; disk at middle with a feeble, sometimes glabrous callosity, apical to which are several fine transverse carinae, remainder of disk feebly, transversely rugose, with sparse, fine punctures apically and at base; lateral tubercles small, acute, distinct, bases setigerously punctate. Scutellum feebly transverse at base, sides nearly straight, oblique, apex very broadly rounded. Elytra feebly narrowed to before middle, then widened posteriorly; apices together rounded; disk at base rather coarsely, irregularly punctate, only a few punctures granulate, granules distinct towards humeri, punctures gradually finer apically; humeri slightly prominent, anterior margin arcuate, feebly oblique, angle with several granules. Prosternum gradually widened behind middle. Procoxae with a small, obtuse tubercle anteriorly; femora clavate apically, profemora robust, only slightly clavate, transversely rugose posteriorly. Fifth sternite slightly longer than fourth, apex broadly, strongly emarginate, disk slightly impressed. Antennae one and one-half times body length, the eighth segment attaining the elytral apex; fimbriate beneath from base to apex with long shaggy setae; scape shaggy, entirely covered with sparse setae, slightly rugose, clavate from base, rugosely punctate; third segment equal to first, rest subequal, eleventh a little longer.

**FEMALE.** Broadly concave between antennal tubercles, broader than in male; eye with lower lobe slightly shorter than gena; antennal tubercles less prominent, smaller in size; procoxae with a very feeble tubercle; profemora strongly clavate, not thickened at base, not rugose; fifth sternite slightly longer than fourth, apex deeply emarginate, disk with a deep, triangular impression at middle extending

from base to apex; antennae only very slightly longer than body, segments from fourth gradually decreasing in length.

LENGTH 13-15 mm.; width 4.2-4.8 mm.

*Type*.—In Academy of Natural Sciences of Philadelphia.

*Type locality*.—Carr Canyon, Huachuca Mts., Cochise Co., Arizona.

*Distribution*.—Arizona.

ARIZONA: 2 ♀; no locality data; [U.S.N.M.]. ♂; Huchau Mt., Miller Canyon, July 19, 1905; (H. A. Wenzel); [R.P.M.]. ♀; Yavapai Co., Sept. 2; (O. Buckholz); [A.N.S.P.]. 2 ♂; Carr Canyon, Huachuca, Cochise Co., Aug., 1905; (Skinner); [A.N.S.P.]. ♂, 11 ♀; Parmerlee, Cochise Co., Aug.; [U.S.N.M.—♂, 9 ♀; L. Lacey—2 ♀]. ♀; Cochise Co.; [U.S.N.M.]. ♂; Tucson; [U.S.N.M.]. ♂; Base of Penal Mts.; (Parker); [Mich. U.]. ♂, ♀; Chirichaua Mts.; [U.S.N.M.—♀; Ohio S. U.—♂]. 17 ♂, 10 ♀; Huachuca Mts., Aug.-Sept.; [A.M.N.H.—2 ♂, 2 ♀; L. Lacey—3 ♂, ♀; Ohio S. U.—♀; U.S.N.M.—9 ♂, 4 ♀; A.N.S.P.—3 ♂, 2 ♀].

## Oncideres cingulata Say

PLATE XV, FIGURE 7

*Saperda cingulata* Say, Journ. Acad. Nat. Sci. Phila., v, 1826, p. 272.

*Oncideres cingulata* Say. Haldeman, Trans. Am. Phil. Soc., (2), x, 1847, p. 52. LeConte, Journ. Acad. Nat. Sci. Phila., (2), II, 1852, p. 165. Walsh and Riley, Am. Ent., 1, 1868, p. 76-77, f. 66. Riley, Am. Ent. III, 1880, p. 297, f. 155-56. Horn, Trans. Am. Ent. Soc., XII, 1885, p. 195. Hubbard, Ins. aff. Orange, 1885, pp. 128-129, f. 49-50. Packard, 5th Rep. U. S. Ent. Com., 1890, p. 288-289, f. 113-114. Scheffer, Insect Life, VII, 1895, p. 345. Felt, N. Y. State Mus., Mem. VIII (1), 1905, p. 271-274. Schaeffer, Can. Ent., XXXVIII, 1906, p. 19. Gill, U. S. Dept. Agr., Farm Bull. no. 843, 1917, p. 42-47, f. 53-57. Craighead, Can. Dept. Agr., Bull. 27 (n.s.), 1923, p. 131, pls. 2, 13, 31, 32. Leiby, Bull. N. C. Dept. Agr., 1925, p. 52-56, f. 50-54. Moznette, Bissell, and Adair, U. S. Dept. Agr., Farm Bull., no. 1654, 1931, p. 49-53, f. 62-66. Linsley, Journ. Econ. Ent., XXXIII, p. 561. Dillon and Dillon, Sci. Publ. Reading Public Mus., v, 1945, p. xv.

*Oncideres texana* Herrick (non Horn), Journ. N. Y. Ent. Soc., x, 1902, p. 15. Herrick, Miss. Agr. Exp. Sta. Bull. no. 86, 1904, p. 3-10, f. 1-5. Girault, Ent. News, XXI, 1910, p. 226-228; Bitsing, Journ. Econ. Ent., IX, 1916, p. 110-115.

*Oncideres cingulatus pallascens* Casey, Mem. Col., IV, 1913, p. 353.

*Oncideres praecidens* Casey, Mem. Col., IV, 1913, p. 354.

*Oncideres texana* Horn, Trans. Am. Ent. Soc., XII, 1885, p. 195. Hamilton, Trans. Am. Ent. Soc., XXIII, 1896, p. 140. Schaeffer, Can. Ent., XXXVIII, 1906, p. 19. Casey, Mem. Col., IV, 1913, p. 353. Linsley and Martin, Ent. News, XLIV, 1933, p. 183. Linsley, Journ. Econ. Ent., XXXIII, 1940, p. 562.

*Oncideres subtropicus* Casey, Mem. Col., IV, 1913, p. 353.

**MALE.** Elongate-oblong, robust, subcylindrical, elytra convex; reddish-brown. Head above sparsely covered with pale to deep fulvous pubescence, sometimes variegated slightly with pale gray; front with white and fulvous pubescence, the fulvous more profuse, longer. Pronotum more densely covered with longer white pubescence variegated usually with fulvous; apex with a fulvous fringe. Scutellum fulvous pubescent, with a narrow glabrous area medially. Elytra with basal fifth sparsely brown pubescent, at middle with a broad fascia of silvery-gray, the posterior border of which has about three dentations, apical third brown pubescent, towards apex strongly variegated with silvery-gray; entire disk with small, scattered, round spots of fulvous pubescence, except laterally on fascia the dots are usually silvery-gray. Beneath lighter reddish-brown, with dense, long, white pubescence, which is usually interrupted by small, irregular patches of tawny pubescence on abdomen; mesepimera and mesepisterna usually variegated with brown and fulvous. Legs and antennae light to dark reddish-brown, covered with sparse, fine, white pubescence with a few fulvous hairs interspersed. Antennae with scape dark reddish-brown, remaining segments paler; scape thinly clothed with silvery-gray, here and there a fulvous hair interspersed, from third segment with thin silvery-gray pubescence, apical quarters with dark brown pubescence mixed with gray.

Head above finely, densely punctate, with few coarse punctures interspersed; front densely, finely punctate, with few sparse, coarse punctures interspersed, narrowed below eyes; genae transverse, feebly pubescent, widened apically, finely, transversely rugose; eye with lower lobe shortly oblong, slightly longer than gena. Antennae long, one and one-half times body length; scape robust, at base with two or three deep grooves internally and externally, then densely punctate, slightly fimbriate its full length. Pronotum transverse, sides feebly arcuate, apex and base subequal; apical transverse sulcus broad, shallow, curved, basal one rather deep; on disk just behind middle a feebly raised median tubercle and either side of this a small, oblique tubercle; lateral tubercles feeble, not spined; entire disk densely, finely punctate and usually finely, transversely rugose. Scutellum transverse, sides straight, oblique, apex broadly rounded. Elytra with sides slightly narrowed before middle, then widening slightly and arcuate to apices which are together rounded; extreme base smooth, distinctly, densely granulate-punctate on basal third; humeri prominent, anterior margin arcuate, entire surface rugose, then coarsely punctate to apex. Fifth sternite about one-half as long as fourth, feebly emarginate apically. Procoxae globose; profemora gradually clavate, rugose on all four sides to middle, remaining femora more abruptly clavate; protarsi feebly dilated.

**FEMALE.** More robust, less attenuate; antennae only about one-fourth longer than body; fifth sternite deeply, broadly, triangularly impressed at apex, apex subtruncate; profemora only very feebly transversely rugose apically.

LENGTH 9-16.5 mm.; width 3-5.2 mm.

*Types.*—Probably lost (*cingulata*); lectotype (*texana*) in A.N.S.P.; holotypes of *pallescens*, *praecidens*, and *subtropicus* in U.S.N.M.

*Type locality.*—Eastern North America (*cingulata*); New York (*pallescens*); Southern Pines, N. C. (*praecidens*); Brownsville, Texas (*subtropicus*); Texas (*texanus*).

*Distribution.*—In a broad belt from Connecticut south and west to Texas, into Mexico.

CONNECTICUT: 6 ♂, 7 ♀; Lynn, Aug.-Sept., 1918; (Champlain); [U.S.N.M.]. ♀; Lynn, reared; (W. S. Fisher); [U.S.N.M.]. 2 ♂; Brookfield, July 27; [A.M.N.H.].

NEW YORK: 12 ♂, 7 ♀; no locality data; [R.P.M.; A.N.S.P.; L. Lacey; C.M.; A.M.N.H.; U.S.N.M.]. 2 ♀; Long Island; [U.S.N.M.; L. Lacey]. ♂; Wyandaneh, L. I., Sept. 13, 1904; (F. M. Schott); [C.M.]. 3 ♂, ♀; Jamaica; [U.S.N.M.]. ♀; New Windsor; [U.S.N.M.]. 2 ♂, 2 ♀; Pelham, Aug.-Sept.; [L. Lacey]. ♂, ♀; Staten Island; [A.M.N.H.]. ♀; Westbury, reared from *Hicoria*, Sept. 2, 1916; [U.S.N.M.]. 2 ♀; Nyack; [A.M.N.H.]. ♂, ♀; Bronx Park, Aug. 31, 1894; [A.M.N.H.].

PENNSYLVANIA: All over state (44 specimens).

NEW JERSEY: 6 ♂, 7 ♀; no locality data; [A.N.S.P.; U.S.N.M.; A.M.N.H.]. ♀; Lakehurst, June 5; (A. K. Wyatt); [Mich. U.]. ♀; Fort Lee; [A.M.N.H.]. ♂; Englewood, Sept. 6, 1930; (E. Lerch); [L. Lacey]. ♂; Riverton, Sept. 25; [U.S.N.M.]. 10 ♂, 7 ♀; Chester, Aug.-Sept.; [A.N.M.H.].

DELAWARE: ♀; no locality data; [A.N.S.P.].

MARYLAND: 13 ♂, ♀; Plummer's Isl., Sept.; (Barber & Schwarz); [U.S.N.M.]. ♀; Solomon's Isl. Oct. 12, 1930; (H. S. Barber); [U.S.N.M.]. 2 ♀; Glenn Echo, June 1922; (J. C. Bridwell); [U.S.N.M.].

VIRGINIA: ♂; Hot Springs, Aug. 11, 1916, at light; (Hebard); [A.N.S.P.]. ♂; Black Pond, Dec. 1, 1929; (H. S. Barker); [U.S.N.M.]. 3 ♂, 3 ♀; Norfolk, Sept.-Oct., eating pecan and hickory; [U.S.N.M.]. ♀; Virginia Beach, Nov. 11, 1917; [U.S.N.M.]. ♀; Petersburg, Oct. 8, 1912, on pecan; (W. B. Wood); [U.S.N.M.]. ♀; Fredericksburg, Sept. 24, 1912; [U.S.N.M.]. ♀; Fall's Church, Aug. 13, 1917; (A. Champlain); [U.S.N.M.].

DISTRICT OF COLUMBIA: no locality data; [U.S.N.M.]. 4 ♂, ♀; Washington, Aug.; [U.S.N.M.]. ♀; Rock Creek Park, Oct. 10, 1932; (E. A. Chapin); [U.S.N.M.].

NORTH CAROLINA: 2 ♂, 3 ♀; no locality data; [C.U.—♀; U.S.N.M.—2 ♂, 2 ♀]. ♀; Raleigh, Sept. 14, 1910; [C.M.]. ♀; West Raleigh, bred from pecan; [U.S.N.M.]. ♂; Tryon, July 3, 1905, on *Hicoria*; (W. S. Fisher); [U.S.N.M.]. 10 ♀; Southern Pines; [U.S.N.M.—1; A.M.N.H.—4; Mich. U.—5].

SOUTH CAROLINA: ♀; no locality data; [U.S.N.M.]. ♀; Clemson College, Sept. 15, 1932; (O. L. Cartwright); [Casselberry]. ♀; Holly Hill, Sept. 13, 1908, on pecan; [U.S.N.M.]. ♂, ♀; Yorkville, reared from *Hicoria*, Sept. 13, 1913; (J. E. Smith); [U.S.N.M.].

GEORGIA: ♂; Macon, Oct. 24, 1891, on English walnut; (J. E. Willet); [U.S.N.M.]. ♀; Myrtle, Sept. 15, 1906, on pecan; (A. A. Girault); [U.S.N.M.]. 2 ♂, 2 ♀; Barnesville, Oct. 3, 1910; [U.S.N.M.]. ♀; Clarke Co.; [A.M.N.H.].

FLORIDA: All over state (62 specimens); on wax myrtle, Australian pine, hickory, pecan, reared from *Quercus* and *Atignon lepropus*.

ALABAMA: ♀; Seminole, Nov. 8, 1902, on pecan; (W. W. Jones). ♀; Andalusia, Sept. 20, 1908. ♀; Plainsville; (Hubbard and Schwarz). ♀; Eufuala, Sept. 15, 1910, on pecan. [All in U.S.N.M.].

- TENNESSEE: ♀; Chattanooga, Sept. 30, 1916, on *Ulmus*; (W. Crutchfield); [U.S.N.M.].
- MISSISSIPPI: ♀; St. Louis Bay, Oct. 2, 1894; [U.S.N.M.]. ♂; Scranton, Oct. 12, 1901; [U.S.N.M.]. 3 ♂, ♀; Starkville, Sept. 24, 1904; on pecan; (M. M. High); [U.S.N.M.]. ♂; Golf Port, June, 1938; (Blackwelder); [U.S.N.M.]. 2 ♀; Seymour, on pecan, Nov. 27, 1910; [U.S.N.M.]. ♂; Lucedale, Sept. 20, 1930; (H. Dietrich); [Corn. U.]. ♂, ♀; Harlin Gin, Sept. 19, 1907; (R. A. Vichey); [U.S.N.M.].
- LOUISIANA: 2 ♂, ♀; no locality data; [C.M.—♀; U.S.N.M.—2 ♂]. 8 ♀; Pontchatoula; [U.S.N.M.]. ♀; Keatchie, Oct. 30, 1905; (W. E. Hinds); [U.S.N.M.].
- ARKANSAS: ♀; Southwest Ark.; [A.M.N.H.].
- MISSOURI: ♀; no locality data; [C.M.].
- KANSAS: 2 ♀; Douglas Co., 900 ft.; [U.S.N.M.]. ♂, 3 ♀; Riley Co., Aug.-Sept.; (Popenoe); [U.S.N.M.].
- OKLAHOMA: ♀; Hobart, Sept. 1906, girdling elm; [U.S.N.M.].
- TEXAS: All over state (127 specimens; from pecan; on *Huisach*; from hackberry twigs; on mesquite; girdling grapefruit, *Acacia*, hickory; on cotton, girdling *Gliditala aquatica*; on pear and elm; on *Tresopus tubifolia*.).
- COLORADO: ♂, ♀; no locality data; [U.S.N.M., Casey Coll.].
- CALIFORNIA: ♀; no locality data, on eucalyptus; [U.S.N.M.].
- MEXICO: ♀; Reynosa, May 20, 1895; [U.S.N.M.].

*Remarks*.—The form which is known as *texana* differs from the northeastern specimens of *cingulata* in that it is slightly less distinctly granulate basally on the elytra; the minute fulvous maculae on the median fascia are usually just along the suture and the body color is frequently somewhat darker. In the Texas examples of both species there are no constant differences between the two. The same is true of the southern forms, of which some could be the typical *texana* but others are still more grayish over the entire surface, and in a long series they become intergraded with the typical *cingulata*. In genitalia mounts of the three forms there were no differences, hence *texana* is best treated as a nominal form, without taxonomic rank.

*Subtropicus* Casey is a small female example of the form *texana* which is slightly darker than usual behind the dark band to apex; this is an absolute synonym of *cingulata*, as is the following name.

*Pallescens* Casey is merely the usual pale typical form of the Atlantic States.

*Praecidens* Casey is the occasional large form that occurs throughout the southern states but without distributional regularity which would give the name subspecific status; best treatment, therefore, seems to be as a variety.

**Oncideres poecila** Bates

PLATE XV, FIGURE 8

*Oncideres poecila* Bates, Biol. Centr.-Amer., Col., v, 1880, p. 125.

Distinguished by the chalky white fascia at middle of each elytron; elytra on apical two-thirds with numerous, dense, glabrous maculae, the orange-buff maculae irregular in outline, close-set, often coalescent basally; sterna laterally maculate with orange-buff, metasterna rather broadly so.

MALE. Elongate-oblong, slender, cylindrical, elytra convex; dark brown to fuscous, elytra reddish-brown, paler on apical half; thinly hoary-gray pubescent, maculate with orange-buff. Head hoary-gray pubescent, often variegated with orange-buff; front nearly glabrous, margined laterally (as is eye posteriorly) with orange-buff. Pronotum thinly hoary-gray, with a narrow orange-buff band before middle, often interrupted by the five glabrous maculae, which are feebly transverse and well separated; basal half irregularly marked with orange-buff, especially near basal angles. Scutellum very thinly hoary or orange-buff pubescent. Elytra covered with more or less hoary-gray pubescence, which at middle towards the sides forms a broad, irregularly shaped fascia; maculate irregularly with orange-buff, maculae often coalescent basally and extended onto extreme base, apically well-separated, sometimes ocellated; entire disk rather densely covered with small, glabrous, round spaces (granules on basal quarter). Body beneath reddish-brown to dark reddish-brown; hoary-gray pubescent, slightly variegated with orange-buff; sterna maculate and broadly vittate laterally with orange-buff. Legs dark reddish-brown, thinly hoary-gray and orange-buff pubescent. Antennae reddish-brown, scape nearly fuscous; thinly hoary pubescent.

Head above finely, densely punctate; front finely, slightly rugosely punctate, with a very few coarser punctures intermingled; gena nearly glabrous, rugose below; eye with lower lobe elongate-oblong, one and one-half times height of gena; antennal tubercles feebly elevated, not armed or produced, separated by one and one-half the width of one of them. Pronotum strongly transverse, sides nearly straight, distinctly constricted basally; with a transverse sulcus at apex and at base, the apical one arcuate, the basal one deeper, except laterally; disk with five small, transverse, feebly elevated, glabrous callosities in an undulating line; the lateral tubercles minute. Scutellum slightly transverse; sides straight or slightly arcuate, oblique; apex rounded. Elytra nearly parallel-sided, indistinctly narrowed before middle; apices together rounded; disk on basal quarter or third, except extreme, narrowly smooth base, with moderate-size, feebly elevated granules, irregularly placed, usually indistinctly transverse, these granules are displaced posteriorly by a few scattered punctures, obsolete apically, along sides granules extend indistinctly almost to apex; humerus rounded, the whole slightly tumid and glabrous, ending abruptly behind but without a separate tubercle. Procoxae only slightly tumid, unarmed; femora short, robust, strongly clavate, profemora similar but more robust, with only one or two transverse rugae on base of posterior face. Fifth sternite very slightly longer than fourth, apex broadly, bilobedly emarginate. Antennae about one and one-half times the length of body; scape slightly clavate,

rather slender, densely, finely punctate, internally at base with about four, distinct, transverse rugosities; with several, scattered longer hairs below.

**FEMALE.** Head usually wider than pronotum; antennal tubercles more widely separated; profemora not rugose basally; fifth sternite nearly twice length of fourth, apex distinctly emarginate, medially with a deep, rounded impression on apical half; antennae slightly longer than body; scape less clavate, basally more indistinctly rugose, strongly flattened throughout its length beneath.

LENGTH 12.5-14 mm.; width 4-5 mm.

*Type locality.*—S. W. Yucatan, Mexico.

*Distribution.*—Southwestern Mexico to Salvador.

**MEXICO:** ♀; Chiapas, Pacific slope Cordilleras, 800-1000 m., 1919; (L. Hotsen); [U.S.N.M.].

**SALVADOR:** ♂, 4 ♀; San Augustine, on *Albizia molucana*; (S. Calderon); [U.S.N.M.].

*Variations.*—The Mexican specimen differs from the others in having considerably more orange-buff pubescence than gray, the front and genae pubescent, the glabrous maculae of pronotum smaller and the orange-buff spots of elytra more ocellated, but appears to be identical in every other way.

### ***Oncideres punctata* Dillon and Dillon, spec. nov.**

PLATE XV, FIGURE 9

Closest to *O. poecila* in its relationship, differing in the elytra having a faint, grayish fascia at middle, which has a few whitish maculae within it, the base is much more sparsely and more finely granulate and confined to a smaller area, and the glabrous maculae are finer and less distinct; the sterna laterally have small buff maculae, and the metasternum is immaculate.

**MALE.** Elongate-oblong, slender, cylindrical, elytra convex; orange-brown, pronotum medially and basally dark reddish-brown; hoary-gray and buff pubescent. Head hoary-gray pubescent, between and behind eyes buff; front largely buff, the pubescence more dense laterally. Pronotum hoary-gray, with a number of distinct buff maculae medially and near hind angles; across middle five moderately large, irregular, glabrous maculae in an undulating line, all transverse, except median one, which is longitudinal, the extreme lateral ones narrow, almost linear. Scutellum thinly hoary pubescent. Elytra hoary-gray or white pubescent, the pubescence most obvious at middle, where some is condensed to form scattered, rounded maculae; from behind extreme base, near humerus, a large, quadrate area of buff, not attaining suture, composed of subcontiguous, vague maculae, apical third with numerous, close-set, rounded but ill-defined, buff maculae, a few of which have white centers; entire disk with small, rounded, denuded maculae, few on middle third, denser on basal and, especially, on apical portions, each with a coarse puncture

feeble granule. Body beneath reddish-brown, densely hoary-gray pubescent; sides of prothorax narrowly, arcuately banded, and mesepisternum broadly, metepisternum finely basally, maculate with buff. Legs dark reddish-brown, femora at base and coxae paler, gray and buff pubescent. Antennae orange-brown, comparatively densely hoary-gray pubescent; scape dark reddish-brown.

Head minutely, rather densely punctate; front finely, densely punctate, towards epistoma more coarsely and rather rugosely so; genae nearly glabrous, slightly transverse, coarsely punctate; eye with lower lobe clongate-oblong, large, more than twice height of gena; antennal tubercles slightly prominent, unarmed. Pronotum transverse, sides broadly arcuate, narrower at base; disk with an arcuate apical transverse sulcus and a deeper basal one, which is limited behind by a transverse, broad carina, medially with five low, glabrous callosities; lateral tubercles broad, feebly elevated, obtuse. Scutellum transverse, sides straight, slightly oblique; apex broad, truncate. Elytra with sides parallel, apices broadly rounded; disk on basal quarter behind extreme base sparsely granulate-punctate, punctures coarse, granules fine and feebly elevated, thence coarsely, sparsely punctate, on apical third punctures finer and denser; humeri rounded, entirely occupied by an oblique, glabrous, feebly elevated tubercle. Procoxae large, not tubercled, although more tumid, anteriorly; profemora not rugose. Fifth sternite one-half longer than fourth, apex broadly but feebly emarginate. Antennae more than twice length of body, with long, sparse fringing hairs beneath; scape slender, feebly clavate, indistinctly longer than third, beneath flattened, basally slightly rugose.

LENGTH 11.5 mm.; width 4.2 mm.

*Holotype*.—Male; Ameya, Nicaragua, 1923; (A. D. Harvey); [U.S.N.M. number 57202].

### **Oncideres schreiteri** Bruch

PLATE XV, FIGURE 10

*Oncideres Schreiteri* Bruch, Not. Mus. La Plata, Zool., vi, (50), 1941, p. 367, pl. 5, f. 19, 19a.

Somewhat similar to *O. bondari* but the elytral colored maculae are smaller, less numerous, and more sharply defined, the glabrous maculae are much more numerous, the basal smooth area is broader and extends in tooth-like processes posteriorly into the granulated area.

**FEMALE.** Elongate-oblong, slender, cylindrical, elytra convex; reddish-brown, head and middle of pronotum nearly fuscous, orange-ochraceous and hoary-gray pubescent. Head along occiput hoary-gray; eye posteriorly, and front laterally, margined with denser orange-ochraceous; disk of front with scattered patches of hoary. Pronotum largely orange-ochraceous, with vague touches of gray pubescence, medially with five rounded, denuded maculae arranged in an undulating line, the middle one largest, the outer ones successively smaller. Scutellum thinly pubescent. Elytra sparsely clothed with hoary-gray pubescence, with extreme base and each disk with about twenty-five rounded, rather large, sparse maculae of



dense, orange-ochraceous pubescence; densely beset with many, very small, rounded, denuded maculae, becoming slightly smaller apically, each bearing a single, short, gray hair; sides on apical half fringed with black hairs. Body beneath reddish-brown, abdomen orange-brown, hoary-gray pubescent; each side from apical margin of prothorax to apical third of metepisternum a vitta of brown pubescence, broad anteriorly, behind mesocoxae suddenly attenuate; sides of metasternum broadly, irregularly maculate with orange-ochraceous. Legs reddish-brown, thinly covered with orange-ochraceous and hoary-gray pubescence. Antennae orange-brown, scape slightly darker, very finely covered with short, hoary pubescence.

Head minutely, not densely punctate; front very feebly concave between antennal tubercles, minutely, rather sparsely punctate; genae strongly transverse, coarsely punctate, nearly glabrous; eye with lower lobe broadly oblong, three times height of gena; antennal tubercles feebly elevated, unarmed. Pronotum strongly transverse, apex broader than base; apical transverse sulcus broad, arcuate, basal one straight, more distinct medially, where it is posteriorly bordered by a cariniform elevation. Scutellum about as long as wide, sides straight, oblique, apex truncate. Elytra with sides parallel, posteriorly slightly widened, apices together rounded; extreme base smooth, basal quarter thence sparsely, more or less transversely, finely granulate-punctate, more densely so anteriorly, followed by coarse, sparse punctures, becoming finer posteriorly, each one placed in a denuded macula; humeri broadly rounded, ending in a feebly prominent tubercle. Procoxae feebly tumid internally, not tuberculate; femora short, robust, clavate, profemora not rugose. Fifth sternite one-half longer than fourth, tip emarginate, indistinctly, transversely impressed before apex. Antennae slightly longer than body, beneath fringed to apex with long, fairly dense hairs; scape long, slender, gradually clavate, beneath strongly flattened, transversely rugulose basally.

LENGTH 8.6 mm.; width 3.8 mm.

*Type locality*.—Tucumán.

*Distribution*.—Argentina.

ARGENTINA: ♀; Tucumán, Nov. 27, 1929; (H. A. Jaynes); [U.S.N.M.].

### ***Oncideres ophthalmalis* Dillon and Dillon, spec. nov.**

PLATE XV, FIGURE 11

From *O. poecila*, which *ophthalmalis* resembles to a great extent, it differs in having the elytra only thinly gray fasciate medially, its base less densely and a little more finely granulate, the glabrous maculae much sparser; metasternum each side broadly vittate with chalky white. The very large eye is also an outstanding character.

MALE. Elongate-oblong, slender, cylindrical, elytra convex; dark reddish-brown, pronotum medially and humeri nearly fuscous; covered with silvery-gray and buff-yellow pubescence. Head above largely buff, eye posteriorly and front laterally margined with gray and buff, rest of front nearly glabrous, as are the genae. Pronotum variegated with gray and buff or buff-yellow, with an undulating row of five large, oval, nearly contiguous, denuded maculae. Scutellum very sparsely gray

pubescent. Elytra with a number of comparatively large, rounded, buff-yellow maculae, which are more or less coalescent on base, well separated on apical half by silvery-gray pubescence, which forms a large patch on each disk at middle, interrupted by the yellowish along sutural and lateral margins, everywhere with rather uniformly placed, round, denuded maculae, smaller behind middle. Body beneath reddish-brown, thinly hoary-gray pubescent; mesepisterna maculate with buff-yellowish; metasternum each side broadly vittate with white. Legs reddish-brown, thinly clothed with grayish pubescence, femora above tinged with buff. Antennae reddish-brown, thinly grayish-buff pubescent; scape dark reddish-brown.

Head above minutely, rather densely punctate; front broadly concave between antennal tubercles, densely rather rugosely punctate; genae strongly transverse, coarsely, rugosely punctate; eye with lower lobe oblong, very large, almost thrice the height of gena; antennal tubercles only slightly prominent, unarmed. Pronotum distinctly transverse, sides arcuate, narrowed basally; apical transverse sulcus sinuous, distinct, basal one deep, straight, medially margined behind by a broad, cariniform elevation; disk with five transverse, oval callosities in an undulating line across middle; lateral tubercles distinct but only slightly elevated, obtuse. Scutellum strongly transverse, sides nearly straight, oblique; apex feebly rounded. Elytra with sides parallel, apices together rounded; entire disk, except extreme base, covered with a number of irregular-sized, scattered, flat tubercles, on basal third larger and distinctly elevated; humeri rounded, entirely covered by a low, broad, arcuate, glabrous tubercle. Procoxae large, not tuberculate anteriorly; profemora finely rugose basally on posterior face. Fifth sternite slightly longer than fourth, apex narrow, bilobedly emarginate. Antennae one and one-half times length of body, beneath sparsely fimbriate with long hairs; scape slightly robust, clavate, thickest just beyond middle, beneath flattened, slightly rugose basally.

LENGTH 11 mm.; width 4 mm.

*Holotype*.—Male; Rio Frio, Magdalena, Colombia, Dec., 1928; (P. J. Darlington); [M.C.Z.].

### ***Oncideres bondari* Melzer**

PLATE XV, FIGURE 12

*Oncideres bondari* Melzer, Rev. Museu Paulista, xv, 1927, p. 199, pl. 5, f. 16.

This species is small and cylindrical; the elytra have large, irregularly shaped ochraceous-buff maculae, which are more or less surrounded by the glabrous maculae, the latter feebly elevated as far as the apex, the basal ones only moderately produced; and metasternum is maculate with ochraceous-buff.

FEMALE. Elongate-oblong, rather slender, cylindrical, elytra convex; dark reddish-brown, elytra, except at humeri, paler; densely pubescent with orange-buff and pale gray. Head above largely orange-buff, especially behind eyes, where the pubescence forms a broad vitta; front ochraceous-buff, more densely so laterally; genae nearly glabrous. Pronotum orange-buff, with five transverse, oval, denuded maculae in an undulating line across middle; having gray pubescence around these

bare spots and along apical margin. Scutellum thinly ochraceous-buff pubescent. Elytra densely covered with comparatively large, irregularly shaped, ochraceous-buff maculae, these mostly coalescent on basal half, more distinctly separated apically, the space between these maculae is occupied by gray pubescence and numerous, rounded, small, denuded spots, somewhat larger on basal half, where the gray is very inconspicuous. Body beneath reddish-brown, densely hoary-gray pubescent; metasternum vittate laterally with orange-buff, the vitta broadly widened at apex; mesepisternum and mesocoxae posteriorly maculate with the same color. Legs reddish-brown, gray pubescent; femora darker, and with orange-buff pubescence above. Antennae reddish-brown, rather thinly clothed with ochraceous-buff pubescence; scape dark reddish-brown.

Head minutely punctate; front broad between antennal tubercles, very feebly concave there, finely, not densely punctate, with a few coarser punctures interspersed especially towards epistoma; eye with lower lobe elongate-oblong, nearly twice height of gena; gena rather coarsely, rugosely punctate; antennal tubercles slightly elevated, unarmed. Pronotum strongly transverse, sides nearly straight, gradually widened to apex, before basal third laterally with a small tubercle; disk with a shallow, sinuate, apical, and a straight, basal, transverse sulcus, the latter very deep medially, at middle an undulating row of five, feebly elevated, glabrous tubercles. Scutellum slightly transverse, sides straight, oblique, apex feebly rounded. Elytra with sides parallel, slightly widened behind middle, apices together rounded; entire disk, except on extreme base, with numerous, irregularly placed, large, low granules, gradually becoming less distinctly elevated, but still slightly raised to apex; humeri rounded, entirely occupied by a curved, feebly elevated, glabrous tubercle, extending along basal margin towards scutellum to beyond hind angle of pronotum. Procoxae prominent, with an obtuse tubercle anteriorly; femora clavate, robust, metafemora more slender. Fifth sternite nearly twice length of fourth, feebly bilobedly emarginate at apex, apically with a shallow impression. Antennae a little longer than body; scape slender, feebly clavate, beneath flattened, finely, transversely rugose at base.

LENGTH 11 mm.; width 3.75 mm.

*Type locality*.—Piracicaba, São Paulo, Brazil.

*Distribution*.—Brazil.

BRAZIL: ♀; Chapada, Campo; [C.M.].

*Remarks*.—Melzer does not mention the occurrence of any gray pubescence on the elytra, but as this is so scant, the authors have felt, since the above specimen agrees so well in all other respects, that this might have been overlooked, or that its presence was due to the difference of locality.

### **Oucideres voetii Thomson**

*Oucideres voetii* Thomson, *Physis*, II, 1868, p. 84.

“Relatively, moderately elongate; robust; black; head slightly scabrose. Antennae covered with yellowish pubescence. Prothorax very minutely armed lat-

erally; medially transversely ochraceous and with three black, shining tubercle-form maculae (two lateral ones strongly elongate) arranged in a single row. Elytra robust, gray pubescent; base ochraceous, black tuberculate, tubercles strongly agglomerated; with large ochraceous maculae, sparse (more than eighty in number); apices rounded. Sternum ochraceous maculate. Abdomen gray; legs black, ochraceous tomentose. Length 16 mm.; width 6 mm. Cayenne.

"More robust than *O. guttulata*; distinguished by more scabrose head; darker antennae; prothorax with only three black maculae; elytral basal tubercles much more numerous; as well as by spots on sternum."

A translation of the original description is given above.

### ***Oncideres fisheri* Dillon and Dillon, spec. nov.**

#### PLATE XV, FIGURE 13

Closely related to *O. bondari* but differs in the almost entire lack of gray pubescence on elytra, the elytral granulation confined entirely to basal half, the differently shaped, denuded maculae of the pronotum, and the metasternum with only a very indistinct vitta laterally, as well as in the size and shape of the eye.

FEMALE. Elongate-oblong, rather slender, cylindrical, elytra convex; nearly fuscous, elytra and apex and base of pronotum less deep brown, densely ochraceous-buff pubescent. Head ochraceous-buff; eyes posteriorly broadly and front laterally narrowly margined with orange-buff; genae nearly glabrous. Pronotum ochraceous-buff, with irregular spots or patches of pale gray and orange-buff on middle of disk; with five denuded maculae in an undulating line, the median one elongate, the submedian larger, transverse, oval, the lateral ones smaller, rounded. Scutellum thinly ochraceous-buff. Elytra nearly uniformly ochraceous-buff, with scattered small patches of pale grayish pubescence and with numerous, irregularly placed, rounded, denuded maculae, those behind middle suddenly smaller; humeri glabrous. Body beneath dark reddish-brown, densely hoary-gray pubescent; mesepisterna and mesepimera maculate with orange-buff, metasternum laterally very vaguely vittate with the same color. Legs dark brown, pale grayish and orange-buff pubescent. Antennae dark reddish-brown, thinly ochraceous-buff pubescent.

Head slightly wider than prothorax, minutely punctate above; front finely, not densely punctate, and with a few coarser punctures, especially below; eye with lower lobe elongate-oblong, slightly narrowed below, one and one-half times length of gena; genae coarsely punctate; antennal tubercles feebly elevated, unarmed. Pronotum distinctly transverse, sides widened from base to apex, before basal third laterally with a small obtuse tubercle; disk with a sinuous apical, and a straight basal, transverse sulcus, the latter more distinct medially than at sides, but not notably deepened, the five denuded maculae, as described above, tubercleform but only slightly elevated. Scutellum transverse, sides straight, oblique; apex narrow, subtruncate. Elytra with sides parallel, a little wider behind middle, apices together rounded; disk on basal half with numerous, irregularly placed, large granules, each with a large puncture posteriorly, their elevation decreasing gradually, behind middle

succeeded by rounded, smaller maculae, each with a single coarse puncture; humeri rounded, entirely occupied by a curved, feebly elevated, glabrous tubercle, extending along basal margin to middle of each base. Procoxae prominent, unarmed; femora clavate, robust, metafemora shorter. Fifth sternite nearly twice length of fourth, bilobedly emarginate at apex, with a distinct transverse impression near apex. Antennae slightly longer than body, sparsely fimbriate beneath; scape slender, feebly clavate, beneath flattened, finely, transversely rugose at base.

LENGTH 11 mm.; width 4 mm.

*Holotype*.—Female; Cayuga, Guatemala, July, 1915; (Wm. Schaus); [U.S.N.M. number 57198].

*Remarks*.—Named in honor of Mr. Warren S. Fisher who very generously permitted the authors to describe this and several other species which he had labelled as new in the National Museum's collection, and who has been kind to the writers in many other ways as well.

### *Oncideres tuberculata* Thomson

PLATE XV, FIGURE 14

*Oncideres tuberculata* Thomson, *Physis*, II, 1868, p. 85.

The pronotum has exceptionally large and elevated maculae for this group; the elytra at base are coarsely but sparsely granulated, the granules more feebly elevated posteriorly but continuing to apex, the colored maculae are confined to the apical half, especially along suture; metasternum laterally maculate with both white and ochraceous-buff.

**FEMALE.** Elongate-oblong, rather robust, cylindrical, elytra convex; dark reddish-brown, elytra paler; elytral and pronotal tubercles and humeri black or fuscous; largely ochraceous-buff pubescent, with scattered areas hoary-gray. Head hoary-gray on occiput, rest ochraceous-buff; front thinly ochraceous-buff pubescent, more densely so laterally; gena glabrous. Pronotum ochraceous-buff, along basal and apical margins and around glabrous maculae, hoary-gray; five large, nearly contiguous, oval, glabrous maculae in an undulating line before middle, median one rounded, rest transversely oval. Scutellum thinly hoary pubescent. Elytra almost entirely ochraceous-buff, with hoary-gray pubescence irregularly outlining glabrous maculae, the ochraceous apically condensed in places to form ill-defined maculae, some of which are ocellated; glabrous maculae all tubercleform, sparse, large basally, gradually finer to apex. Body beneath light reddish-brown, thinly hoary-gray pubescent; prothorax laterally, and meso- and metasternal side-pieces maculate, metasternum vittate, with ochraceous-buff; metasternum also with dense white at sides. Legs reddish-brown, femora darker apically; ochraceous-buff and hoary pubescent. Antennae reddish-brown, scape darker; hoary-gray pubescent.

Head broader than prothorax, densely, minutely punctate; front finely, densely, rather roughly punctate; genae quadrate, glabrous, strigosely punctate; eye with lower lobe elongate-oblong, a little more than one and one-half the height of the genae; antennal tubercles feebly elevated, widely separated. Pronotum strongly transverse, sides gradually widened from base to apex; apical transverse sulcus shallow, sinuate, basal one straight, deep, especially at middle, where it is margined behind by a broad, cariniform elevation; disk with five large, transverse callosities in an undulating line across middle, the lateral one only slightly elevated; lateral tubercle short but distinct, conical. Scutellum transverse, nearly semicircular. Elytra with sides parallel, apices together rounded; entire disk, except extreme base, with scattered tubercles, the basal ones large, prominent, on apical half tubercles suddenly smaller, feebly elevated; humeri rounded, entirely covered by a low, arcuate, glabrous tubercle. Procoxae large, tumid but not tuberculate anteriorly; profemora not rugose. Fifth sternite one-half longer than fourth, apex broadly truncate, with a distinct, large, triangular impression on apical half, its apex deep. Antennae lacking from fourth segment; scape slender, feebly clavate, beneath strongly flattened, slightly rugose basally.

LENGTH 11.5 mm.; width 4.3 mm.

*Type locality*.—Cayenne.

*Distribution*.—The Guianas.

BRITISH GUIANA: ♀; Tumatumari, Rio Potaro, April 1912; [A.M.N.H.].

ECUADOR: ♀; El Partidero, November 27, 1935; (Wm. McIntyre); [L. Lacey].

*Remarks*.—The Ecuadorian specimen differs in having a broad area of brown pubescence towards the suture on each elytron.

### **Oncideres diana** Olivier

*Lamia diana* Olivier, Enc. Méth., vii, 1792, p. 470. Brongniart, Bull. Soc. Philom. Paris, i, 1793, p. 34, pl. 2, f. 2.

*Oncideres diana* Olivier. Lacordaire, Gen. Col., ix, 1872, p. 679.

*Superda albella* Schönheer, Syn. Ins., i, 3, 1817, p. 395.

"Thorax subspinose, tuberculate, with small horns internally arcuate at base of antennae. Elytra white sericeous, black punctate. Length 7 lines; width 3 lines.

"Antennae little longer than body, brown, covered with ferruginous pubescence. Head black, with ferruginous reflex; front plane, quadrate, inclined below, at middle a black smooth stria, at base of antennae two small short horns, curved inwardly and which form crescents on the head. Pronotum black, with a ferruginous reflex, two very small lateral spines and three dorsal tubercles, black, smooth. Elytra ferruginous at base, covered with black, smooth tubercles, middle white with several elevated black points, apex maroon with sparse white small points. Abdomen maroon covered with a whitish pubescence. Legs brown covered with a distinct ashy pubescence. Cayenne."

The above is a translation of the original description.

**Oncideres intermedia** Dillon and Dillon, spec. nov.

PLATE XV, FIGURE 15

Quite distinct from all other known members of this cylindrical group. The elytra are entirely thinly gray pubescent, its base with a few, large, obtuse granules, the apices of which are directed posteriorly, the disk maculate only with large, widely separated, glabrous maculae. The upper lobe of the eye is very wide for the genus.

**MALE.** Elongate-oblong, rather slender, cylindrical, elytra convex; dark reddish-brown, elytra somewhat paler, finely hoary-gray pubescent. Head hoary pubescent at occiput, above and behind eyes pale yellowish-gray; front nearly glabrous, laterally thinly margined with pale yellowish-gray. Pronotum thinly covered with hoary pubescence, anteriorly, especially medially, tinged with yellowish, across middle of disk are five rounded, glabrous maculae, poorly defined (specimen somewhat worn). Scutellum nearly glabrous. Elytra thinly hoary gray, with large glabrous granules at base and with about twenty-five nude, large, rounded maculae on each elytron. Body beneath reddish-brown, thinly hoary-gray pubescent, immaculate. Legs dark reddish-brown, covered with hoary pubescence. Antennae reddish-brown, distally becoming slightly paler; sparsely clothed with very short gray or yellowish pubescence.

Head minutely alutaceous, very finely punctate; front minutely, densely alutaceous and finely, rather sparingly punctate, with a number of coarse, deep punctures scattered over most of the disk; genae subquadrate, a little higher than broad, nearly glabrous, minutely alutaceous and finely punctate, with sparse granulate-punctures, each of which bears a long hair; eye with lower lobe broadly oblong, one-half again as high as gena; antennal tubercles slightly prominent, terminating internally in a short tooth. Pronotum strongly transverse, sides gradually widened from base to apex; apical and basal transverse sulci straight, distinct, the latter especially visible at middle, where it is posteriorly delimited by a cariniform elevation; disk with five feebly elevated, glabrous callosities, the most lateral of which are bordered anterio-laterally by a prominent tumid area; lateral tubercles small, obtuse, without a distinct terminal process. Scutellum strongly transverse, semi-circular. Elytra with sides straight (after humeri), slightly attenuate to apices, which are together rounded; extreme base smooth, disk thence on basal quarter with very large, dense, conical granules, followed by smaller, rounded maculae, the more basal ones feebly elevated, each granules and macula bearing a single puncture; humeri very prominent, rounded, at posterior angle tuberculate. Procoxae not at all tuberculate anteriorly, only very slightly tumid there; femora robust, clavate, profemora transversely rugulose on lower portion of posterior face on basal half; legs gradually shorter posteriorly, tarsi subequal to femora, which are a little longer than tibiae. Fifth sternite slightly longer than fourth, apex broadly emarginate. Antennae one and one-half times as long as body, very shortly, sparsely fringed beneath almost to apex, hairs longer and more dense on first and third segments; scape comparatively short, moderately robust, feebly clavate from base, beneath not flattened, coarsely rugose near base.

LENGTH 12 mm.; width 4 mm.

*Holotype*.—Male; Pará, Brazil, July 10; [C.M.].

### *Oncideres scitula* Bates

PLATE XVI, FIGURE 3

*Oncideres scitula* Bates, Biol. Centr.-Amer., Col. v, 1880, p. 126.

Elongate-oblong; rather slender, subcylindrical, elytra subconvex; brown to black. Head with brown to fuscous, shaggy pubescence and rufous-ochraceous markings as follows: eyes margined posteriorly, a narrow vitta either side of middle from occiput to posterior lobe of eye, a vitta either side of front, which is widest apically; genae pubescent except for a very narrow strip on front margin. Pronotum covered with brown to fuscous pubescence and with four rather broad rufous-ochraceous vittae as follows: one either side of middle and one each side over lateral tubercles, the apex with a long, grayish-brown fringe. Scutellum brown pubescent. Elytra sparsely brown pubescent on basal third or quarter, thence sparsely yellowish or grayish pubescent to apex, and each with four more or less regular rows of small, rounded, ochraceous to rufous-ochraceous maculae and with some very minute ones scattered in between. Beneath reddish-brown to dark brown, densely clothed with pale yellowish-gray pubescence; sterna and sternites laterally rufous-ochraceous. Legs dark reddish-brown, pale yellow-gray beneath and rufous-ochraceous above. Antennae with scape dark reddish-brown to piceous, remaining segments lighter; scape with sparse, long, fine, yellowish-gray hairs and intermixed with long, setae-like blackish hairs, remaining segments densely clothed with yellowish-gray, apical third darker.

Head above finely, densely punctate, with a few much coarser punctures interspersed, front trapezoidal, finely, densely punctate, with a few widely scattered, coarse punctures; genae rugosely punctate; eyes with lower lobe oblong-ovate, subequal to genal height. Pronotum only feebly transverse, apex and base subequal, sides feebly arcuate; only basal sulcus present, and that feeble; disk at middle transversely rugose, basally and base of lateral tubercles with few punctate granules; lateral tubercles feeble. Scutellum transverse; sides nearly straight, oblique; apex rounded. Elytra slightly widened behind middle; apices together rounded; basal quarter rugosely punctate, thence coarsely, rather densely punctate to apex; disk subcostate between first and second, second and third, and third and fourth rows of maculae; humeri slightly prominent, without tubercle on posterior angle. Procoxae feebly obtusely tubercled, in female only very feebly so; profemora in male dilated basally, gradually clavate apically, posterior surface of basal half with eight to ten deep transverse ridges, apical half finely rugose, anterior surface transversely rugose; in female profemora abruptly clavate from basal third, finely rugose basally. Fifth sternite in male slightly longer than fourth, emarginate apically, in female about one-quarter longer than fourth, at apex deeply emarginate and on apical half deeply, transversely, arcuately impressed. Antennae in male about one and one-half times body length, in female slightly longer than body; scape very gradually thickened apically; at base nearly scabrose, rugose on apical half, in female with three or four deep grooves at base.

LENGTH 13-15 mm.; width 4-4.5 mm.



*Type locality*.—Oaxaca, Mexico.

*Distribution*.—Mexico.

MEXICO: ♀; Guadalajara; (McConnell); [C.M.]. ♂; Real de Arriba, D. F., Nov. 1932; 6300 ft.; (H. E. Hinton); [C.A.S.].

? BRAZIL: ♂; no locality data; from Mniszech coll.; [A.N.S.P.].

#### INCERTAE SEDIS

### **Oncideres maculosus** Redtenbacher

*Oncideres maculosus* Dejean, Cat., ed III, 1837, p. 369. [nom. nud.]. Redtenbacher, Reise der Novara, Zool., II, 1868, p. 184.

“From *Oncideres vomicosus* Germ., this differs in the more grayish-white color of the pubescence, the longer frontal horns of males, the unicolorous pronotum, the cone-shaped pointed humeral knob, and by the sharply delimited, broad, white band, interrupted only at the suture, at the middle of the elytra. Rio de Janeiro.”

### **Oncideres attenuata** Thomson

*Oncideres attenuata* Thomson, Physis, II, 1868, p. 91.

“FEMALE. Elongate, attenuate, brown, covered with sparse rounded yellow maculae and pubescence. Head sparsely ochraceous pilose; horns small, front at middle with a black longitudinal stripe. Prothorax laterally behind middle obtusely armed; disk uneven, covered with some sparse yellow maculae. Elytra elongate, attenuate, at humerus black; at base with rather close, small, regular, shining, black tubercles, thence sparsely punctate, with yellow pubescence and very sparse, rounded, yellow maculae, apices rounded. Sternum laterally yellow maculate; body beneath gray and yellow variegate; legs gray-yellow pubescent.

“LENGTH 22 mm.; width 7.5 mm. Brazil.

“Distinguished by its attenuate form.”

Both the above descriptions are translations of the originals.

### **MICROCANUS** Dillon and Dillon

*Microcanus* Dillon and Dillon, Sci. Publ. Reading Mus., v, 1945, p. xi.

Differs from *Taricanus* in having eye elongate, not transverse, the isthmus between the two lobes rather broad; elytra simply punctate; antennae with third and fourth segments swollen only on apical third, fimbriation dense only on scape and apices of third and fourth segments, but continued to apex of antennae; mesosternal process is subtruncate at apex; and front is subquadrate, gradually narrowed below from antennal tubercles.

Small, elongate-oblong, robust, cylindrical; reddish-brown. Head with front subquadrate, sides gradually narrowed below from antennal tubercles; genae

elongate; eye with lower lobe small, oblong-ovate, subequal in height to gena, isthmus quite broad between upper and lower lobes; antennal tubercles widely separated, feeble, minutely armed at apex. Pronotum transverse, apex wider than base, lateral tubercles very feeble; disk transversely rugose at middle. Scutellum transverse. Elytra slightly widened behind middle, apices together rounded; disk without gibbosity, entirely covered with close-set, coarse, simple punctures; humeri feebly prominent, anterior margin straight, angle rounded. Prosternum simple, widened behind middle of coxae; mesosternal process with sides straight, apex subtruncate. Legs very short; procoxae globose, with a broad, obtuse tubercle in male, unarmed in female; femora abruptly clavate, profemora in male very robust, gradually clavate. Antennae in male one and one-third to one and one-half times as long as body, slightly longer than body in female; heavily fimbriate beneath on scape, and on apical third of third and fourth segments, and sparsely so on remaining portions; scape long, reaching beyond middle of pronotum, more or less cylindrical, very gradually clavate, without lateral longitudinal grooves; third segment slightly longer than scape, slender, straight, dilated on apical third; fourth shorter than third, feebly dilated on apical third; rest gradually shorter, eleventh not elongate.

GENOTYPE.—*Taricanus minor* Bates.

### **Microcannus minor** Bates

PLATE XVII, FIGURE 2

*Taricanus minor* Bates, Biol. Centr.-Amer., Col., v, suppl., 1885, p. 368.

A small species somewhat resembling *Taricanus truquii*, but the body color is reddish-brown, not black, and the body form is quite distinct.

MALE. Elongate-oblong, robust, cylindrical; head and pronotum reddish-brown, elytra paler. Head and pronotum thinly fulvous pubescent. Elytra at extreme base, a narrow, feebly oblique fascia before middle and apical fourth, very thinly white or grayish pubescent, intervening spaces thinly brown pubescent, entire surface with few scattered, more or less rounded, small, fulvous maculae. Beneath reddish-brown, thinly white pubescent, sterna laterally irregularly fulvous or brownish, abdomen each side irregularly and indistinctly vittate with fulvous. Legs reddish-brown, tibiae and tarsi paler; thinly fulvous pubescent, occasionally gray variegated. Antennae with scape, apical third of third segment, fourth and all of remaining segments pale reddish-brown, basal two-thirds of third and fourth pale yellowish-brown; entire antennae very thinly clothed with pale gray or fulvous pubescence.

Head above alutaceous; front finely, densely punctate. Pronotum with apical transverse sulcus wide, slightly curved, basal sulcus shallow, wide, and oblique laterally; middle of disk with several rugosities. Scutellum transverse; sides nearly straight, oblique; apex broadly rounded. Profemora on basal two-thirds coarsely, transversely rugose, remaining femora more abruptly clavate.

**FEMALE.** More robust; front slightly more transverse; antennal tubercles feeble and more widely separated; prosternum broader; fifth sternite at apex subtruncate and with a broad, triangular impression; procoxae unarmed; profemora more abruptly clavate and not rugose; antennae as long or slightly longer than body, from fifth, remaining segments very much shortened.

**LENGTH** 6-7.5 mm.; width 2-2.75 mm.

**Type locality.**—Jalapa, Mexico.

**Distribution.**—Mexico.

MEXICO: 2 ♂, 1 ♀; Jalapa, (Höge); [U.S.N.M.].

### TARICANUS Thomson

*Taricanus* Thomson, *Physis*, II, 1868, p. 73. Lacordaire, *Gen. Col.*, IX, 1872, p. 668, 680. Leng and Hamilton, *Trans. Am. Ent. Soc.*, XXIII, 1896, p. 140.

Distinguishing characteristics of the genus are as follows: the eye small, nearly divided into separate upper and lower lobes; the antennae heavily fringed proximally on first five segments, the third and fourth segments swollen throughout their lengths; and the elytra granulate-punctate from base to apex.

Moderate-sized beetles, elongate-oblong, cylindrical; black. Head with front transverse, much narrowed below; genae elongate; eye with lower lobe slightly transverse, small, one-half the height of gena, the isthmus connecting upper and lower lobes very narrow, almost wanting; antennal tubercles widely separated, prominent, briefly dentate at apex in male, feebly so in female. Pronotum transverse, base narrower than apex; lateral tubercles feeble; disk with several rugosities medially. Scutellum transverse. Elytra widened behind middle, apices together rounded; disk without a gibbosity, sparsely granulate-punctate, granules visible to apex; humeri prominent, anterior margin strongly arcuate, angle with a large, rounded tubercle. Prosternum simple, broad, wider in female; mesosternal process with sides parallel, apex feebly emarginate. Fifth sternite slightly longer than fourth, in male apex emarginate, in female strongly emarginate at apex and with a large, triangular impression. Legs short; procoxae globose, with a feeble tubercle in both sexes; femora gradually clavate, profemora robust and parallel-sided in male. Antennae about one and two-thirds times as long as body in male, about one and one-third times as long in female, very heavily fimbriate beneath on first and third segments and on dark portions of fourth and fifth; scape robust, very gradually clavate, not reaching to middle of pronotum, laterally with a longitudinal groove on basal half internally and externally; third and fourth segments much swollen throughout, the former about one and one-half times as long as scape; from fifth more slender, the segments shorter, the eleventh elongate in both sexes; in female third and fourth segments less tumid.

**GENOTYPE.**—*Taricanus truquii* Thomson, by monotypy.

**Taricannus truquii** Thomson

PLATE XVII, FIGURE 1

*Taricannus truquii* Thomson, Physis, 11, 1868, p. 74. Bates, Biol. Centr.-Amer., Col., v, 1880, p. 126, pl. 9, f. 6. Leng and Hamilton, Trans. Am. Ent. Soc., xxiii, 1896, p. 14. Dillon and Dillon, Sci. Publ. Reading Pub. Mus., v, 1945, p. xv.

MALE. Elongate-oblong, robust, cylindrical; black. Head gray pubescent, slightly variegated with fulvous or ochraceous; eyes and sides of front margined with fulvous or ochraceous. Pronotum thinly gray pubescent, with two transverse, narrow fasciae, one just before middle and one at basal sulcus, fulvous or ochraceous. Scutellum gray pubescent, variegated with fulvous. Elytra densely gray pubescent, with well spaced, more or less rounded, small, fulvous or ochraceous maculae, interspersed with many, very small, round, black, glabrous maculae. Beneath black, heavily gray pubescent, sternal side-pieces and metasternum laterally irregularly fulvous or ochraceous maculate; sternites variegated laterally with fulvous or ochraceous, first to fourth either side with a small, glabrous, black macula. Legs black, gray pubescent, feebly fulvous or ochraceous variegated. Antennae piceous, scape and third segment thinly gray pubescent, fourth segment with basal half pale, pale area increasing on remaining segments until only extreme apex is piceous.

Head above finely, rugosely punctate; front finely, densely punctate, and with coarser punctures forming rugosities; genae rugosely punctate. Pronotum with basal and apical sulcus feeble; disk with fine rugosities medially. Scutellum transverse; sides arcuate; apex broadly rounded, notched medially. Profemora finely rugosely punctate and ventrally coarsely rugose on basal half, other femora gradually clavate; protarsi feebly dilated.

FEMALE. More robust; antennal tubercles more widely separated and very feebly prominent; prosternum much broader; fifth sternite at apex strongly emarginate and with a large, deep, triangular impression; profemora gradually clavate, only very feebly rugose ventrally.

LENGTH 13-20.5 mm.; width 5.5-8 mm.

*Type locality*.—Mexico.

*Distribution*.—Mexico and southwestern United States.

MEXICO: 4 ♂, 7 ♀; no locality data; [Minn. U.—♀; M.C.Z.—3 ♂, 6 ♀; U.S.N.M.—♂.]. ♂, ♀; Morelos, Sept.; (Koebele); [C.A.S.]. 2 ♂, 3 ♀; Cuernavaca, October 4, 1902; [C.A.S.]. ♀; Tepic; (Fuchs); [C.A.S.]. ♂; Amula, Guerrero, 6000 ft., August; (H. H. Smith); [A.M.N.H.]. 3 ♂, 3 ♀; Chilpancingo, Guerrero, 4600 ft., October; (H. H. Smith); [A.M.N.H.—♂, ♀; M.C.Z.—♀; U.S.N.M.—2 ♂, ♀]. 2 ♀; Oaxaca, November, 1905, attacking cotton; (Y. M. Rioma); [U.S.N.M.]. ♀; Atl.; [U.S.N.M.]. ♀; Mexico City, D. F.; (J. R. Inda); [U.S.N.M.]. ♂, 2 ♀; Chiantla, [U.S.N.M.]. ♂, 2 ♀; Tehuacan, Puebla, September, 1917; [L. Lacey].

NO LOCALITY DATA: ♂, ♀; [A.N.S.P.—♂; U.S.N.M.—♀].

**CHITRON** Dillon and Dillon

*Chitron* Dillon and Dillon, Sci. Publ. Reading Mus., v, 1945, p. x.

Distinct from all other known genera in the converging linear elevations on the elytra. Resembles *Oncideres* in having pronotum much wider at apex than at base; antennal tubercles strongly separated; and vertex strongly declivous. Distinguishing characteristics are as follows: front strongly transverse; eye with lower lobe narrow, oblong, only slightly longer than gena; and clytra maculate at apex somewhat as in *Cylicasta*.

Moderate-sized, elongate-oblong, cylindrical, rather slender; dark reddish-brown to piceous. Head with front punctate, strongly transverse, sides nearly parallel to lower margins of eye, then narrowed to epistoma; genae elongate; eye with lower lobe narrowly oblong, equal to height of gena; antennal tubercles in female slightly prominent, feebly robust, widely separated, not armed at apex. Pronotum strongly transverse; sides nearly straight, unarmed; apex distinctly wider than base; apical sulcus broad, deep, arcuate at middle, basal sulcus oblique at sides; disk tumid, with three large tubercles. Scutellum transverse. Elytra with sides parallel to apical third, thence narrowed to apices, which are separately, broadly rounded; at base with a linear elevation from humerus to suture at basal quarter, another elevation at basal third of suture to apical third laterally, and at apical fifth a broader, short elevation laterally, not attaining suture; surface on basal third very coarsely punctate, punctures finer but distinct to apex; humeri feebly prominent, anterior margin arcuate, angle with a feeble, obtuse tubercle. Prosternum simple, gradually widened posteriorly; mesosternal process short, sides straight, apex truncate. Legs very short; procoxae globose, unarmed in female; femora robust, strongly clavate from basal third. Antennae about as long as body in female; scape slender, moderately clavate from basal third, feebly arcuate, attaining apical fourth of pronotum; third segment cylindrical, bisinuate, about one-half longer than first; fourth and following segments shorter.

GENOTYPE.—*Trestonia mniszecchii* Buquet.

**Chitron mniszecchii** Buquet

PLATE XVI, FIGURE 15

*Trestonia mniszecchii* Buquet, in Thomson, Arc. Nat., 1859, p. 48, pl. 5, f. 2.

Distinct from all other members of the tribe in the fuscous and white 'X' common to both elytra on their anterior two-thirds and the elytral apices being dark, as in *Cylicasta*.

FEMALE. Elongate-oblong, rather slender, cylindrical; head piceous, pronotum and elytra dark reddish-brown. Head above brownish-fulvous pubescent with a small, oval, dark brown macula either side of middle on occiput; front dark brown pubescent, varied and blotched with fulvous and gray. Pronotum with disk brownish pubescent, sides varied with white and with a narrow, oblique, white vitta

from apex to base. Scutellum dark brown pubescent. Elytra gray-brown pubescent, with a common triangular macula of fulvous, brown, and gray at base, an oblique vitta (from suture to sides) from just before middle and a small, indistinctly determined area on apical third of same color, apex of each elytron with a broadly oval macula of dark brown pubescence. Beneath dark reddish-brown, densely covered with gray, fulvous, and brown variegated pubescence, an oblique, dark brown macula extending from near middle of metasternum to side of first sternite. Legs dark reddish-brown, femora thinly gray-brown pubescent, variegated irregularly with gray and fulvous; tibiae and tarsi gray, brown, and fulvous variegated. Antennae reddish-brown; scape gray-brown pubescent, dorsally variegated with gray and fulvous, remaining segments basally gray, apically brown.

Head above finely alutaceous; front with scattered, coarse punctures; genae with scattered, coarse punctures. Pronotal disk with five tubercles, one medially, elongate, two either side of middle, more or less transverse. Scutellum transverse, sides nearly straight, somewhat oblique, apex broadly rounded. Fifth sternite about one-fourth longer than fourth, at apex broadly emarginate and broadly, shallowly, triangularly impressed. Profemora finely rugose basally.

LENGTH 17.5-18 mm.; width 5-5.2 mm.

*Type locality*.—Brazil.

*Distribution*.—Southeastern Brazil.

BRAZIL: ♀; no locality data; [M.C.Z.]. ♀; Rio de Janeiro, November; [C.M.].

### Incertae sedis

*Hypsioma difficilis* Lameere, Ann. Soc. Ent. France, LXII, 1893, p. 278.

"Elongate, parallel, brownish-chestnut, gray and ochraceous pubescent. Front, genae, pro- and mesothorax laterally whitish. Elytra confluent maculate with ochraceous; a lateral macula behind middle whitish, apical maculae ochraceous, more distinct. Antennal tubercles approximate; genae long; antennal scape clavate, third segment less flexuose; segments from fourth testaceous, apices fuscous; slightly longer than body in female. Prothorax coarsely and sparsely punctate, sides strongly parallel, apically and basally sulcate. Scutellum rounded, white pubescent, with a posterior denuded macula. Elytra elongate, sides parallel, humeri distinctly prominent, with a small glabrous, smooth tubercle, coarsely and roughly punctate as far as the white macula. Abdomen laterally white variegated. Length 21.5 mm. Colony Tovar in Venezuela. 1 ♀.

"Does not have the ordinary form of *Hypsioma*, elytra having their sides parallel and humeri only slightly prominent, by this character, by the approximation of antennal tubercles it offers an affinity to *Jamesia* from which it differs by form of scape and by brevity of last joint of tarsi."

*Hypsioma parallela* Melzer, Rev. Ent., iv, 1934, p. 93, pl. 2, f. 10.

"Elongate, posteriorly gradually attenuate; piceous, with gray pubescence, variegated with ashy-fuscous. Head, except front and vertex which are variegated with ashy-fuscous, ashy tomentose. Thorax densely ashy tomentose, dorsally with four subquadrate, more or less indistinct maculae and laterally each with a single

round macula, of ashy-fuscous tomentum. Elytra rufo-picceous, very finely ashy-red tomentose at hind quarter with a broad ashy fascia, broader toward suture. Antennae—except first and second segments picceous—rufo-testaceous, segments three to eleven ashy villose, apically annulate with picceous. Head between antennae strongly concave, below pubescence not distinctly punctate; front strongly elongate, flat, longitudinally sulcate; antennal tubercles shortly produced; eyes coarsely granulate, superior lobes approximate, lower lobe visibly elongate, subtriangular; genae elongate, longer than lower ocular lobe; antennae with last four segments surpassing elytral apex, basally below loosely ciliate, scape apically strongly clavate, third segment gradually flexuose. Thorax cylindrical, shorter than broad, below pubescence not distinctly punctate, laterally unarmed. Elytra at base much broader than thorax, from humeri to apex gradually attenuate, apices each rounded; humeri arcuate, moderately produced; armed with denuded tubercles, coarsely punctate, punctures apically evanescent. Legs robust, short; femora strongly clavate; procoxae globose, unarmed; prosternal process broad, posteriorly arcuate and dilated; mesosternal process twice as broad, more or less flat. 8 mm. 1 example from Argentina: Tucuman. Type in collection of Mh. Bruch.

“Differs from other *Hypsioma* in more cylindrical form and elytral humeri less prominent. Easily recognized by the large, transverse, subapical fascia of elytra.”

*Hypselomus obscurellus* Bates, Ann. Nat. Hist., (3) xvi, 1865, p. 169.

*Hypsioma obscurellus* Bates. Bates, loc. cit., p. 170.

“Head dusky, eyes ample; forehead narrow, coarsely punctured, antenniferous tubercles unarmed. Antennae black, base of joints gray, basal joint very abruptly clavate near apex, subglobose, third joint very slightly curved. Thorax cylindrical, constricted behind middle, surface very uneven, coarsely wrinkled transversely, dark brown. Elytra moderately elongated, wide at base and narrowed thence toward apex; shoulders conically produced, but apex of cone obtuse, not tuberculated; surface very roughly punctured near base, more finely so toward middle, color dark brown or blackish, thinly variegated with grayish pile. Body beneath tawny-brown; abdomen in middle glossy blackish, and sides spotted with black. Legs blackish, varied with tawny; hind tibiae dilated near apex (male). Length 5½ lines (male). Obydos, Lower Amazons.

“Similar in size and general figure to *Hypsioma syrinx* (*Hesycha syrinx*, Dj. Cat. and Fr. coll.), but differing in shape of basal joint of antennae and in constricted thorax.”

*Hypsioma tigrinata* Thomson, Physis, II, 1868, p. 49.

“Elongate, black, above everywhere variegated with gray and yellow pubescence, antennae black, pilose, segments from fourth broadly rosy basally, in third rosy portion about twice as long as rest. Prothorax disk bigibbose, base transversely unctate. Elytra prominent at humeri, base medially plane, obsolete and coarsely punctate, apices rounded. Abdomen very finely punctate, black, shining, laterally yellow. Legs black, with yellow pubescence. Length 13 mm.; width 6 mm. Cayenne.”

*Hypsioma sordida* Thomson, Physis, II, 1868, p. 48.

“FEMALE. Elongate; brownish black-black, covered with yellow pubescence. Head fuscous, impunctate; antennae cinereous, base of each segment slightly white.

Prothorax slightly uneven, unarmed. Elytra triangular, at humeri projecting, to behind middle coarsely and sparsely punctate, with four vague fasciae (two oblique median from sides descending to suture and two other longitudinal laterally behind middle); toward apex with some very vague white maculae, apices rounded. Body beneath laterally yellow pilose; legs yellow piled. Length 15 mm.; width 6.5 mm. Cayenne."

*Hyspioma insularis* Fisher, Proc. U. S. Natl. Mus., LXXXIII, 1935, p. 199.

"Robust, elongate-triangular, uniformly dark reddish-brown, with basal two-thirds of the antennal segments pale yellow, surface above and beneath concealed by the dense, pale brownish-white and whitish pubescence.

"Head with the front longer than wide, flat, sides parallel and elevated, flat between the antennal tubercles, which are strongly elevated, nearly contiguous at bases and obliquely divergent; surface with a narrow longitudinal groove extending from occiput to epistoma, coarsely, sparsely punctate, variegated with rather long, dense, recumbent, somewhat wavy, brownish-white and whitish pubescence (forming a spot on epistoma, two oblique ones on front). Eyes coarsely granulated, deeply emarginate, separated from each other on the top by twice the width of the upper lobe, the lower lobe longer than wide. Antennae about as long as the body, rather densely ciliate beneath, densely clothed with short, recumbent pubescence, which is whitish on the basal two-thirds and variegated on the apical third of each segment; scape elongate, subcylindrical, strongly, rather abruptly clavate toward the apex, slightly longer than the fourth joint, which is two-thirds as long as the third, the third slightly arcuate.

"Pronotum two-thirds wider than long, slightly narrower at apex than at base; sides unarmed, slightly sinuate, feebly narrowed from base to apex; disk uneven, more or less tumid on each side of middle, feebly, narrowly, transversely depressed near base and anterior margin; surface sparsely, coarsely, irregularly punctate, variegated with long, dense, more or less wavy, brownish-white and whitish pubescence. Scutellum strongly transverse, broadly rounded at apex, longitudinally glabrous at middle, densely clothed with long, recumbent, brownish-white pubescence at sides.

"Elytra four times as long as pronotum, distinctly wider than it is at base; humeri strongly elevated, each armed with a glabrous, obtuse tubercle; sides strongly, obliquely narrowed from base to near tips which are separately, broadly rounded; disk moderately convex; surface coarsely, sparsely, irregularly punctate, densely clothed with long, recumbent, brownish-white pubescence, and inconspicuously ornamented posteriorly with numerous short, narrow, wavy, white pubescent lines, (forming near middle, a transverse, oblique, wavy band extending to suture, behind with threadlike lines).

"Body beneath densely clothed with long, recumbent, brownish-white pubescence, which conceals the surface (more or less condensed to form maculae laterally); legs variegated with dark brown pubescence; last abdominal segment feebly emarginate or subtruncate at apex.

"Length 17 mm.; width 8 mm.

"Type locality: 'Chelston, Barbados, Lady Morris, 11-12-06, no. 834'.

"Wickham collection. U.S.N.M. no. 50976. Described from single specimen. Allied to *picticornis* Bates, differs in pubescence coloration."



The type was examined during the preliminary stages of this study, before the complex nature of the genus *Hypsioma* as then understood was realized. The species must be placed close to *Midamus* but the authors hesitate to place it definitely in any genus without a reexamination of the specimen.

*Cylicasta virescens* Aurivillius, Arkiv Zool., XIII, 9, p. 23.

"Small, fuscous, nearly everywhere covered with greenish pubescence, above punctate, beneath quite smooth. Antennae more than three times length of body, capillariform, segments three to eleven fuscous at base, narrowly annulate with white, scape at apex smoothly thickened, shorter than third, eleventh much longer than tenth. Eyes above almost contiguous, lower lobe elongate-ovate, longer than genae. Prothorax cylindrical, transverse, at base smoothly constricted. Scutellum apically rounded. Elytra deeply punctate, more or less variegated with irregular denuded fuscous maculae; maculae often forming a transverse fascia behind middle. Length 7-9 mm. Rio de Janeiro.

"Type in Reichsmuseum. This little species differs from Lacordaire's description of genus only in that the elytra are longer and in the much shorter first segment. Female unknown. One example almost entirely black."

Not *Cylicasta* but probably a new, related genus.

*Oncideres frontalis* Erichson, Arch. fur. Naturg., XIII, 1, 1847, p. 148.

"Fuscous, gray tomentose, front thrust in, white, with ochraceous fascia; elytra cylindrical, base strongly punctate, everywhere behind middle marked in black, entirely silky blots; thence ferruginous, macula before apex white; abdomen white at apex. Length 6.5 lines. Peru."

The above probably belongs in *Trestonia* or a related genus.

## INDEX

Page numbers in bold face indicate generic and specific descriptions; synonyms are in *italics*.

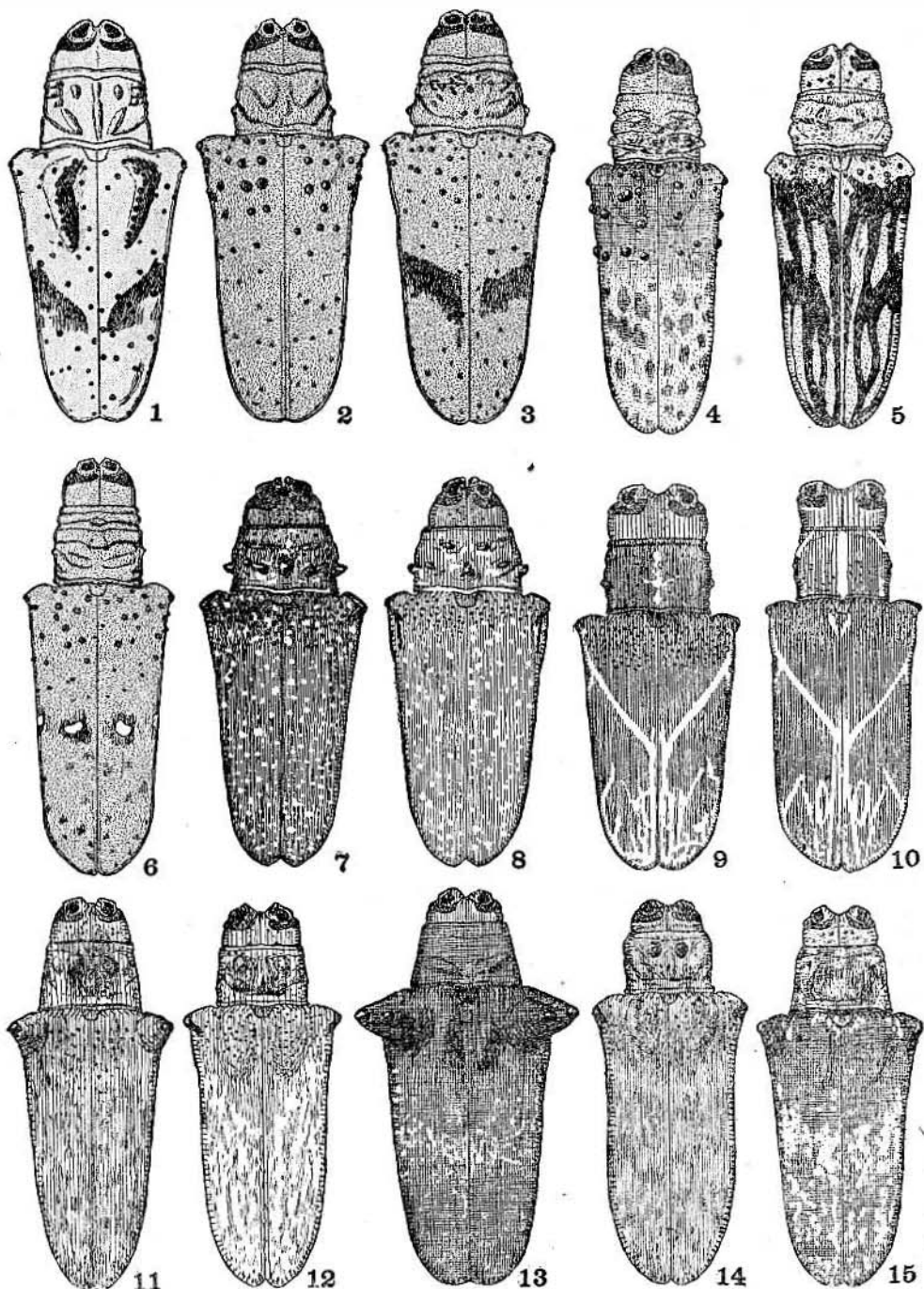
- Aenea n. gen., xiv, **110**  
*conspersa* Auriv., **110**
- Agaritha n. gen. xiv, **78**  
*iolaia* n. sp., **79**
- Alexera n. gen., xiv, **119**  
*barii* Jek., **120**
- Apamanta* Lac., **135**
- Apamauta Thoms., xiv, **135**  
*hebes* Thoms., **135**, **137**  
*lineolata* Thoms., **135**  
*pubescens*, Thoms, **135**, **137**
- Apocoptoma Thoms., xiii, **82**  
*chabrillicii* Thoms., **287**  
*fasciatus* Luc., **183**, **199**
- Bacuris Goun., xi, **288**  
*sexvittatus* Bates, **288**
- Beta n. gen., xii, **137**  
*doris* Thoms., **138**
- Bucoides, n. gen., xiv, **80**  
*egens* Erichs., **81**
- Cacostola F. and G., x, xi, xii, xiii, **253**  
*braziliensis* Thoms., **254**, **265**  
*clorinda* n. sp., **254**, **266**  
*flexicornis* Bates, **254**, **261**  
*fusca* Thoms., **255**, **263**  
*grisea* n. sp., **254**, **268**  
*leonensis* n. sp., **255**, **259**  
*nitida* n. sp., **254**, **258**  
*ornata* Fleut. and Sal., **245**, **255**  
*rugicollis* Bates, **254**, **263**  
*simplex* Pasc., **255**, **262**  
*sirena* n. sp., **255**, **267**  
*sulcipennis* Melz., **265**  
*vagelineata* Fair. and Germ., **254**, **255**  
*variegata* n. sp., **254**, **260**  
*zanao* n. sp., **254**, **256**
- Cerambyx Linn.  
*miliaris* Voet, **343**  
*quadricornis* Oliv., **290**
- Charoides n. gen., xiii, xiv, xv, **55**  
*antennata* n. sp., **57**, **71**  
*cruda* Erichs., **57**, **64**  
*distincta* n. sp., **57**, **77**  
*fulvofasciata* n. sp., **56**, **74**  
*hebes* n. sp., **57**, **59**  
*litura* n. sp., **57**, **62**  
*lycimnia* n. sp., **57**, **72**  
*pagana* Pasc., **57**, **58**  
*pallida* n. sp., **57**, **69**  
*picticornis* Bates, **56**, **76**  
*pulla* n. sp., **57**, **65**  
*sodalis* n. ssp., **57**, **72**  
*soma* n. sp., **57**, **67**  
*subcostata* n. sp., **57**, **61**  
*thysbe* n. sp., **57**, **68**
- Cherentes Goun., x, **292**  
*niveilateris* Thoms., **292**
- Chitron n. gen., x, **404**  
*mniszecchii* Buq., **404**
- Cicatrodea n. gen., xii, **223**  
*bahia* n. sp., **224**  
*monima* n. sp., **224**, **225**
- Cipriscola n. gen., xiii, **82**  
*fasciata* Thoms., **83**
- Clavidesmus n. gen., x, **293**  
*heterocera* Buq., **294**  
*metallicus* Thoms., **294**, **295**
- Clytemaestra Thoms., xi, **1**, **85**  
*adpersa* Cast., **85**  
*odspersa* Thoms., **85**  
*alhisparsa* Germ., **87**  
*bonariensis* Thoms., **87**  
*tumulosus* Thoms., **1**
- Cordites n. gen., xii, **232**  
*armillata* Thoms., **232**  
*modesta* Melz., **232**, **234**
- Cydros Pasc., xi, **251**  
*leucurus* Pasc., **251**, **252**
- Cylicasta Thoms., xi, **269**  
*coarctata* Bates, **270**, **272**  
*liturata* Fab., **270**  
*nysa* n. sp., **270**, **274**  
*terminata* Buq., **270**, **273**  
*virescens* Auriv., **408**
- Delilah n. gen., xv, **53**  
*gilvicornis* Thoms., **54**
- Ecthoa Pasc., x, **289**  
*quadricornis* Oliv., **290**
- Ephiales n. gen., xiii, **218**  
*crtacea* Bates, **219**
- Esonius n. gen., xii, **144**  
*panopus* n. sp., **145**
- Eudesmus Serv., x, **297**  
*caudalis* Bates, **298**  
*diopites* n. sp., **298**, **303**  
*fascinus* Serv., **298**, **304**  
*ferrugineus* Thoms., **298**  
*grisescens* Serv., **298**, **301**  
*heterocera* Buq., **294**  
*metallicus* Thoms., **295**  
*niveilateris* Thoms., **292**  
*posticalis* Guér., **304**  
*rubefactus* Bates, **298**, **300**  
*seminivorus* Buq., **296**  
*sexvittatus* Bates, **288**
- Eupates n. gen., xii, **220**  
*multinotata* Melz., **221**
- Euthina n. gen., xiv, **106**  
*ceres* n. ssp., **107**, **108**  
*nerissa* n. sp., **107**, **108**  
*rodens* Bates, **107**
- Furona n. gen., xiv, **96**  
*corniculata* Bates, **98**  
*degenera* Bates, **97**

- Glyphaga Thoms., xii, 125  
   *lignosa* Thoms., 126  
   *paupera* Bates, 124  
   *xylina* Bates, 128  
*Hesycha* Dej., 100  
*Hesycha* Fairm. and Ger., xiv, 129  
   *albilatera* Pasc., 227  
   *barii* Jek., 120  
   *cousimilis* Thoms., 130, 133  
   *cretacea* Bates, 219  
   *cribripennis* Fairm. and Ger., 131, 134  
   *humilis* Dej., 157  
   *jaspidea* Bates, 158  
   *lateralis* Thoms., 130, 131  
   *lineolata* Dej., 135  
   *liturata* Bates, 157  
   *maculicornis* Thoms., 130, 134  
   *maculosa* Bates, 167  
   *miniata* Dej., 150  
   *nyphonoides* Pasc., 160  
   *paupercula* Thoms., 131, 133  
   *pumilio* Dej., 100  
   *variabilis* n. sp., 130, 131  
   *xylina* Bates, 128  
*Hesychotypa* Thoms., xiv, 148  
   *aeropa* n. sp., 150, 155  
   *archippa* n. sp., 149, 165  
   *bimaculata* n. sp., 149, 161  
   *cedestes* n. sp., 149, 173  
   *crocea* n. sp., 149, 170  
   *dola* n. sp., 149, 164  
   *fulvoirrorata* Thoms., 150, 169  
   *heraldica* Bates, 149, 171  
   *jaspidea* Bates, 150, 158  
   *lirissa* n. sp., 150, 153  
   *liturata* Bates, 150, 157  
   *maculosa* Bates, 149, 167  
   *miniata* Thoms., 149, 150  
   *nyphonoides* Pasc., 150, 160  
   *phaola* n. sp., 150, 163  
   *subfasciata* n. sp., 149, 152  
   *turbida* Bates, 149, 168  
*Hylus* n. gen., xii, 104  
   *dubius* n. sp., 105  
*Hypomia* Thoms.  
   *grisea* Fleut. and Sallé, 52  
*Hypselomus* Bates, 18  
*Hypselomus* Perty, xi, 1, 85  
   *basalis* Thoms., 37  
   *crassipes* Bates, 83  
   *cristata* Perty, 1  
   *crudus* Erich., 64  
   *dimidiatus* Bates, 64  
   *egens* Erichs., 81  
   *lignicolor* Bates, 120  
   *obscorellus* Bates, 406  
   *paganus* Pasc., 58  
   *picticornis* Bates, 76  
   *pupillatus* Pasc., 175  
   *rodeus* Bates, 107  
   *seniculus* Bates, 113  
   *simplex* Bates, 40  
   *syrinx* Bates, 101  
   *variolosus* Pasc., 4  
*Hysioma* Jek., 3  
*Hysioma* Serv., xii, xiii, 18  
   *acromii* Dalm., 13  
   *adpersus* Cast., 85  
   *affinis* Dej., 26  
   *affinis* Thoms., 19, 48  
   *albisparsa* Germ., 87  
   *amazonica* Thoms., 50  
   *amydon* n. sp., 20, 36  
   *aristonia* n. sp., 19, 47  
   *attalia* n. sp., 19, 45  
   *axillaris* Thoms., 16  
   *barii* Jek., 120  
   *basalis* Thoms., 20, 37  
   *bipunctata* Jek., 175  
   *chapadensis* n. sp., 20, 22  
   *charila* n. sp., 19, 43  
   *chaseba* n. sp., 20, 30  
   *constellata* Thoms., 20, 28  
   *corniculata* Bates, 98  
   *crassipes* Bates, 83  
   *cruda* Erich., 64  
   *dejeanii* Thoms., 20, 26  
   *difficilis* Lam., 405  
   *dimidiatus* Bates, 64  
   *doris* Thoms., 138  
   *egens* Erichs., 81  
   *fasciata* Thoms., 83  
   *gemmata* Blanch., 4  
   *gibbera* Serv., 20, 21  
   *gibbera* Thoms., 21  
   *gilvicornis* Thoms., 54  
   *globifera* Fab., 4  
   *grisea* Fleut. and Sallé, 52  
   *hezia* n. sp., 19, 46  
   *inornata* Thoms., 19, 41  
   *insularis* Fish., 407  
   *lignicolor* Bates, 120  
   *lyca* n. sp., 20, 34  
   *nesiope* n. sp., 20, 33  
   *obliquator* Fab., 114  
   *obscorellus* Bates, 406  
   *omoplata* Lac., 13  
   *opalina* n. sp., 19, 44  
   *pagana* Pasc., 58  
   *parallela* Melz., 405  
   *picticornis* Bates, 72, 76  
   *prodigiosa* Thoms., 118  
   *pylades* n. sp., 20, 31  
   *rimosa* n. sp., 20, 24  
   *robusta* n. sp., 20, 39  
   *rodeus* Bates, 107  
   *seniculus* Bates, 113  
   *signaticornis* Thoms., 76  
   *simplex* Bates, 19, 40  
   *sordida* Thoms., 406  
   *steinbachi* n. sp., 19, 27  
   *subfasciata* Thoms., 64  
   *syrinx* Bates, 101  
   *tigrinata* Thoms., 406  
*Ischiocentra* Thoms., xii, xiii, 226  
   *albilatera* Pasc., 227  
   *alternans* Auriv., 227, 229  
   *armillata* Thoms., 232  
   *clavata* Thoms., 227  
   *costa-limai* Melz., 227, 229  
   *cretacea* Bates, 219

- fulviorrata* Thoms., 169  
*heraldica* Bates, 171  
*humilis* Thomas., 157  
*jaspidea* Bates, 158  
*liturata* Bates, 157  
*maculosa* Bates, 167, 168  
*modesta* Melz., 234  
*multinotata* Melz., 221  
*nobilitata* Thoms., 227, 231  
*nyphonoides* Pasc., 160  
*quadrisingnata* Thoms., 227, 230  
*signifera* Buc., 286  
*xylina* Bates, 128  
*Ischioderes* n. gen., xiii, 184  
   *encideroides* n. sp., 185  
*Jamesia* Jek., xii, 3  
   *gemmata* Blanch., 4  
   *globifera* Fab., 4  
   *lineata* Fish., 10  
   *multivittata* Bates, 11  
   *papulenta* Thoms., 6  
   *phileta* n. sp., 8  
   *pupillata* Pasc., 175  
   *pyropina* n. sp., 9  
*Lachaerus* Thoms., x, 295  
   *seninivorus* Buc., 296  
*Lachnia* Serv., xiii, 11  
   *subcincta* Serv., 12  
*Lamia* Fab.  
   *acromii* Dalm., 13  
   *albisparsa* Germ., 87  
   *amputator* Fab., 351  
   *bispinator* Fab., 290  
   *diana* Oliv., 397  
   *dromedaria* Voet., 250  
   *fragifera* Eby, 243  
   *globifera* Fab., 4  
   *impluviata* Germ., 373  
   *obliquator* Fab., 114  
   *repandator* Fab., 341  
   *saga* Dalm., 321  
   *ulcerosa* Germ., 315  
   *vomicosa* Germ., 321  
*Lampedusa* n. gen., xiv, 112  
   *obliquator* Fab., 112, 114  
   *seniculus* Bates, 112, 113  
*Laricia* Thoms., 297  
   *ferrugineus* Thoms., 298  
*Lesbates* n. gen., xi, 12  
   *acromii* Dalm., 13  
   *carissima* n. sp., 14  
*Leus* n. gen., xiv, 222  
   *piperella* n. sp., 222  
*Lochmaeocles* Bates, xii, xiii, xv, 189  
   *alboplagiatus* n. sp., 190, 193  
   *basalis* n. sp., 191, 212  
   *batesi* Auriv., 190, 192  
   *bolivianus* n. ssp., 207  
   *callidryas* Bates, 190, 201  
   *confertus* Auriv., 218  
   *congener* Thoms., 218  
   *consobrinus* n. sp., 191, 205  
   *cornuticeps* Schffr., xv, 190, 196  
   *fasciatus* Luc., 190, 199  
   *federalis* n. ssp., 190, 197  
   *hondurensis* n. sp., 191, 204  
   *laticinctus* n. sp., 190, 200  
   *marmoratus* Csy., xv, 191, 208  
   *obliquatus* n. sp., 191, 215  
   *pacificus* n. ssp., 190, 198  
   *plucher* n. sp., 191, 211  
   *sladeni* Gah., 191, 210  
   *sparsus* Bates, 190, 195  
   *tessellatus* Knoll, 196  
   *tessallatus* Thoms., 191, 202  
   *vermiculatus* Thoms., 190, 216  
   *vestitus* Bates, 191, 207  
   *zonatus* n. sp., 191, 214  
*Lochmaeodes* Auriv., 189  
*Lydipta* Thoms., xv, 100  
   *pumilio* Thoms., 100  
*Marensis* n. gen., xii, 94  
   *tybalmoides* n. sp., 95  
*Microcanus* n. gen., xi, 400  
   *minor* Bates, 401  
*Midamus* n. gen., xii, xiii, 141  
   *hecate* n. sp., 141  
   *santaremsis* n. sp., 141, 143  
*Oncideres* Serv., x, xv, 189, 309  
   *agrotata* Thoms., 314, 330  
   *albomaculata* n. sp., 311, 347  
   *albomarginata* Thoms., 309, 334  
   *amazona* n. ssp., 311, 323  
   *amputator* Fab., 312, 351  
   *apicalis* n. sp., 312, 349  
   *argentata* n. sp., 311, 312, 353  
   *attenuata* Thoms., 400  
   *bondari* Melz., 314, 393  
   *bouchardi* Bates, 311, 355  
   *brevifasciata* n. ssp., 314, 360  
   *bucki* Melz., 313, 358  
   *callidryas* Bates, 195, 201  
   *canidia* n. sp., 315, 365  
   *castanea* n. sp., 314, 370  
   *cephalotes* Bates, 311, 313, 343  
   *cervina* Thoms., 310, 332  
   *chevrolatii* Thoms., 311, 344  
   *cingulata* Say, xv, 310, 313, 385  
   *cingulatus* Ham., 382  
   *colombiana* n. ssp., 311, 324  
   *conferta* Auriv., 218  
   *congener* Thoms., 218  
   *crassicornis* Bates, 310, 340  
   *crocala* n. sp., 310, 317  
   *dalmatii* Thoms., 343  
   *dejeani* Thoms., 310, 367  
   *digna* Bates, 314, 327  
   *diana* Bates, 344  
   *diana* Oliv., 313, 397  
   *etiolata* n. sp., 310, 318  
   *fabricii* Thoms., 344  
   *fasciatus* Luc., 199  
   *fisheri* n. sp., 314, 395  
   *frontalis* Erichs., 408  
   *fulvoguttata* n. sp., 311, 356  
   *fulvostillata* Bates, 314, 348  
   *fulvus* Bates, 326  
   *gemmata* n. sp., 311, 350  
   *germarii* Thoms., 311, 320  
   *gibbosa* Thoms., 313, 339  
   *guttulata* Thoms., 313, 314, 380  
   *guttulata* auct., 321

- gutturator* Bruch, 336  
*heterocera* Thoms., 315  
*humeralis* Thoms., 314, 331  
*ilaire* n. sp., 310, 319  
*impluviata* Germ., 312, 373  
*intermedia* n. sp., 312, 398  
*irrorata* Meiz., 311, 336  
*thermimeri* Forst., 352  
*limpida* Bates, 311, 324  
*macra* Thoms., 310, 373  
*maculosus* Redten., 400  
*maxima* n. sp., 313, 335  
*miliaris* Voet, 343  
*miniata* Thoms., 310, 369  
*minuta* Thoms., 314, 372  
*modesta* n. sp., 312, 379  
*multicincta* n. sp., 311, 346  
*mydas* Luc., 183  
*nivea* n. sp., 313, 324  
*ocellaris* Bates, 315, 361  
*ocularis* Thoms., 312, 374  
*ophthalmalis* n. sp., 312, 392  
*pallescens* Csy., 385  
*pectoralis* Thoms., 314, 376  
*phaetusa* n. sp., 312, 338  
*philosipes* n. sp., 314, 328  
*pittieri* Gah., 312, 357  
*pocilla* Bates, 314, 389  
*polychroma* n. sp., 312, 377  
*praecidens* Csy., 385  
*pulchellus* Bates, 312, 371  
*punctata* n. sp., 313, 390  
*pustulata* Lec., xv, 315, 364  
*pustulata* Thoms., 367  
*pustulatus* Essig., 382  
*putator* High, 364  
*putator* Horn, 382  
*putator* Thoms., 315, 359  
*quercus* Skin., xv, 310, 313, 383  
*repandator* Fab., 310, 341  
*rhodosticta* Bates, xv, 313, 382  
*saga* Baln., 311, 321  
*satyra* Bates, 312, 326  
*schreiteri* Bruch, 314, 391  
*scitula* Bates, 309, 399  
*senilis* Bates, 315, 362  
*sladeni* Gah., 210  
*sobrina* n. sp., 311, 354  
*stillata* Aur., 313, 381  
*subtropicus* Csy., 385  
*tessellatus* auct., 208  
*tessellatus* Bates, 207, 218  
*tessellatus* Schffr., 208  
*tessellatus* Thoms., 202  
*texana* Herr., 385  
*texana* Horn, 385  
*trinodata* Csy., 382  
*trinodatus* Essig., 364  
*tuberculata* Thoms., 312, 396  
*ulcerosa* Germ., 310, 315  
*vermiculata* Thoms., 216  
*vicina* Thoms., 315  
*voetii* Thoms., 314, 394  
*vomica* Germ., 321
- Pachypcza*  
*simplex* Pasc., 262
- Periergates* Lac., xi, 306  
*badeni* Bates, 307, 308  
*chiriquensis* Bates, 307, 308  
*rodriguezii* Lac., 307  
*Peritrox* Bates, xi, 87  
*denticollis* Bates, 88  
*nigromaculatus* Auriv., 91  
*perbra* n. sp., 93  
*vermiculatus* n. sp., 90
- Plerodia* Thoms., xiv, 100  
*conspersa* Auriv., 110  
*degenera* Bates, 97  
*obliquator* Fab., 114  
*pygmaea* Thoms., 101  
*singularis* Thoms., 103  
*spuria* Thoms., 103  
*syrinx* Bates, 101  
*variegata* Auriv., 104
- Priscatoides* n. gen., xii, 146  
*tatila* n. sp., 147
- Psylloxoxus* Thoms., xi, 304  
*griseocinctus* Thoms., 305
- Saperda* Fab.  
*albella* Schön., 397  
*capreola* Germ., 278  
*cingulata* Say, 385  
*liturata* Fab., 270
- Sternycha* n. gen., xii, 121  
*approximata* n. sp., 122, 123  
*paupera* Bates, 122, 124  
*sternalis* n. sp., 122
- Sulpitus* n. gen., xiii, 139  
*lilla* n. sp., 140  
*Talasius* Buq., 289  
*quadricornis* Oliv., 290
- Taricanus* Thoms., x, 402  
*minor* Bates, 401  
*truquii* Thoms., xv, 403
- Trachysomus* Serv., xii, 235  
*adpersus* Cast., 85  
*buquetii* Thoms., 236, 239  
*camelus* Buq., 236, 247  
*dromedarius* Buq., 248  
*dromedarius* Voet, 235, 250  
*elephas* Buq., 250  
*faunus* Erich., 290  
*fragifer* Bates, 240  
*fragifer* Kby., 236, 243  
*gibbosus* Buq., 236, 245  
*hydaspes* n. sp., 236  
*mexicanus* n. sp., 236, 240  
*peregrinus* Thoms., 236, 237  
*santarensis* Bates, 243  
*surdus* n. sp., 236, 242  
*thomsoni* Auriv., 236, 248
- Trachytoxus* Thoms., 251  
*scabrosus* Thoms., 252
- Trestonia* Buq., xi, xiii, 275  
*albilatera* Pasc., 227  
*assubina* Bates, 276, 279  
*capreola* Germ., 276, 278  
*ceara* n. sp., 276, 280  
*chabrilacii* Thoms., 287  
*chevrolatii* Buq., 276, 277  
*coarctata* Bates, 272  
*confusa* n. sp., 276, 282

- forticornis* Buq., 276  
*fulgurata* Buq., 275, 286  
*mniszchii* Buq., 404  
*pulcherrima* n. sp., 276, 285  
*pyralis* n. sp., 276, 283  
*ramuli* Bates, 276, 281  
*signifera* Buq., 275, 286  
*terminata* Buq., 273  
*Tritania* n. gen., xi, 51  
   *grisea* Fleut. and Sallé, 52  
*Truncatoides* n. gen., xiii, 16  
   *axillaris* Thoms., 16  
*Tulcus* n. gen., xiv, 50  
   *amazonica* Thoms., 50  
*Tybalmia* Thoms., xii, xiv, 174  
   *cocca* Bates, 175, 180  
   *funeraria* Bates, 175, 182  
   *heraldica* Bates, 171  
   *ianthe* n. sp., 175, 178  
   *jaspidea* Bates, 158  
   *maculosa* Bates, 167  
   *mydas* Lucas, 175, 183  
   *nyphonoides* Pasc., 160  
   *orbis* n. sp., 175, 177  
   *pixe* n. sp., 175, 179  
   *pupillata* Pasc., 175  
   *tetrops* Bates, 175, 182  
   *turbida* Bates, 168  
*Typhlocerus* n. gen., xiii, 117  
   *prodigiosus* Thoms., 118  
*Vcnustus* n. gen., xiv, 115  
   *zeteki* n. sp., 116



1. *Hypselonus cristata*, ♂, x 2.2, p. 1.

2. *Jamesia globifera*, ♂, x 2.5, p. 4.

3. *J. papulenta*, ♀, x 2.5, p. 6.

4. *J. phileta*, ♂, x 3, p. 8.

5. *J. multivittata*, ♂, x 2.3, p. 11.

6. *J. pyropina*, ♂, x 2.5, p. 9.

7. *Clytemnestra adspersa adspersa*, ♂, x 3, p. 85.

8. *C. adspersa albisparsa*, ♀, x 3, p. 87.

9. *Cicatroidea babia*, ♂, x 4, p. 224.

10. *C. moxima*, ♀, x 3.3, p. 225.

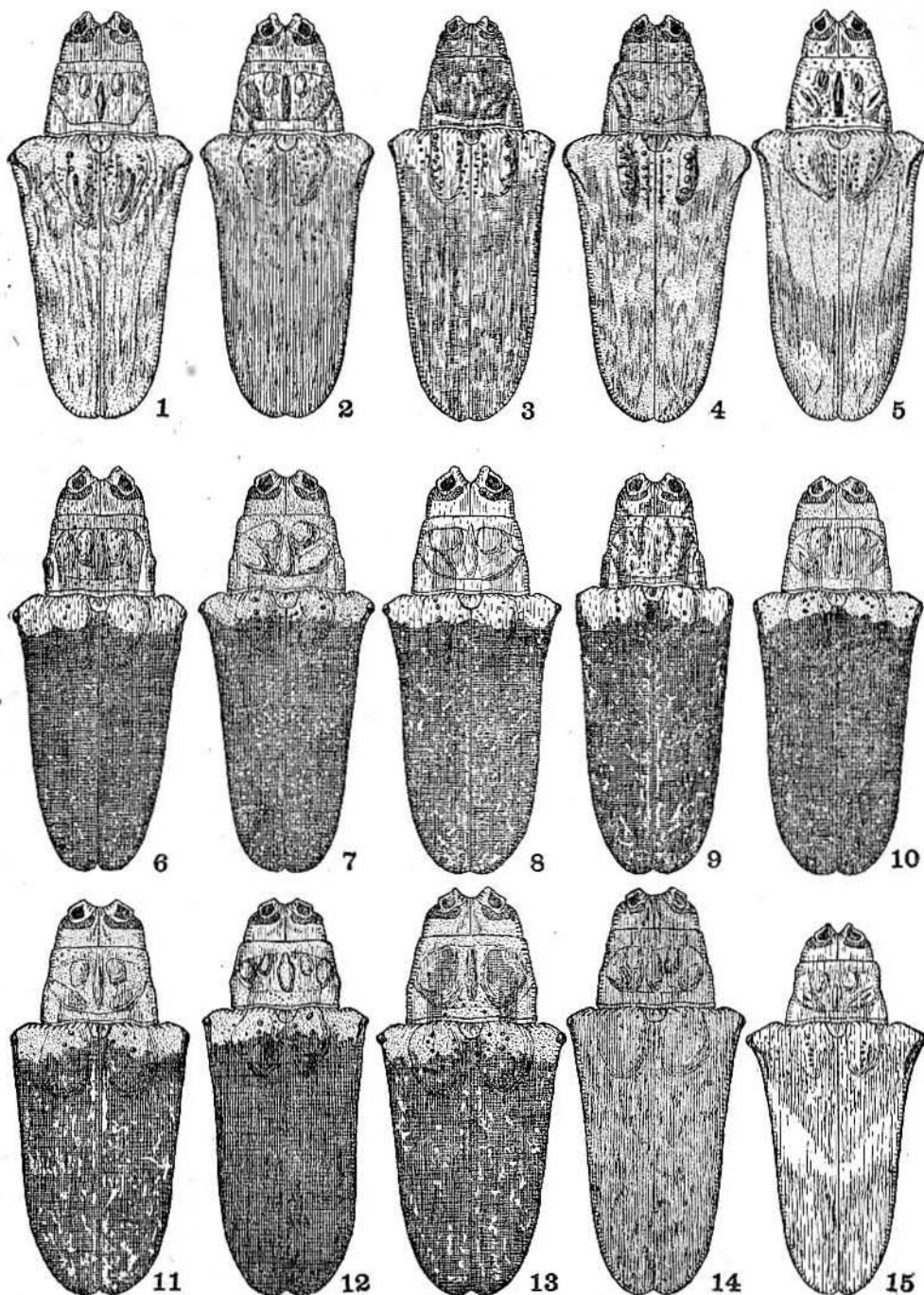
11. *Agaritba iolua*, ♀, x 4.3, p. 79.

12. *Sulphilus lilla*, ♂, x 3.5, p. 140.

13. *Typhlocerus prodigiosus*, ♀, x 4, p. 118.

14. *Priscatoides latila*, ♀, x 4.3, p. 147.

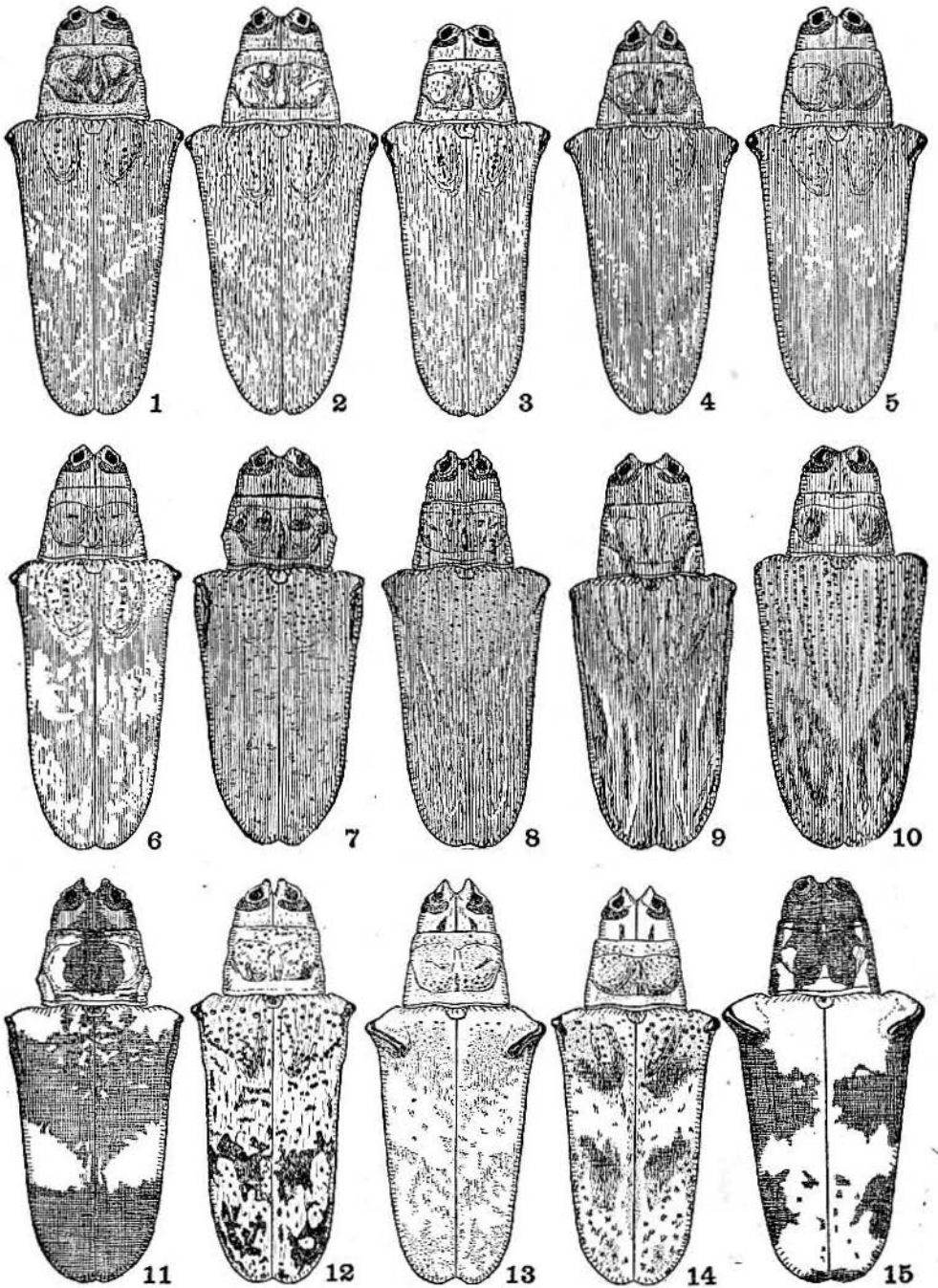
15. *Delilah gilvicornis*, ♂, x 3.3, p. 54.



1. *Hysiosoma gibbera*, ♂, x 2.5, p. 21.
2. *H. chapadensis*, ♂, x 3.5, p. 22.
3. *H. rimosa*, ♂, x 3.7, p. 24.
4. *H. dejeanii*, ♂, x 3.2, p. 26.
5. *H. steinbachi*, ♀, x 3, p. 27.
6. *H. constellata*, ♂, x 3.4, p. 28.
7. *H. chaseba*, ♂, x 4.2, p. 30.
8. *H. pylades*, ♂, x 3.7, p. 31.

9. *H. nesiope*, ♂, x 4, p. 33.
10. *H. lycu*, ♀, x 3.5, p. 34.
11. *H. amydon*, ♂, x 4, p. 36.
12. *H. basalis*, ♂, x 3.2, p. 37.
13. *H. robusta*, ♂, x 4, p. 39.
14. *H. simplex*, ♀, x 4, p. 40.
15. *H. inornata*, ♀, x 3.6, p. 41.





1. *Hypsioma charila*, ♀, x 4, p. 43.

2. *H. opalina*, ♀, x 3.8, p. 44.

3. *H. attalia*, ♀, x 3.3, p. 45.

4. *H. bezia*, ♂, x 4, p. 46.

5. *H. aristonis*, ♂, x 4, p. 47.

6. *H. affinis*, ♂, x 4, p. 48.

7. *Mavensis tybalmoides*, ♂, x 3.3, p. 95.

8. *Bucoides egeus*, ♂, x 4.2, p. 81.

9. *Alexera burii*, ♂, x 5, p. 120.

10. *Hylus dubius*, ♀, x 2.9, p. 105.

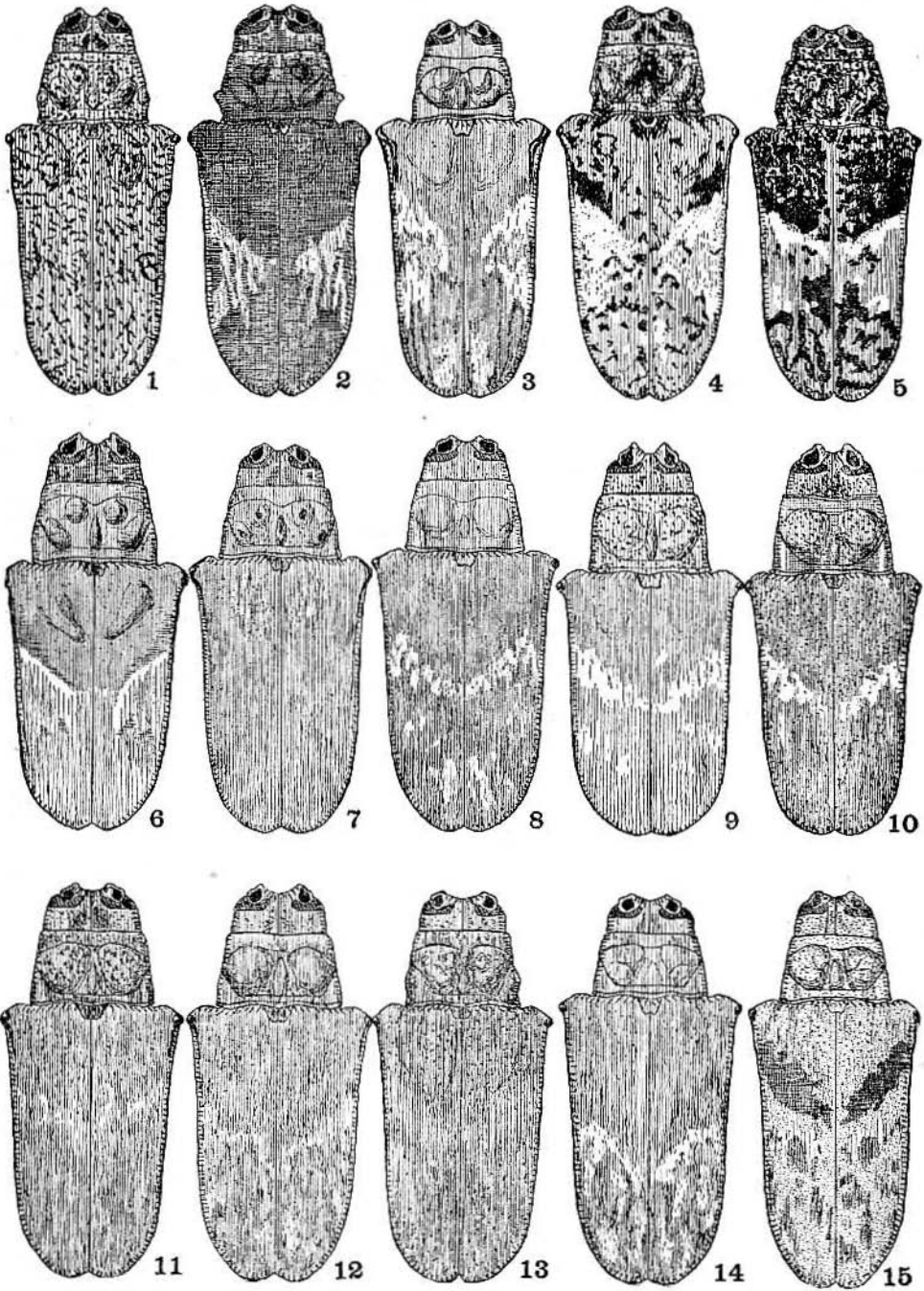
11. *Cipriscola fasciata*, ♂, x 3.5, p. 83.

12. *Tritania grisca*, ♂, x 3.2, p. 52.

13. *Lesbates acromii*, ♂, x 3.5, p. 15.

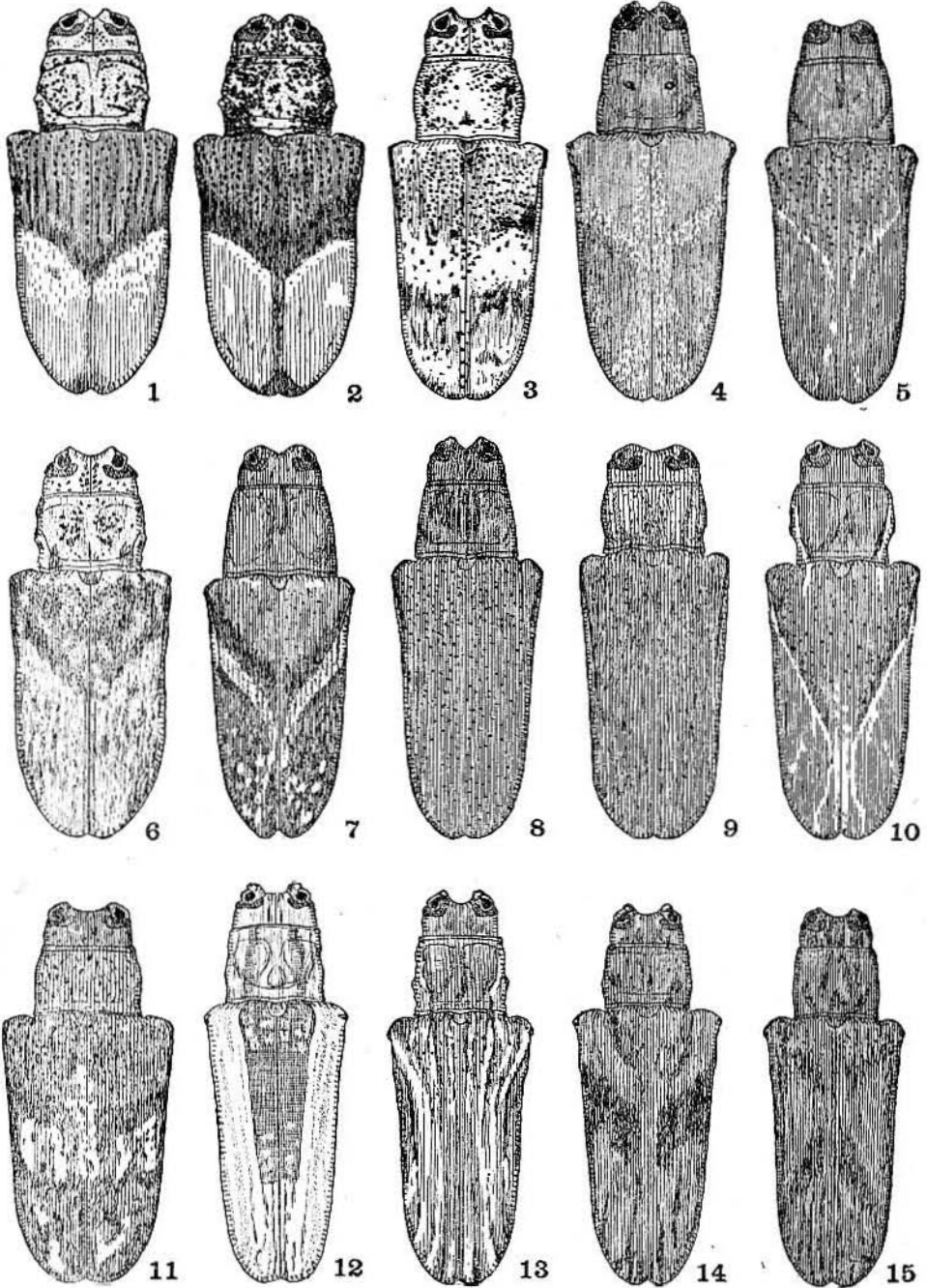
14. *L. carrissima*, ♂, x 3.8, p. 14.

15. *Truncatoides axillarioris*, ♂, x 3.6, p. 16.



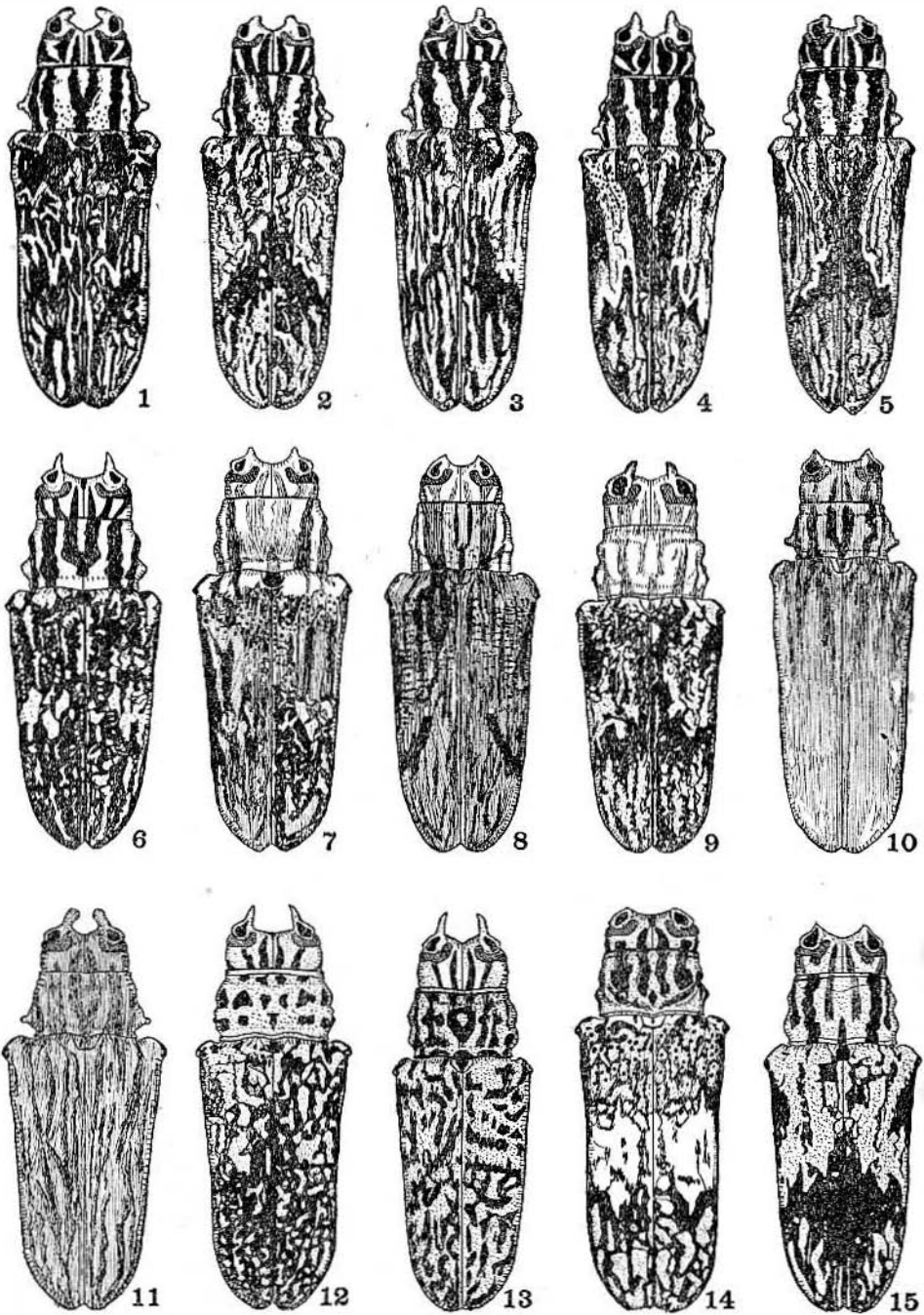
1. *Charoides pagana*, ♂, x 3, p. 58.
2. *C. hebes*, ♀, x 4, p. 59.
3. *C. subcostata*, ♀, x 3.5, p. 61.
4. *C. litura*, ♀, x 4.1, p. 62.
5. *C. cruda*, ♀, x 4, p. 64.
6. *C. pulla*, ♂, x 3.8, p. 65.
7. *C. soma*, ♀, x 4, p. 67.
8. *C. thysbe*, ♂, x 3, p. 68.

9. *C. pallida*, ♂, x 3.6, p. 69.
10. *C. lycimnia*, ♂, x 3, p. 72.
11. *C. antennata antennata*, ♀, x 3.8, p. 71.
12. *C. antennata socialis*, ♀, x 3.8, p. 72.
13. *C. fulvofasciata*, ♀, x 3.2, p. 74.
14. *C. picticornis*, ♀, x 3, p. 76.
15. *C. distincta*, ♀, x 3, p. 77.



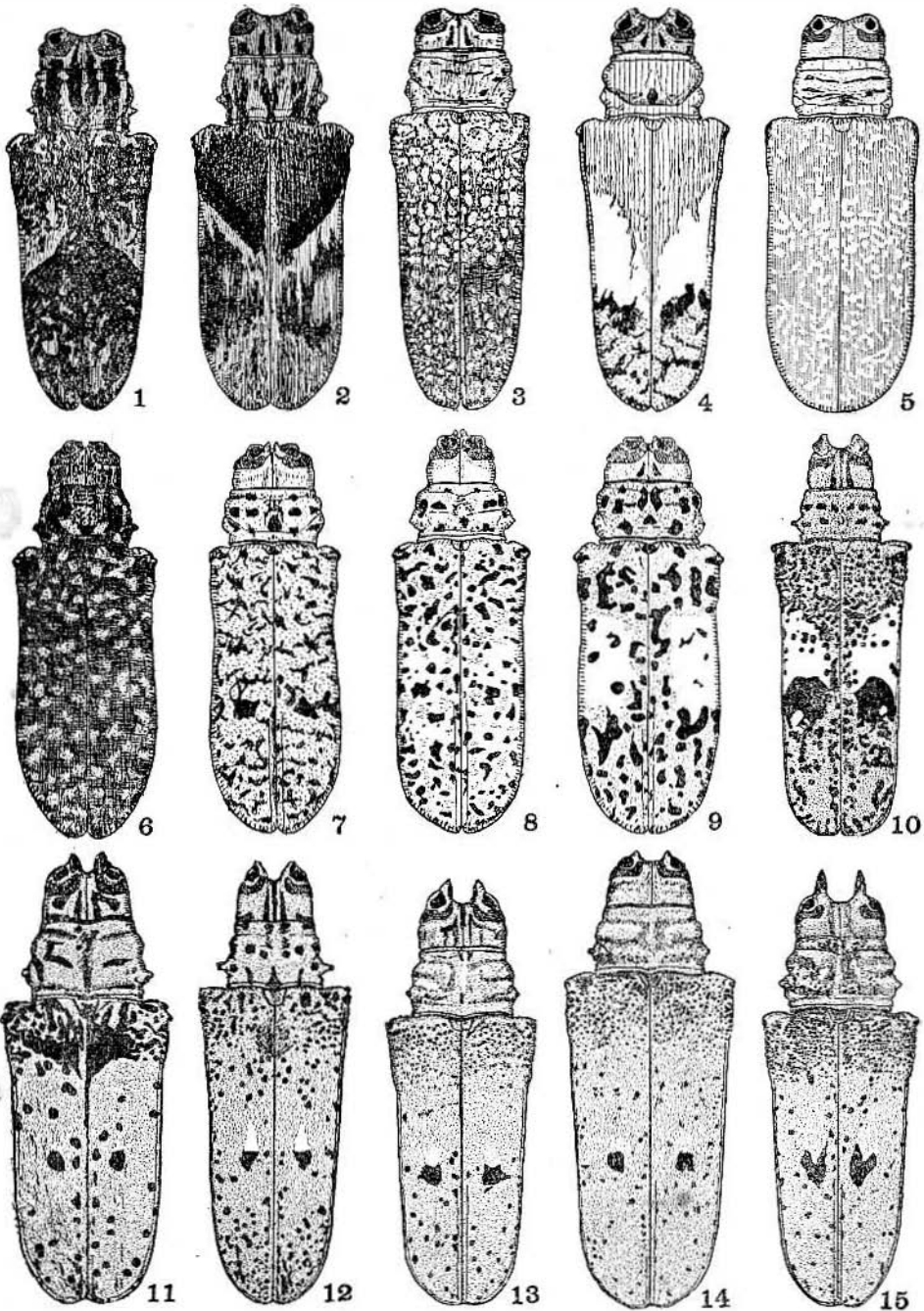
1. *Euthima rodens rodens*, ♂, x 5, p. 107.
2. *E. rodens ceres*, ♂, x 5, p. 108.
3. *E. nerissa*, ♂, x 6, p. 108.
4. *Furona corniculata*, ♂, x 4, p. 98.
5. *F. degenra*, ♂, x 5, p. 97.
6. *Venustus zeteki*, ♂, x 4, p. 116.
7. *Plerodia syrix*, ♂, x 4.5, p. 101.
8. *P. singularis*, ♂, x 5.5, p. 103.

9. *Lamjeduzza seniculus*, ♀, x 4.5, p. 113.
10. *L. obliquator*, ♂, x 5, p. 114.
11. *Aenea conspersa*, ♀, x 5.5, p. 110.
12. *Glyptbaga lignosa*, ♂, x 5.5, p. 126.
13. *G. xylina*, ♂, x 3.8, p. 128.
14. *Hesycha variabilis*, ♂, x 3.5, p. 131.
15. *H. punpercula*, ♂, x 6.5, p. 133.



1. *Hestychotypha mimata*, ♂, x 3, p. 150.
2. *H. subfasciata*, ♂, x 3.5, p. 152.
3. *H. lirissa*, ♂, x 3.25, p. 153.
4. *H. aequalis*, ♂, x 3.25, p. 155.
5. *H. liturata*, ♂, x 3.25, p. 157.
6. *H. jaspidea*, ♂, x 3.5, p. 158.
7. *H. nyphonoides*, ♂, x 3.5, p. 160.
8. *H. bimaculata*, ♀, x 4, p. 161.

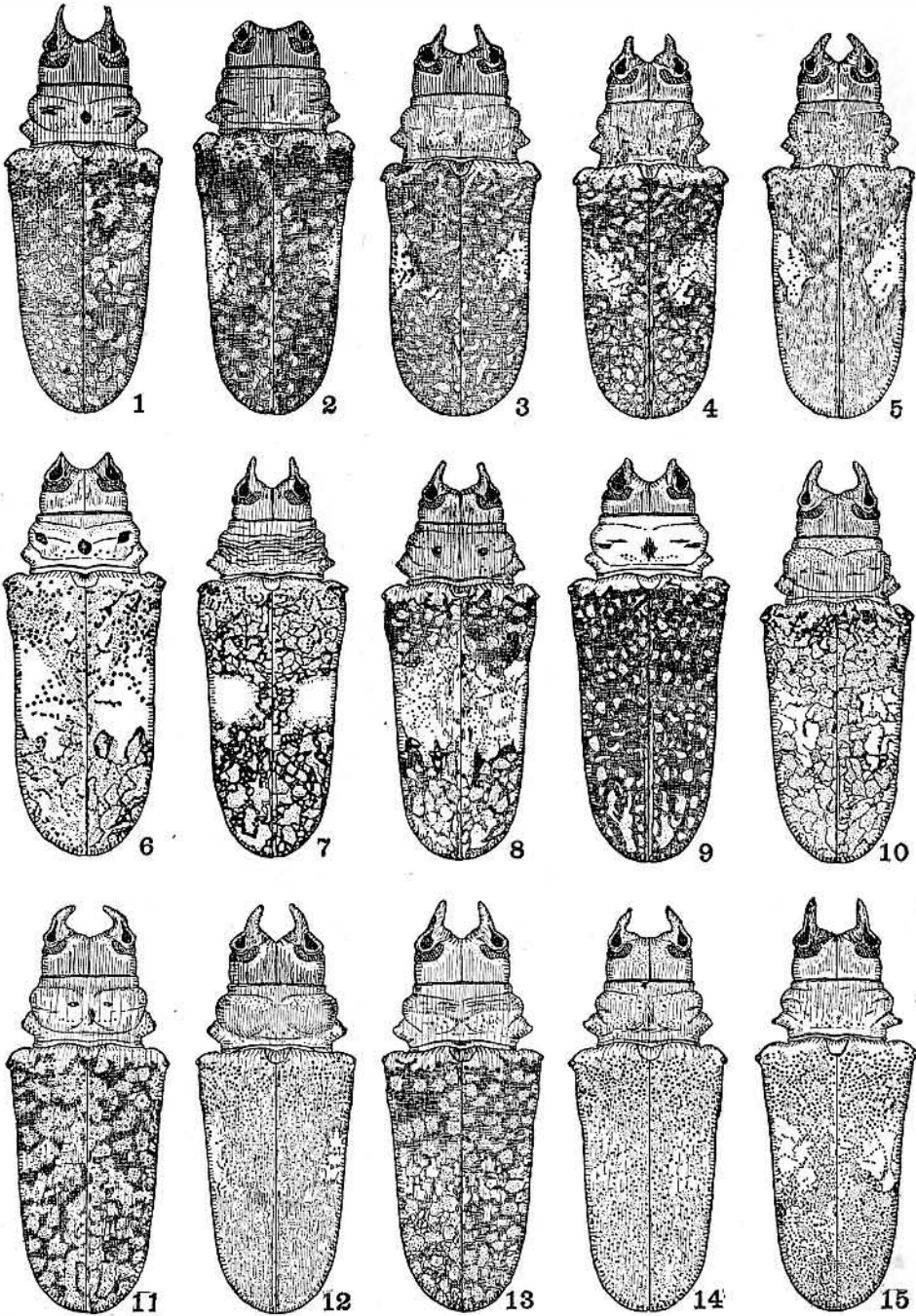
9. *H. phaula*, ♂, x 3.5, p. 163.
10. *H. idola*, ♀, x 3, p. 164.
11. *H. archiepupa*, ♂, x 3, p. 165.
12. *H. maculosa*, ♂, x 3.5, p. 167.
13. *H. turbida*, ♂, x 3, p. 168.
14. *H. fulvoirrorata*, ♀, x 3.75, p. 169.
15. *H. crocea*, ♀, x 3, p. 170.



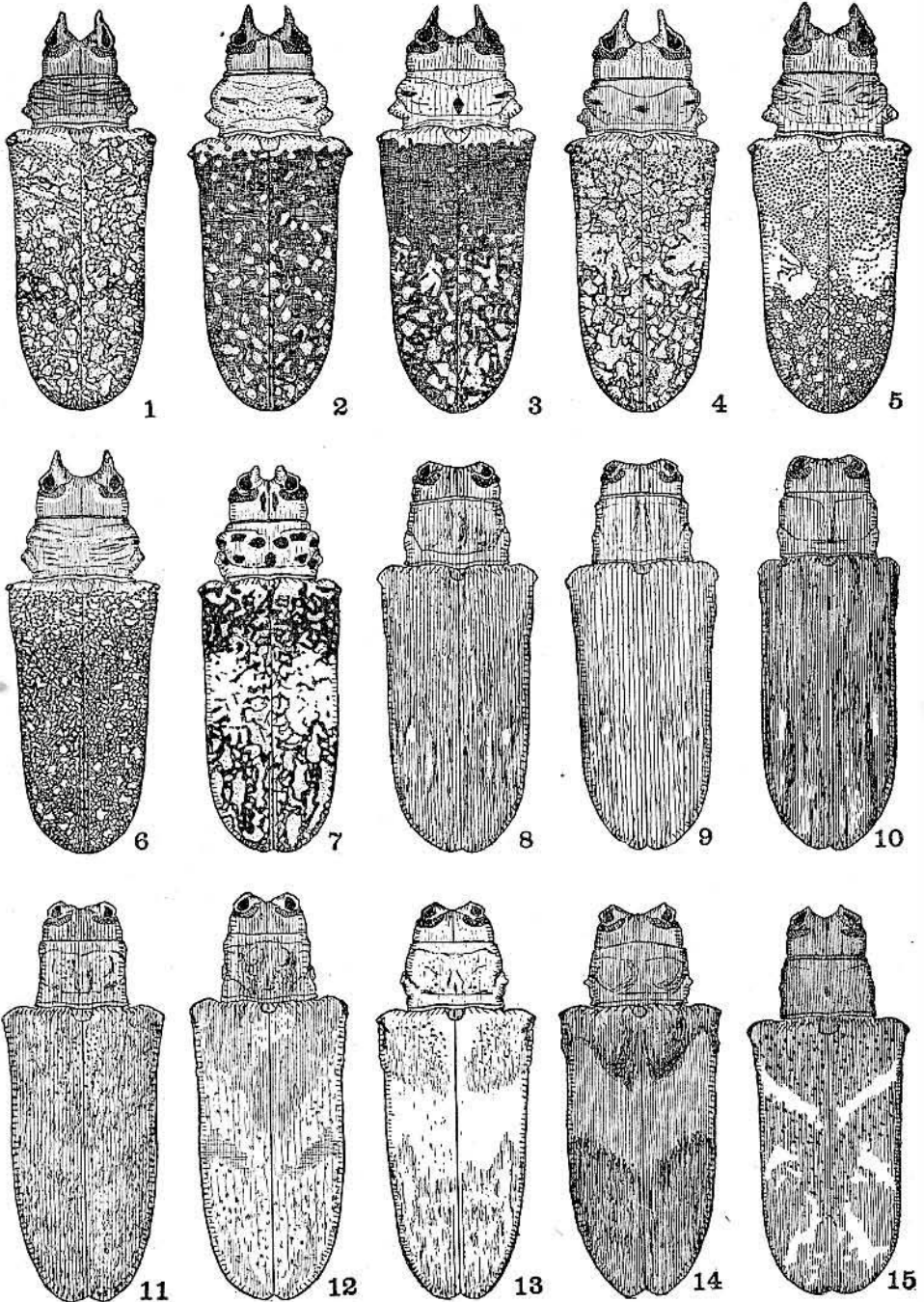
1. *Hesychotypa heraldica*, ♀, x 3.75, p. 171.
2. *H. celestes*, ♀, x 4, p. 173.
3. *Eupales multimotata*, ♂, x 3.8, p. 221.
4. *Leus piperella*, ♂, x 4.5, p. 222.
5. *Isebioideres oncideroides*, ♂, x 2.7, p. 185.
6. *Peritrox denticollis*, ♂, x 4.2, p. 88.
7. *P. vermiculatus*, ♂, x 4.5, p. 90.
8. *P. nigromaculatus*, ♂, x 3.5, p. 91.

9. *P. perbra*, ♀, x 3.6, p. 93.
10. *Tybalnia flavivaria*, ♂, x 2.5, p. 182.
11. *T. pupillata*, ♂, x 2.5, p. 175.
12. *T. orbis*, ♀, x 2.5, p. 177.
13. *T. iantha*, ♂, x 2.25, p. 178.
14. *T. plve*, ♀, x 2.25, p. 179.
15. *T. caeca*, ♂, x 2.1, p. 180.



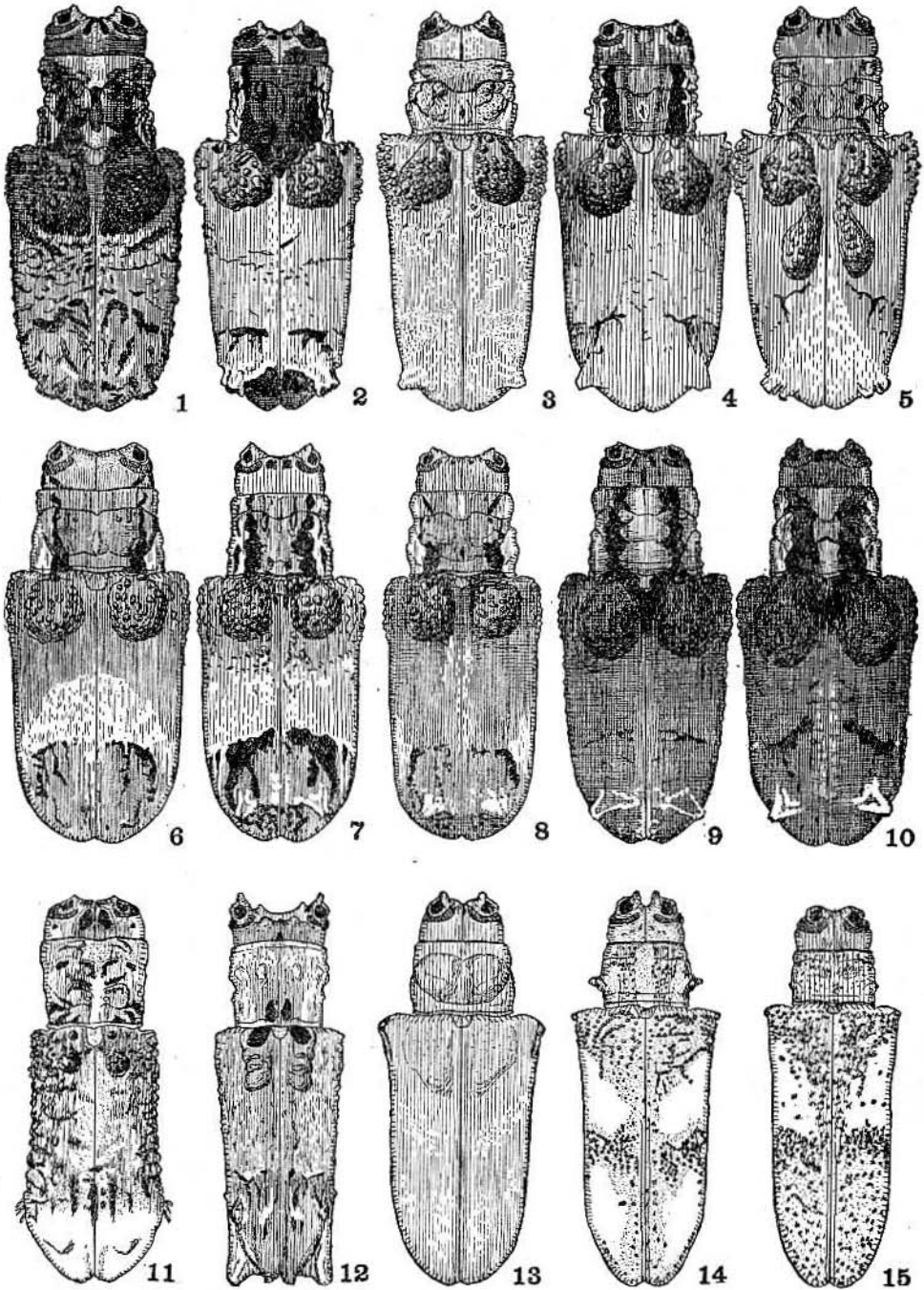


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| <p>1. <i>Lochmaeocles batesi</i>, ♂, x 2.2, (the elytra illustrate two common variants) p. 192.</p> <p>2. <i>L. alboplagiatus</i>, ♀, x 2.2, p. 193.</p> <p>3. <i>L. cornuticeps cornuticeps</i>, ♂, x 2.8, p. 196.</p> <p>4. <i>L. cornuticeps federalis</i>, ♂, x 2.8, p. 197.</p> <p>5. <i>L. cornuticeps pacificus</i>, ♂, x 2.8, p. 198.</p> <p>6. <i>L. sparsus</i>, ♀, x 3, p. 195.</p> <p>7. <i>L. fuscatus</i>, ♂, x 2.2, p. 199.</p> | <p>8. <i>L. laticinctus</i>, ♂, x 2.5, p. 200.</p> <p>9. <i>L. callidryas</i>, ♂, x 2.5, p. 201.</p> <p>10. <i>L. tessellatus</i>, ♂, x 2.4, p. 202.</p> <p>11. <i>L. boudurensis</i>, ♂, x 2.4, p. 204.</p> <p>12. <i>L. consobrinus consobrinus</i>, ♂, x 2.5, p. 205.</p> <p>13. <i>L. consobrinus boliviensis</i>, ♂, x 2.3, p. 207.</p> <p>14. <i>L. vestitus</i>, ♂, x 2.3, p. 207.</p> <p>15. <i>L. marmoratus</i>, ♂, x 2, p. 208.</p> |
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1. *Lochmaeocles sladeni*, ♀, x 2, p. 210.
2. *L. pulcher*, ♂, x 2.7, p. 211.
3. *L. basalis*, ♂, x 2.7, p. 212.
4. *L. zonatus*, ♂, x 2.7, p. 214.
5. *L. obliquatus*, ♂, x 2, p. 215.
6. *L. vermiculatus*, ♂, x 2, p. 216.
7. *Ephialtes cretacea*, ♂, x 3.2, p. 219.
8. *Sternycha approximata*, ♀, x 4, p. 123.

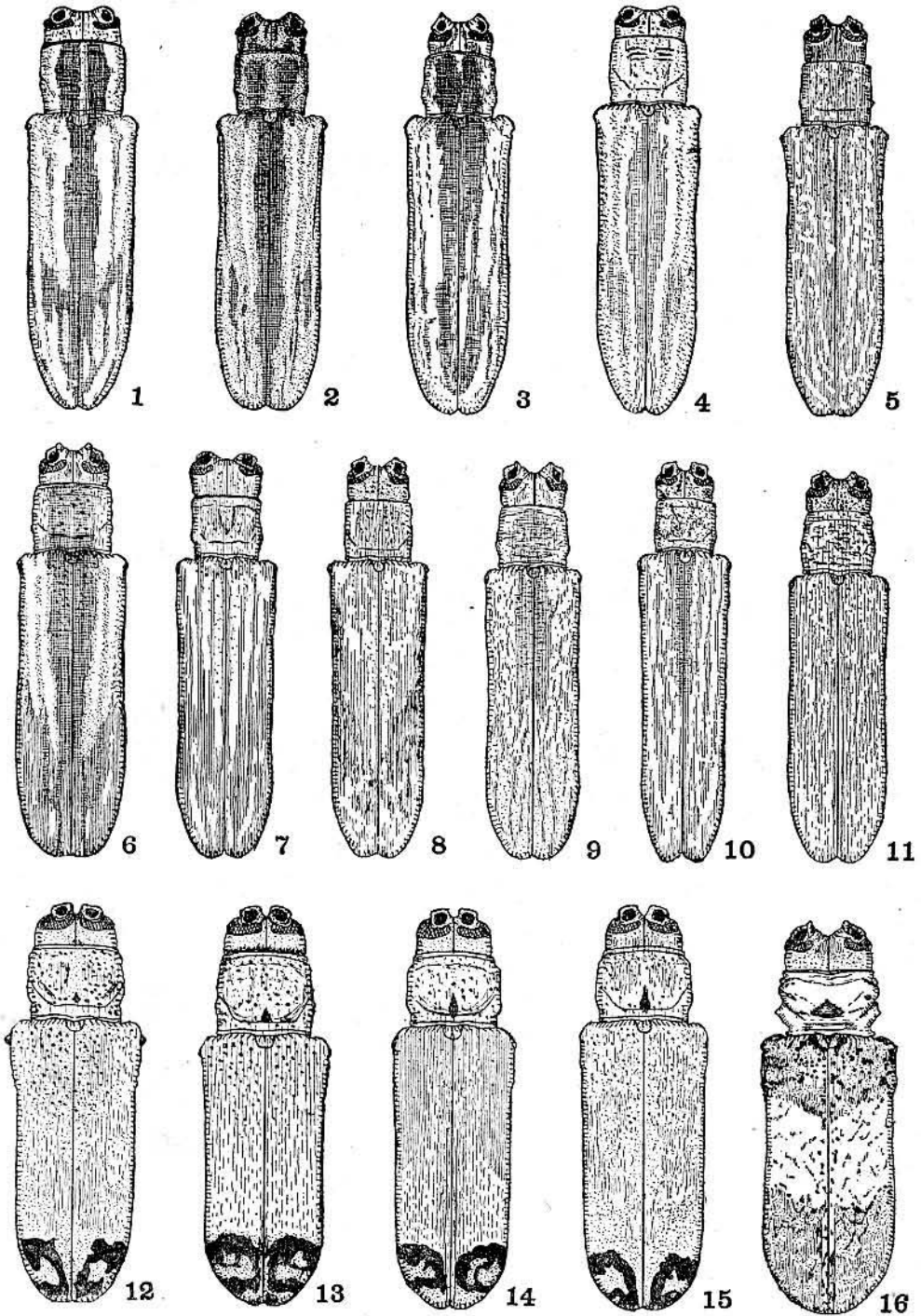
9. *S. sternalis*, ♀, x 4, p. 122.
10. *S. pauper*, ♀, x 6, p. 124.
11. *Midamus santaremensis*, ♀, x 3.8, p. 143.
12. *M. hecabe*, ♂, x 3, p. 141.
13. *Esonius panopus*, ♂, x 3.5, p. 145.
14. *Beta doris*, ♀, x 3.5, p. 138.
15. *Apamauta lineolata*, ♂, x 5, p. 135.



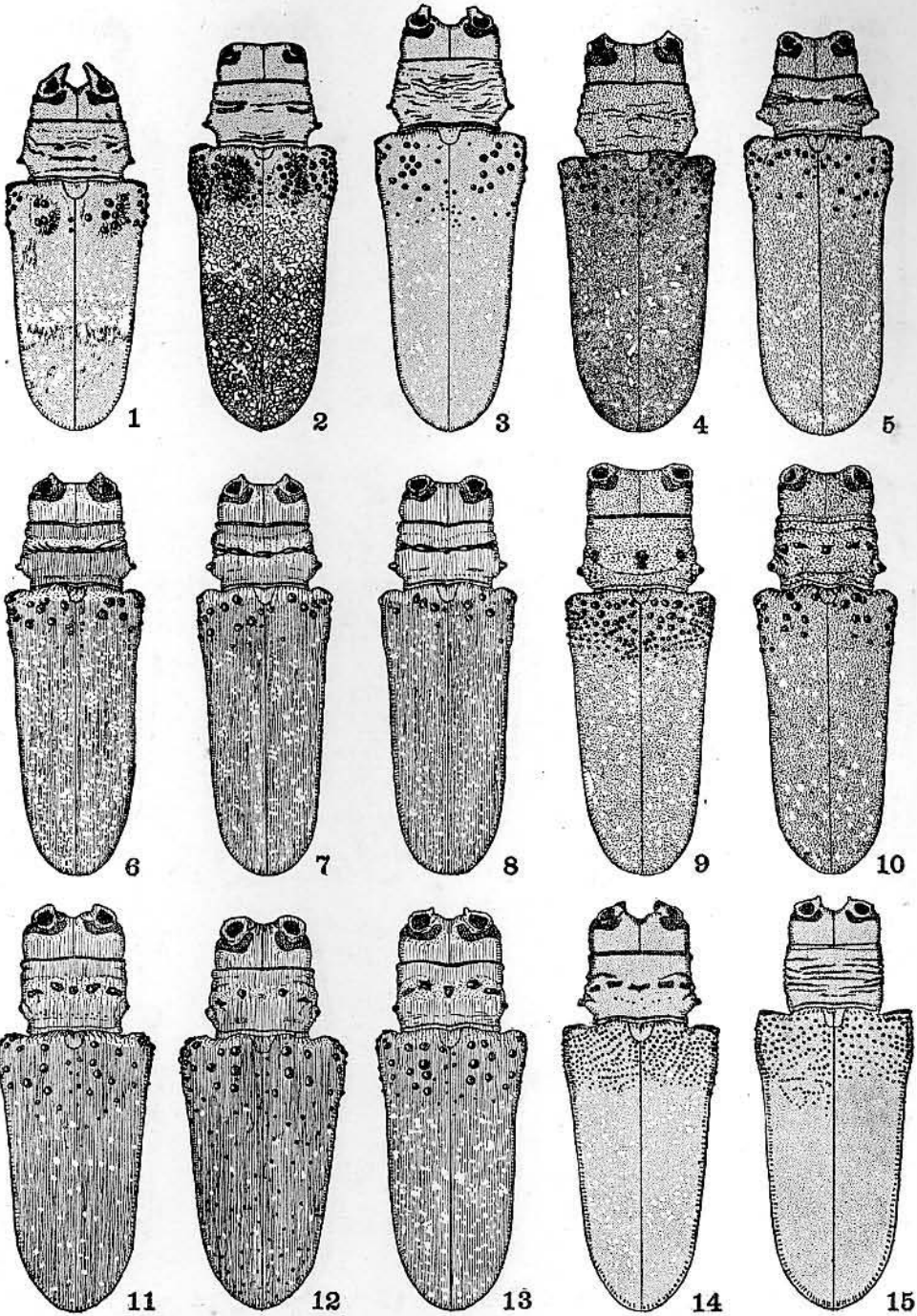
1. *Trachysomus fragifer*, ♂, x 3.3, p. 243.
2. *T. gibbosus*, ♂, x 2.8, p. 245.
3. *T. camelus*, ♂, x 2.2, p. 247.
4. *T. thomsoni*, ♂, x 2, p. 248.
5. *T. dromedarius*, ♀, x 2.7, p. 250.
6. *T. bydaspes*, ♀, x 2.9, p. 236.
7. *T. peregrinus*, ♂, x 2.7, p. 237.
8. *T. buquetii*, ♂, x 3.5, p. 239.

9. *T. mexicanus*, ♀, x 3.9, p. 240.
10. *T. vurdus*, ♂, x 3.6, p. 242.
11. *Cydros leucurus*, ♀, x 4.3, p. 252.
12. *Eclhoca quadricornis*, ♂, x 3, p. 290.
13. *Talpus amazonica*, ♂, x 3.3, p. 50.
14. *Ischiocentra quadrisignata*, ♂, x 3, p. 230.
15. *Ischiocentra albilatera*, ♀, x 3, p. 227.



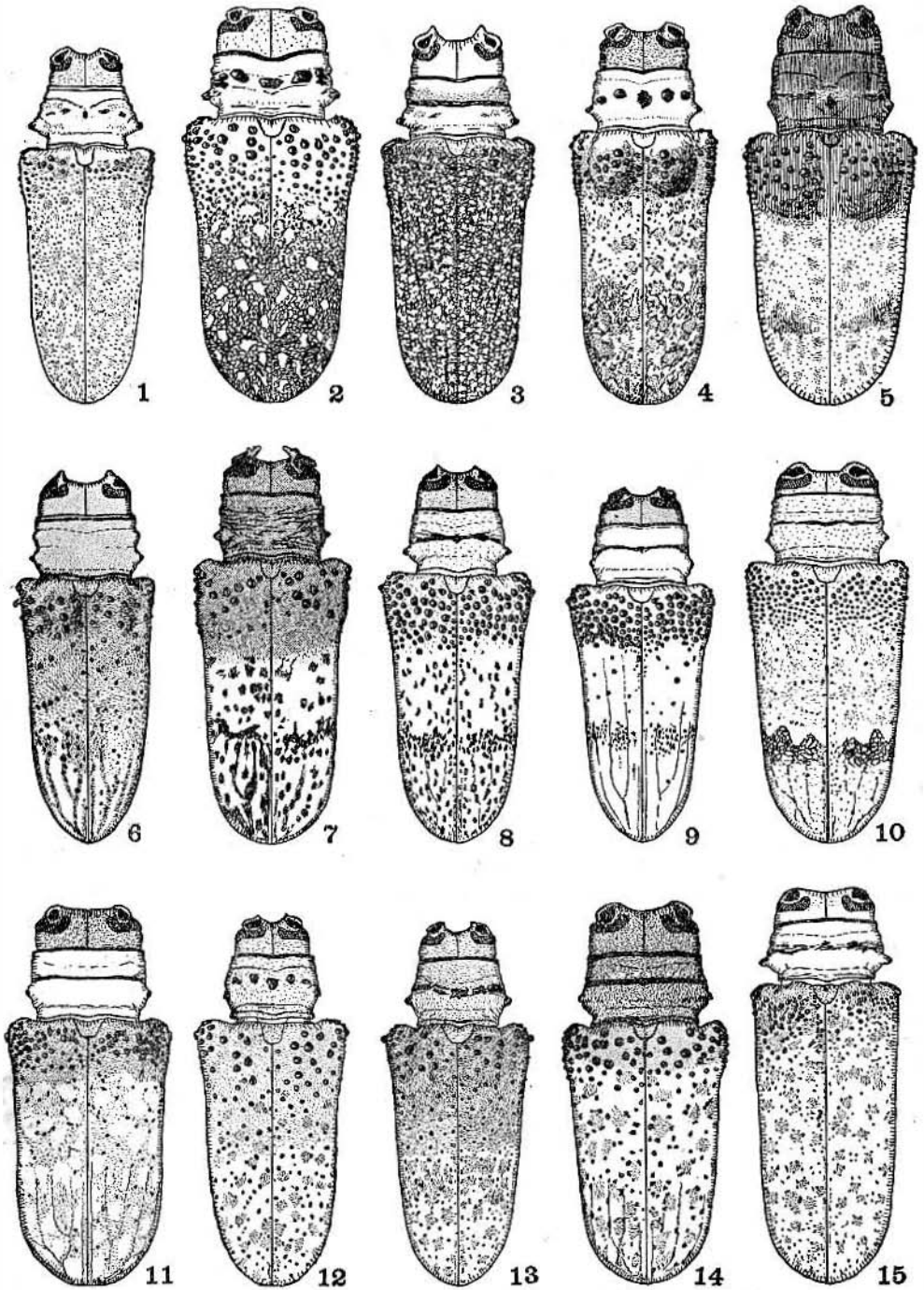


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| 1. <i>Cacostola ornata</i> , ♂, x 7, p. 255. | 9. <i>C. clorinda</i> , ♂, x 7, p. 266.                   |
| 2. <i>C. zanaa</i> , ♀, x 4.7, p. 256.       | 10. <i>C. sirena</i> , ♀, x 6, p. 267.                    |
| 3. <i>C. nitida</i> , ♀, x 6, p. 258.        | 11. <i>C. grisea</i> , ♂, x 5.7, p. 268.                  |
| 4. <i>C. leonensis</i> , ♀, x 6.5, p. 259.   | 12. <i>Cylicasta liturata</i> , ♀, x 4, p. 270.           |
| 5. <i>C. variegata</i> , ♂, x 5.2, p. 260.   | 13. <i>C. coarctata</i> , ♂, x 6, p. 272.                 |
| 6. <i>C. simplex</i> , ♀, x 4.5, p. 262.     | 14. <i>C. terminata</i> , ♂, x 6, p. 273.                 |
| 7. <i>C. fusca</i> , ♂, x 5.7, p. 263.       | 15. <i>C. нина</i> , ♂, x 6.8, p. 274.                    |
| 8. <i>C. braziliensis</i> , ♀, x 6, p. 265.  | 16. <i>Psylloxoxus griseocinctus</i> , ♂, x 4.25, p. 305. |



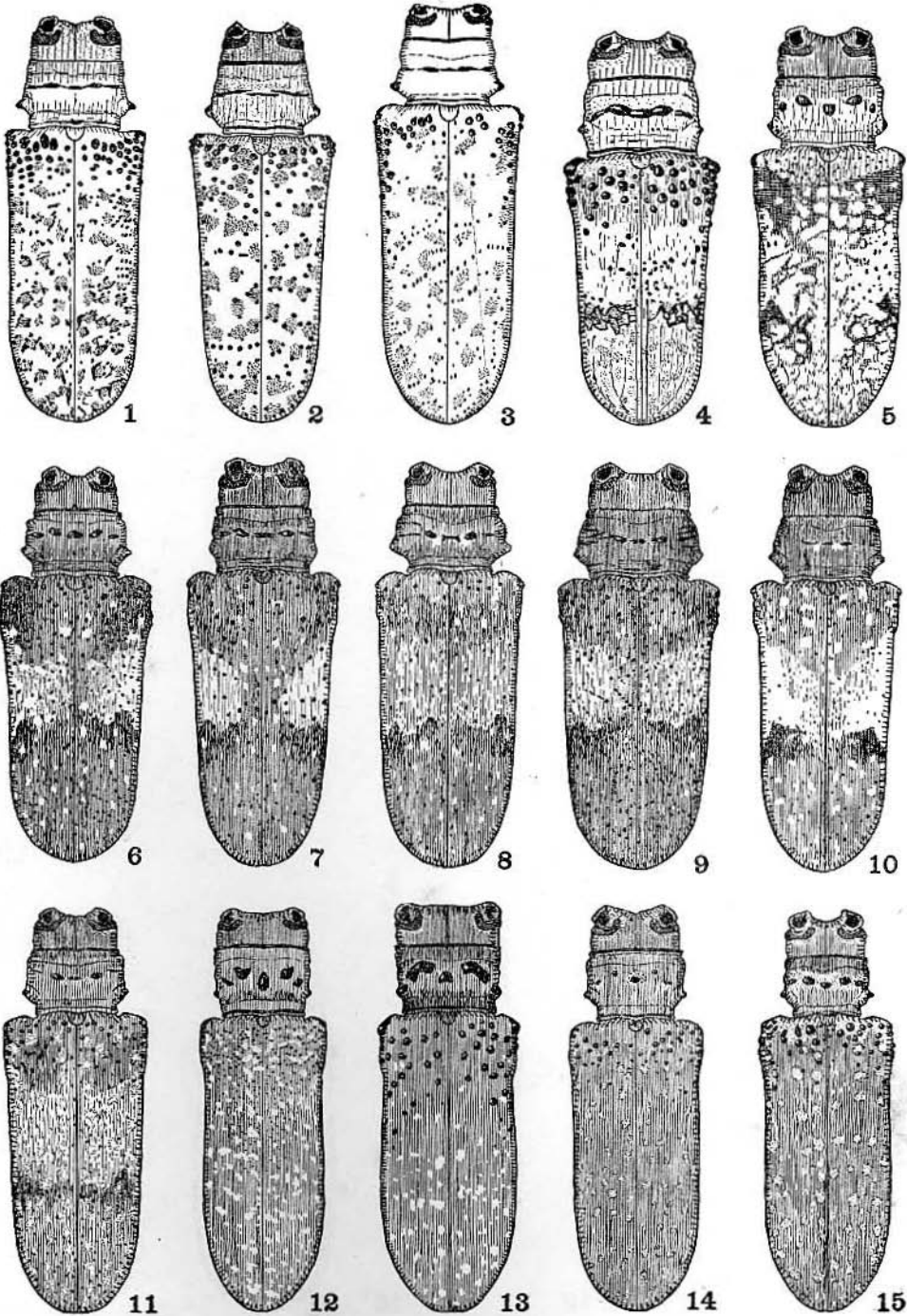
1. *Oncideres ulcerosa*, ♂, x 2¼, p. 315.
2. *O. crocatala*, ♀, x 2.8, p. 317.
3. *O. etiolata*, ♂, x 2.5, p. 318.
4. *O. ilaire*, ♀, x 3, p. 319.
5. *O. germarii*, ♂, x 2¼, p. 320.
6. *O. saga saga*, ♂, x 2¼, p. 321.
7. *O. saga amazona*, ♂, x 2¼, p. 323.
8. *O. saga colombiana*, ♂, x 2¼, p. 324.

9. *O. nivea*, ♀, x 2.5, p. 324.
10. *O. satyra*, ♂, x 2½, p. 326.
11. *O. digna*, ♂, x 2.8, p. 327.
12. *O. philosipes*, ♂, x 2, p. 328.
13. *O. aegrola*, ♂, x 2¼, p. 330.
14. *O. humeralis*, ♂, x 2.8, p. 331.
15. *O. cervina*, ♂, x 2.8, p. 332.

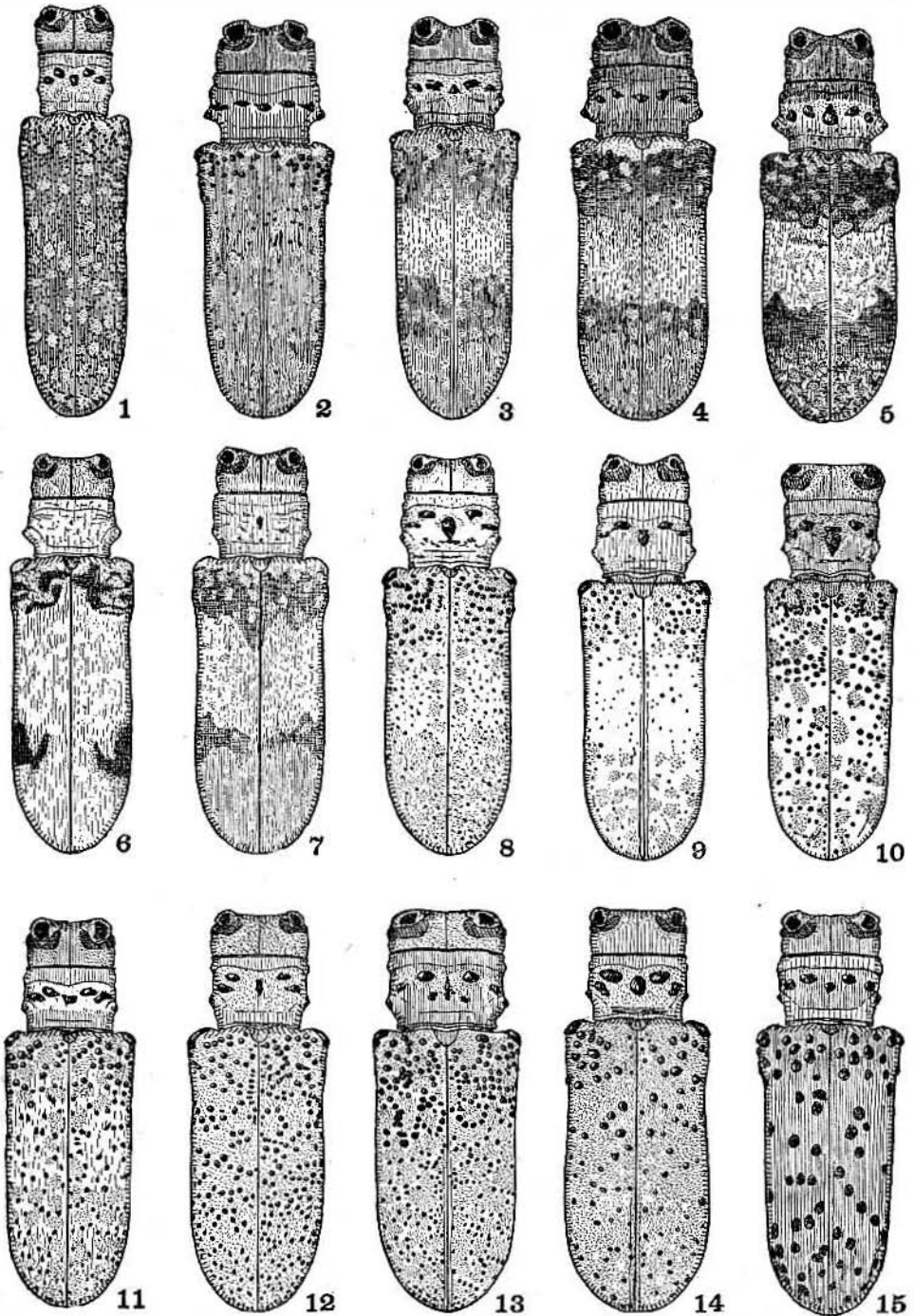


1. *Oncideres albomarginata*, ♂, x 2, p. 334.
2. *O. maxima*, ♀, x 1.9, p. 335.
3. *O. irrorata*, ♂, x 2, p. 336.
4. *O. gibbosa*, ♂, x 3, p. 339.
5. *O. phaeinusa*, ♂, x 3.8, p. 338.
6. *O. crassicornis*, ♂, x 3, p. 340.
7. *O. repandator*, ♂, x 2 1/4, p. 341.
8. *O. clypeolotes*, ♂, x 2, p. 343.

9. *O. chevrolatii*, ♂, x 2.5, p. 344.
10. *O. multicolorata*, ♂, x 3, p. 346.
11. *O. albomaculata*, ♀, x 2.8, p. 347.
12. *O. fulvostillata*, ♂, x 2, p. 348.
13. *O. apicalis*, ♂, x 2 1/4, p. 349.
14. *O. geminata*, ♂, x 3, p. 350.
15. *O. amputator*, ♀, x 3, p. 351.



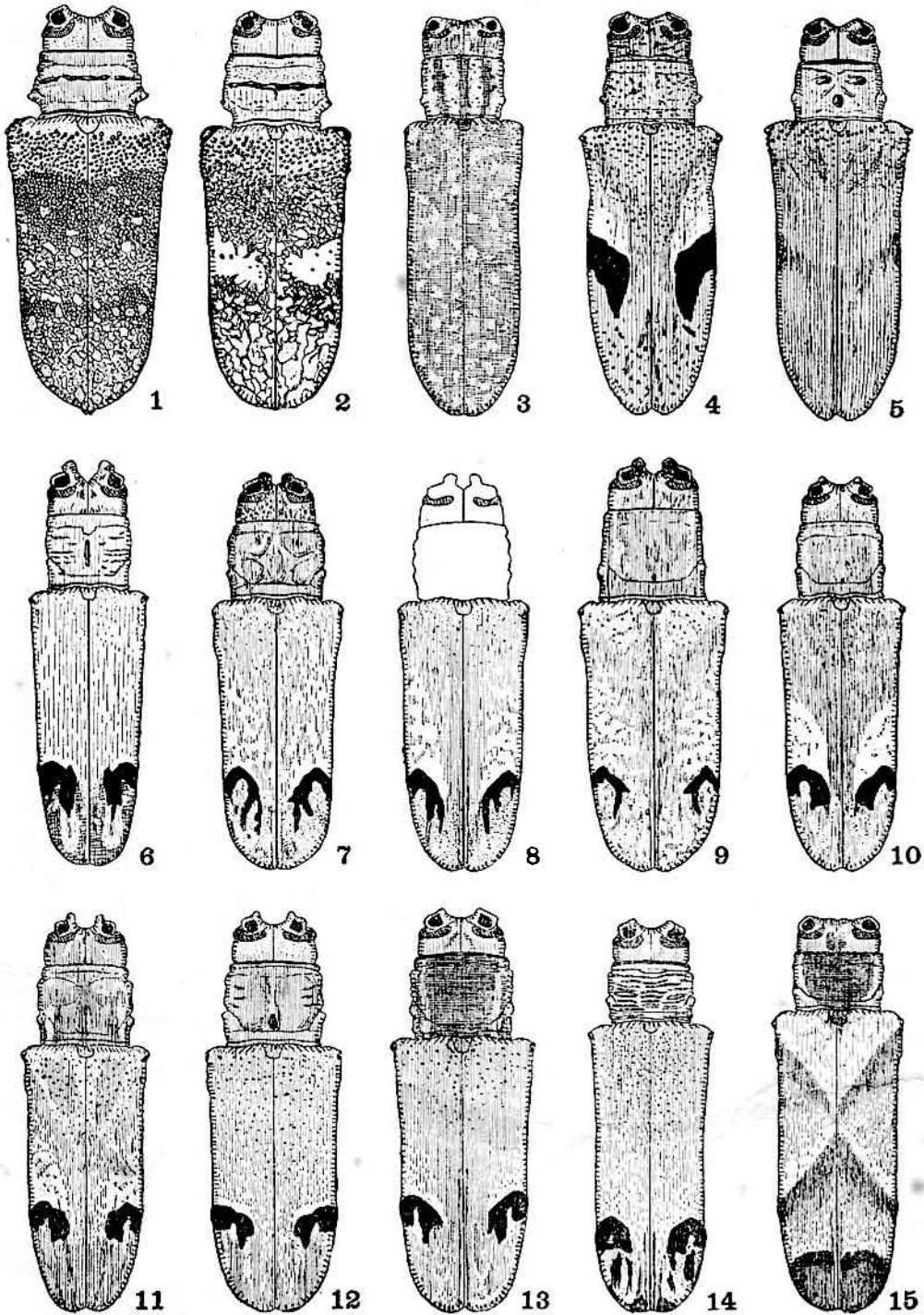
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| 1. <i>Oncideres argentata</i> , ♀, x 3, p. 353.        | 9. <i>O. frustulata</i> , ♂, x 2.5, p. 364. |
| 2. <i>O. sobrina</i> , ♂, x 3, p. 354.                 | 10. <i>O. canidia</i> , ♂, x 2.7, p. 365.   |
| 3. <i>O. bouchardi</i> , ♂, x 3, p. 355.               | 11. <i>O. ocellaris</i> , ♂, x 2.2, p. 361. |
| 4. <i>O. fulvoguttata</i> , ♂, x 3¼, p. 356.           | 12. <i>O. castanea</i> , ♀, x 3.8, p. 370.  |
| 5. <i>O. bucki</i> , x 5.5, (after Melzer), p. 358.    | 13. <i>O. minuta</i> , ♀, x 5, p. 372.      |
| 6. <i>O. putator putator</i> , ♂, x 2.5, p. 359.       | 14. <i>O. impleviata</i> , ♂, x 4, p. 373.  |
| 7. <i>O. putator brevifasciata</i> , ♂, x 2.5, p. 360. | 15. <i>O. ocellaris</i> , ♂, x 3.2, p. 374. |
| 8. <i>O. semilis</i> , ♂, x 2.5, p. 362.               |   |



1. *Oncideres pectoralis*, ♂, x 4, p. 376.
2. *O. polychroma*, ♂, x 3.6, p. 377.
3. *O. modesta*, ♂, x 3.8, p. 379.
4. *O. guttulata*, ♂, x 4, p. 380.
5. *O. rhodosticta*, ♂, x 3.8, p. 382.
6. *O. quercus*, ♂, x 4.5, p. 383.
7. *O. cingulata*, ♂, x 4.1, p. 385.
8. *O. hœcila*, ♀, x 4.2, p. 389.

9. *O. punctata*, ♂, x 4.5, p. 390.
10. *O. schreiteri*, ♀, x 6, p. 391.
11. *O. ophthalmulii*, ♂, x 5, p. 392.
12. *O. bondari*, ♀, x 5.5, p. 393.
13. *O. fusberi*, ♀, x 5, p. 395.
14. *O. tuberculata*, ♀, x 4.5, p. 396.
15. *O. intermedia*, ♀, x 4.7, p. 398.





1. *Oncileres dejeani*, ♂, x 2.2, p. 367.

2. *O. miniata*, ♂, x 3.3, p. 369.

3. *O. scitula*, ♂, x 3.3, p. 399.

4. *Cordites armillata*, ♂, x 4.3, p. 232.

5. *C. modesta*, ♂, x 2.7, p. 234.

6. *Trestonia chevrolatii*, ♂, x 2.7, p. 277.

7. *T. caprea*, ♂, x 3.6, p. 278.

8. *T. assulina*, ♀, x 3.6, p. 279.

9. *T. ceata*, ♂, x 5.5, p. 280.

10. *T. ramuli*, ♂, x 4.5, p. 281.

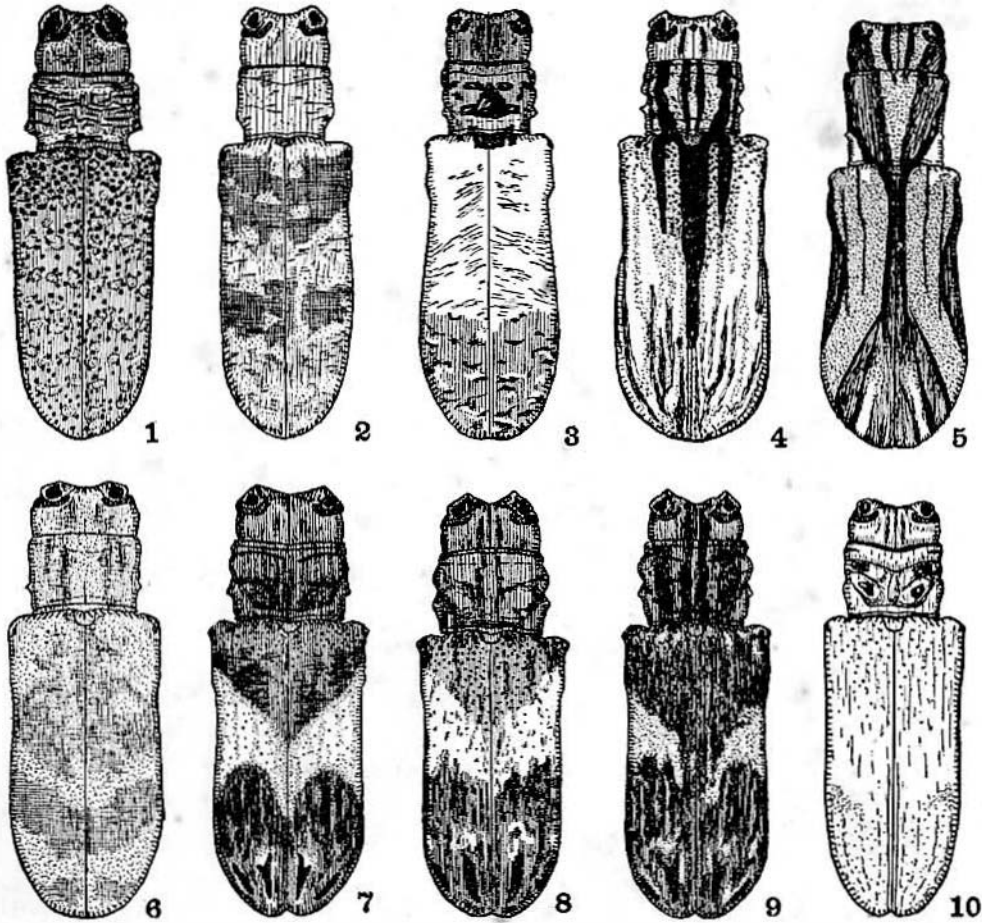
11. *T. confusa*, ♂, x 4.1, p. 282.

12. *T. pyralis*, ♂, x 4.8, p. 283.

13. *T. pulcherrima*, ♂, x 4.6, p. 285.

14. *Apocoptoma cabrillacii*, ♀, x 2.7, p. 287.

15. *Cbitron miszczkii*, ♀, x 3.3, p. 404.



1. *Taricanus truquii*, ♂, x 2.75, p. 403.
2. *Microcanus minor*, ♂, x 8.5, p. 401.
3. *Lachacrus semihirsutis*, ♂, x 4.25, p. 296.
4. *Bacnis sexuttata*, ♀, x 3, p. 288.
5. *Cberentes nivalateris*, ♂, x 7, p. 292.

6. *Claudesmus heterocera*, ♀ ?, x 2.25, p. 294.
7. *Eudesmus grisescens*, ♂, x 3.75, p. 301.
8. *E. rubefactus*, ♂, x 4, p. 300.
9. *E. ferrugineus*, ♂, x 3.75, p. 298.
10. *E. diopites*, ♀, x 3.25, p. 303.