

My description of the genus in the reference cited above needs slight correction as follows: The humeral margins of the pronotum, though usually tumid, are not always strongly swollen nor are the epomiae always evident; in many species, especially those of the subgenus *Cryptanuridimorpha*, the depression of the notauli extends somewhat beyond the margin of the pronotum; in a few species, in which the propodeal apophyses are in the form of high carinae, the apical carina is complete.

Because of the small numbers of specimens of nearly all of the species and the consequent lack of knowledge of the extent of variation, I have thought it best to give rather full and detailed descriptions. Undoubtedly many of the characters described will be found to vary considerably. I have little confidence, for example, in the constancy of such characters as the position of the second recurrent vein in relation to the second intercubitus or of the nervulus with respect to the basal vein, the position of the fracture of postnervulus and nervellus, the details of the structure of the frons immediately above the horn, the sculpture of the metapleurum and to some extent of the propodeum, and the relative length and breadth of the tergites, as well as in certain details of color, though certain other details and color pattern in general are surely of specific significance.

Apparently nothing is known of the host relations of the species.

The following key includes only those species that I have examined. At the end of the paper, however, I give a key which includes all the described species that appear to be referable to the genus.

Genus POLYCYRTUS Spinola

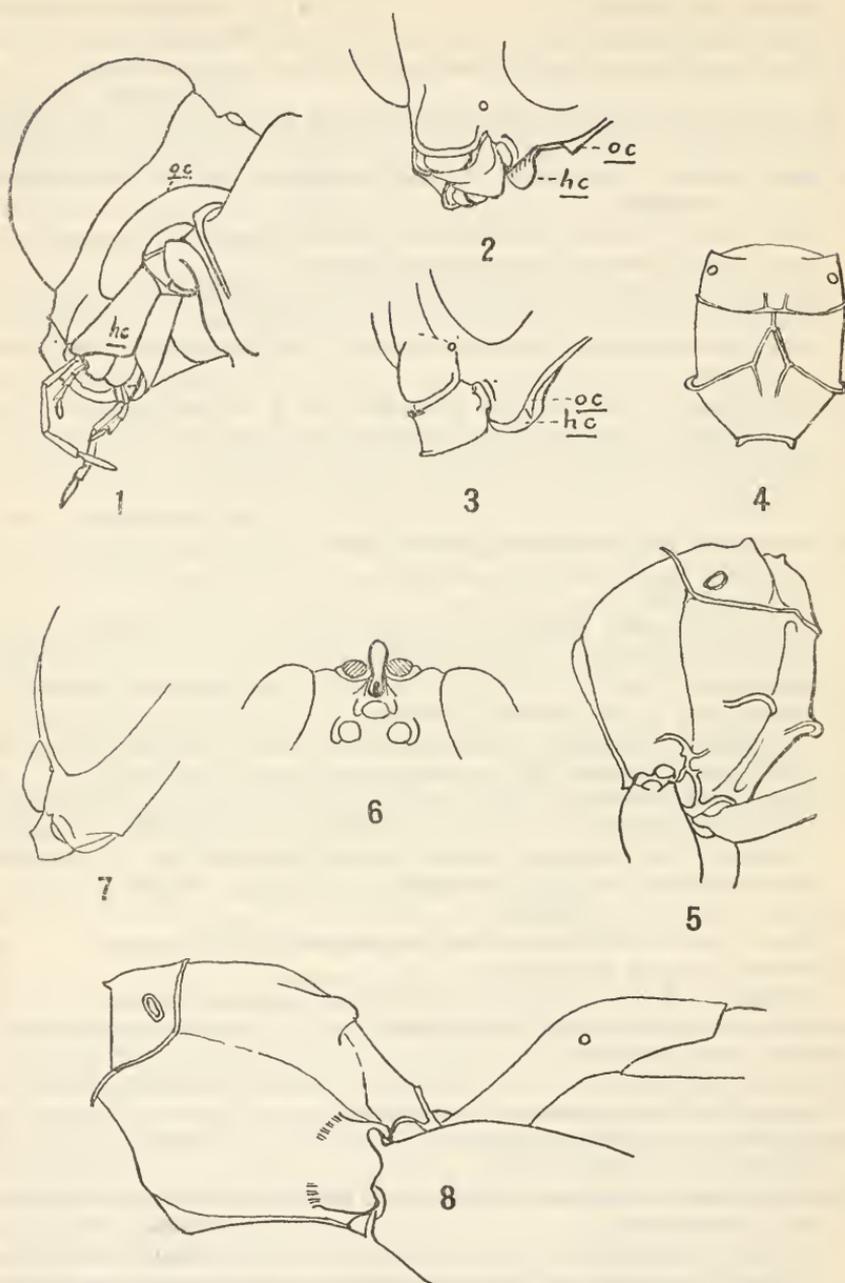
(For references see under subgeneric heading)

KEY TO SPECIES EXAMINED

1. Hypostomal carinae very high, arching over the bases of the maxillae and labrum and meeting or nearly meeting on the median line (subgenus *Cryptanuridimorpha* Viereck) (fig. 1)-----2.
- Hypostomal carinae frequently very high, but never arching over and covering the bases of the maxillae and labium (subgenus *Polycirtus* Spinola) (figs. 2, 3)-----7.
2. Abdomen beyond first tergite black, lateral margins of tergites usually white-----3.
- Abdomen red-----6.
3. Hind legs with femur, tibia, and basitarsus black; tergites not white laterally-----1. *elegans* (Viereck).
- Hind legs with femur at most piceous, tibia yellowish and tarsus whitish; tergites laterally white-----4.
4. Space between hypostomal carina and cheek not so deep, the margin hardly carinate; hind femur ferruginous-----5.
- Space between hypostomal carina and cheek very deep and separated from cheek by a sharp carinate margin; hind femur piceous.

4. *inca*, new species.

5. Frontal horn black.....2. *capitator* (Fabricius).
 Frontal horn white.....3. *albiniclavus*, new species.
6. Head, pronotum, and mesoscutum black, without white markings.
 5. *tubulifera* (Viereck).
 Head with face, clypeus, frontal orbits, and apex of horn white; entire thorax red.....6. *buscki*, new species.
7. Apical carina of propodeum wanting, apophyses long or tuberculiform, rarely carinate.....8.
 Apical carina complete, angled sharply forward in middle, apophyses in the form of high carinate elevations (fig. 4).....48.
8. Apophyses of normal form; mesoscutum without tubercles above tegulae...9.
 Apophyses in the form of high transverse carinae (fig. 5), the propodeum longitudinally sulcate from basal carina to apex; mesoscutum with a white tubercle above each tegula.....48. *carinispinis*, new species.
9. Propodeum and metapleurum not rugose, or if so apophyses are long; frontal horn usually spiniform or conical, rarely constricted near base...10.
 Propodeum and metapleurum coarsely rugose, apophyses low rounded tubercles; frontal horn bulbous (fig. 6); areolet very small.
 47. *bulbosus*, new species.
10. Nervellus broken, discoidella distinct; areolet much longer than broad with recurrent at or near apex; mesoscutum immaculate or with two white lines on disk.....11.
 Nervellus unbroken, discoidella entirely wanting; areolet nearly as broad as long, with recurrent not far beyond middle; mesoscutum with a median white spot.....46. *infractus*, new species.
11. Clypeus more or less distinctly inflexed; scutellum high and more or less compressed; apophyses usually elongate, in male sometimes low but not so smoothly rounded; first segment at most weakly decurved.....12.
 Clypeus and scutellum strongly convex but clypeus (fig. 7) not inflexed at apex and scutellum not compressed from sides; apophyses low rounded tubercles; first abdominal segment strongly decurved (fig. 8); ovipositor more than half as long as abdomen.....45. *rufipleuris* Szepilgeti.
12. Thorax entirely ferruginous.....13.
 Thorax more or less black, at least mesoscutum black or piceous.....25.
13. Abdomen entirely ferruginous.....14.
 Abdomen black and white, at most with first tergite largely red.....18.
14. Inner and superior orbits broadly white.....7. *ornatifrons*, new species.
 Orbits not at all white.....15.
15. Head entirely black.....8. *inornatus*, new species.
 Head with a least clypeus pale or reddish.....16.
16. Clypeus and mandibles reddish.....9. *minutus*, new species.
 Clypeus and mandibles white.....17.
17. Occipital carina very prominent below and separated from hypostomal carina by a deep groove.....10. *boliviensis*, new species.
 Occipital carina fading out some distance from hypostomal carina but not prominent at lower end, the space between it and hypostomal carina shallow.....11. *areolatus*, new species.
18. Occipital carina abruptly interrupted below, its lower end very prominent and separated from hypostomal carina by a deep, broad furrow.....19.
 Occipital carina reaching hypostomal carina or if not its lower end is not prominent or there is only a small notch next to the hypostomal carina.....22.
19. Face black.....20.
 Face white.....21.



1, *POLYCYRTUS* (*CRYPTANURIDIMORPHA*) *ALBINICLAVUS* CUSHMAN. OBLIQUE VIEW OF BACK OF HEAD TO SHOW HYPOSTOMAL CARINAE (HC); OC=OCCIPITAL CARINA. DRAWN FROM TYPE; 2, *POLYCYRTUS* (*POLYCYRTUS*) *PRONIMANNULATUS* CUSHMAN. LOWER PART OF HEAD TO SHOW HYPOSTOMAL CARINA (HC) AND OCCIPITAL CARINA (OC). DRAWN FROM TYPE; 3, *POLYCYRTUS* (*POLYCYRTUS*) *LITURATUS* BRULLÉ. LOWER PART OF HEAD TO SHOW HYPOSTOMAL CARINA (HC) AND OCCIPITAL CARINA (OC); 4, *POLYCYRTUS* (*POLYCYRTUS*) *HUMEROSUS* CUSHMAN. PROPODEUM. DRAWN FROM PARATYPE; 5, *POLYCYRTUS* (*POLYCYRTUS*) *CARINISPINIS* CUSHMAN. PROPODEUM. DRAWN FROM TYPE; 6, *POLYCYRTUS* (*POLYCYRTUS*) *BULBOSUS* CUSHMAN. TOP OF HEAD TO SHOW FRONTAL HORN. DRAWN FROM TYPE; 7, *POLYCYRTUS* (*POLYCYRTUS*) *RUFIPLEURIS* SZEPLIGETI. SIDE VIEW OF CLYPEUS; 8, SAME. PROPODEUM AND FIRST SEGMENT OF ABDOMEN

20. Clypeus black.....12. *nigriclypeatus*, new species.
 Clypeus white.....13. *impressus*, new species.
21. Head in profile with occipital carina nearly parallel with posterior margin
 of eye; metapleurum rugose.....14. *prominens*, new species.
 Head in profile with occipital carina distinctly convergent above with eye
 margin; metapleurum sparsely punctate.....15. *convergens*, new species.
22. Face laterally and frontal orbits white.....16. *isthmus*, new species.
 Face and orbits black.....23.
23. Occipital carina prominent below, reaching hypostomal carina but with a
 small notch next to hypostomal carina.....24.
 Occipital carina not at all prominent below but fading out a short distance
 from hypostomal carina.....19. *brevigenalis*, new species.
24. Clypeus black, piceous in middle; frontal horn and apophyses very small.
 17. *parviclavus*, new species.
 Clypeus white; frontal horn and apophyses not reduced.
 18. *paranensis*, new species.
25. Abdomen entirely ferruginous.....26.
 Abdomen black and white, sometimes with petiole ferruginous and rarely
 with margins of tergites reddish.....27.
26. Mandibles black; frontal horn white at apex; parapsidal lobes distinctly
 longitudinally sulcate.....20. *sulcatilobus*, new species.
 Mandibles white; frontal horn entirely black; parapsidal lobes at most
 weakly sulcate.....21. *saladonis*, new species.
27. Face and orbits black.....28.
 Face and at least frontal orbits white.....32.
28. Propodeum partly black; large species.....29.
 Propodeum entirely red or with apophyses whitish; small species.....30.
29. Clypeus black; annulus beginning on third flagellar joint; frontal horn conical;
 thorax laterally pale stramineous; apophyses very long and slender.
 22. *proximannulatus*, new species.
 Clypeus white; annulus beginning on fifth flagellar joint; frontal horn constricted
 near base; thorax laterally ferruginous; apophyses rather short
 and straight.....23. *constricticlavus*, new species.
30. Tergites 2-6 apically white margined, broadly so medially; lower end of
 occipital carina separated from hypostomal carina by a small notch;
 apophyses rather short, compressed.....24. *medialbus*, new species.
 Tergites 2-6 at most narrowly ferruginous at apex; lower end of occipital
 carina separated from hypostomal carina by a broad deep furrow; apophyses
 long, slender, curved.....31.
31. Clypeus white; frontal horn with two deep pits above at base.
 25. *xanthothorax* Brullé.
 Clypeus black; frontal horn without such pits.....26. *atrinasutus*, new species.
32. Pleura and usually propodeum ferruginous.....33.
 Pleura and propodeum yellow or whitish, more or less marked with
 black.....40.
33. Propodeum black or piceous basad of carina and usually beyond; hind
 femur black or piceous at least above.....34.
 Propodeum ferruginous, sometimes with a more or less distinct median black
 line; hind femur ferruginous.....36.
34. Propodeum black only basad of carina; lateral areas of scutellum partly
 white.....27. *cockerellae* Viereck.
 Propodeum with black or piceous color extending beyond carina; lateral
 areas of scutellum entirely black.....35.

35. Mandibles white; scutellum black medially.....28. *inquinatus*, new species.
Mandibles black; scutellum white medially.....29. *medictinctus*, new species.
36. Second tergite with a median white spot near base.....37.
Second tergite without a median white spot.....38.
37. Propodeum with a narrow median basal area defined by carinae and with
a median black stripe.....30. *areolaris*, new species.
Propodeum impressed in basal middle but without a defined area; immaculate.....31. *circumfluens*, new species.
38. Head not constricted below eyes, mouth broader than narrowest width of
face; mandibles black.....32. *manni*, new species.
Head constricted below eyes, mouth hardly as broad as narrowest width of
face; mandibles white.....39.
39. Malar space hardly as long as basal width of mandible; posterior orbits with
a narrow white line continuous over top of eye; apophyses of normal
length, straight.....33. *confusus*, new species.
Malar space longer than basal width of mandible; posterior orbits black
with a white spot; apophyses very long, curved.....34. *copiosus* Cresson.
40. Mesosternum and middle and hind coxae dark ferruginous; propodeum
deeply impressed in basal middle with a prominent rounded yellow ele-
vation on each side of impression.....35. *colliculatus*, new species.
Mesosternum and coxae white or stramineous, the hind coxae frequently
with a black stripe above; propodeum of other form.....41.
41. Second tergite white medially near base.....42.
Second tergite not white medially toward base.....46.
42. Mesoscutum immaculate black; occipital carina curving sharply mesad and
meeting the hypostomal carina farther from base of mandible than the
latter is broad at base.....36. *macer* Cresson.
Mesoscutum with two white lines in middle; occipital carina either inter-
rupted below or meeting hypostomal carina not far from base of man-
dible.....43.
43. Scutellum white; occipital carina rather prominent below and not reaching
hypostomal carina.....44.
Scutellum with only apex and carinae white; occipital carina complete or
obsolete below.....45.
44. Subbasal white spot of second tergite transversely quadrangular; basal
middle of propodeum narrowly impressed but without a basal area de-
fined by carinae; wings hyaline.....37. *duplicatus*, new species.
Subbasal white spot of second tergite triangular; basal middle of pro-
podeum with a narrow area defined laterally by carinae; wings slightly
infumate.....38. *triangularis*, new species.
45. Occipital carina fading out below and not reaching hypostomal carina;
apophyses long, slender, curved.....39. *major* Cresson.
Occipital carina complete to occipital carina; apophyses long, but stouter
and straight.....40. *semialbus* (Cresson).
41. *montezuma* Cameron
46. Dark color of head and thorax reddish piceous rather than black; frontal
horn white at apex; transverse dark band behind basal carina of pro-
podeum broadly confluent with lateral stripe.....42. *litturatus* Brullé.
Dark color of head and thorax black; frontal horn black; transverse dark
band at most narrowly confluent with lateral stripe; metapleurum more
or less coarsely punctate, especially in male.....47.
47. Hind femur black above, whitish below.....43. *collinus* Cameron.
Hind femur testaceous.....44. *neglectus* Cushman.

48. Space between hypostomal carina and lower end of occipital carina broad and very deep; dorsal margin of pronotum not prominent anteriorly; abdomen entirely red.....49.
 This space not very broad and deep, occipital carina nearly or quite reaching hypostomal carina; dorsal anterior angle of pronotum very prominent; abdomen black and white.....50.
49. Head entirely black; thorax entirely ferruginous.
 49. *bicarinatus*, new species.
 Head black and white; thorax stramineous, black and white.
 50. *univittatus* Cresson.
50. Thorax partly reddish.....51.
 Thorax black and white.....53. *tricolor* Brullé.
51. Second tergite black in basal middle and at extreme apex; apophyses in female longer than basal width.....51. *paululus* Cresson.
 Second tergite white at base and apex; apophyses low.
 52. *humerosus*, new species.

Subgenus CRYPTANURIDIMORPHA Viereck

Cryptanuridimorpha VIERECK, Proc. U. S. Nat. Mus., vol. 46, 1913, p. 369.

Genotype.—*Cryptanuridimorpha elegans* Viereck.

Cryptopterigimorpha VIERECK, Proc. U. S. Nat. Mus., vol. 46, 1913, p. 371.

Genotype.—*Cryptopterigimorpha tubulifer* Viereck. (New synonymy.)

As indicated above, these two supposed genera are said by the author to differ only in the position of the second recurrent vein with relation to the second intercubitus, a character which shows marked variation in the typical subgenus.

The character by which Viereck distinguished them from *Poly-crytus*, the high hypostomal carinae which meet along the median line, and which he professed to consider of tribal significance, shrinks to at most subgeneric value when the whole Mesostenine complex of genera is considered. In all other characters this group agrees with the typical subgenus.

1. POLYCYRTUS (CRYPTANURIDIMORPHA) ELEGANS (Viereck). (New combination)

Cryptanuridimorpha elegans VIERECK, Proc. U. S. Nat. Mus., vol. 46, 1913, p. 369, male.

Still known only from the unique type male.

Distinct from any other species known to me by its entirely black hind tibiae and basally black hind basitarsus, although in this respect it does not differ from *nigrotibialis* Szepligeti. Characteristic also are the large size, the conspicuous whitish hairs on the abdomen, and the position of the antennal annulus (joints 11–15 of the flagellum), this being usually several joints nearer the base. The hypostomal carinae are contiguous medially to a point nearly opposite the ventral articulation of the mandible.

2. POLYCYRTUS (CRYPTANURIDIMORPHA) CAPITATOR (Fabricius) Brullé. (New combination)

?*Cryptus capitator* FABRICIUS, Syst. Piez., 1804, p. 82, female.

Mesostenus (Polycyrtus) capitator BRULLÉ, His. Nat. Ins., Hym., vol. 4, 1846, p. 214, male.—SZEPLIGETI, Ann. Mus. Nat. Hung., vol. 14, 1916, pp. 269, 274, female, male.

?*Polycyrtus nigri-ventris* CAMERON, Timchri: Journ. Roy. Agr. and Comm. Soc. Brit. Guiana, vol. 1, 1911, p. 168, female.

Before me are three specimens (one female and two males) from French Guiana received from the Paris Museum, which appear to be the same as the species described under this name by Brullé. Spinola's identification of *capitator* is not the same species as the type nor is it the same as Brullé's, differing at least in having the face laterally white and the propodeum posteriorly punctate. Assuming, since Brullé makes no mention of the color, that the posterior femora in his specimen are red, it differs in this respect from the type of *capitator*, which has the femora black. This character is probably not always specific. In this respect the Fabrician type resembles more closely *inca*, new species, and that species may prove to be synonymous with *capitator*.

Ichneumon cephalotor Thunberg, synonymized by Dalla Torre with *capitator* is certainly not the same. It has the thorax black.

The same type of coloration occurs in the typical subgenus, and it may be that some or all of the forms referred to *capitator* really belong there.

Brullé's description of *capitator* and the description of *nigri-ventris* are so exactly similar that it seems probable that the two are the same.

As here identified *capitator* has the following characters:

Female.—Length 14 mm.

Head in front view with vertex strongly concave, eyes comprising nearly two-thirds total width of head at level of antennae, mouth barely as broad as shortest width of face, malar space slightly constricted just above base of mandible, hardly as long as basal width of mandible; diameter of ocellus three-fourths ocell-ocular line and twice postocellar line; frons deeply concave, horn long and rather slender, a small round tubercle above its base; temples from above concave, much less than half as long as short diameter of eye; occipital carina in side view convergent above with eye margin, not more prominent at lower extremity than elsewhere; hypostomal carinae contiguous to a point about opposite middle of malar space, the flanking grooves not especially deep and not separated from the cheeks by a carina, first joint of flagellum about eight times as long as its greatest thickness. Thorax polished, with a few weak punc-

tures in humeral angle of pronotum and on mesopleurum; pronotum with a high carina along its lower anterior margin but without epomia, its upper margin impressed opposite notauli, furrow along its posterior margin distinctly foveolate below, obsoletely above; mesoscutal lobes high, not at all flattened on top; scutellum very high; mesopleural and prepectal furrows foveolate; propodeum polished, without sculpture, basal carina very strong, straight in middle, basal area slightly concave medially, apophyses short, compressed, situated about midway between carina and apex; areolet of normal form with recurrent slightly antefurcal, nervulus interstitial or nearly, subdiscoideus slightly above middle of postnervulus, nervellus broken distinctly below middle. Abdomen slender, postpetiole less than twice as wide as petiole; second tergite fully three times as long as broad at base and very slightly shorter than first tergite; abdomen toward apex with sparse long whitish hairs; ovipositor sheath distinctly less than twice as long as first segment.

Thorax, legs, and first segment of abdomen except apex ferruginous to testaceous; head, antennae, and abdomen black; clypeus, mandibles, palpi, and antennal annulus beginning at apex of fourth flagellar joint white (the antennae are missing beyond this point); hypostomal carinae stramineous; legs beyond femora yellowish, the posterior tarsi whitish, apex dark; wings yellowish hyaline, venation dark, radices and tegulae stramineous; gastrocoeli pale reddish; tergites beyond first narrowly reddish at apex and more broadly whitish laterally, venter whitish.

Male.—Essentially like female. Antennal annulus beginning on apex of sixth flagellar joint; apophyses shorter and nearer to apex than to carina; propodeum obsoletely roughened behind and between the apophyses; abdomen narrower. One specimen has a trace of a median groove between apophyses and carina.

3. POLYCYRTUS (CRYPTANURIDIMORPHA) ALBINICLAVUS, new species

Figure 1

Female.—Length 12 mm.

Very closely related to *capitator* (Fabricius) Brullé and perhaps not specifically distinct. The following differences, however, are noted: the eyes appear somewhat smaller in front view; the small tubercle above the frontal horn is replaced by two transverse ridges traversing a shallow impression that is defined laterally by obsolete dorsally diverging ridges; frontal horn white. Antennae broken.

Type-locality.—Gourdonville, French Guiana.

Type.—Paris Museum.

One specimen taken by R. Benoist in 1914.

Would perhaps be better treated as a variety of *capitator* (Fabricius) Brullé, but limited material renders its treatment as a distinct species advisable for the present.

4. POLYCYRTUS (CRYPTANURIDIMORPHA) INCA, new species

?*Cryptus capitator* FABRICIUS, Syst. Piez., 1804, p. 82, female.

Female.—12 mm.

Like the last species above, perhaps no more than a variety of *capitator* (Fabricius) Brullé, but differs from that species as follows: furrow between hypostomal carina and cheek deep and carinately defined; lateral lobes of mesoscutum flattened; apophyses longer and distinctly nearer to apex of propodeum than to carina; antennal annulus beginning near base of fourth flagellar joint; frontal horn white; hind femur largely blackish.

Type-locality.—Caja, Peru.

Type.—Cat. No. 42174, U.S.N.M.

One specimen taken by Dr. P. Weiss.

As suggested above, this may be the true *capitator* (Fabricius).

5. POLYCYRTUS (CRYPTANURIDIMORPHA) TUBULIFERA (Viereck). (New combination)

Cryptopterigimorpha tubulifera VIERECK, Proc. U. S. Nat. Mus., vol. 46, 1913, p. 371, female.

Known only from the unique female type.

Very distinct in coloration from any other species of the subgenus, the head and anterior portion of the thorax being immaculate black and the rest of the body and the legs pale reddish testaceous.

Female.—Vertex and frons deeply concave, latter with rather distinct scrobes and a short thick horn without tubercle or ridges at base; eyes very nearly parallel within and comprising very nearly two-thirds of width of head at level of antennae; face with a rather deep longitudinal impression on each side of middle; clypeus in profile concavely inflexed at apex; malar space subequal to basal width of mandible; hypostomal carinae contiguous to nearly opposite ventral articulation of mandible; the flanking grooves separated from cheeks by carinate margins; temples concave and very narrow. Pronotum above, mesoscutum anteriorly, and mesopleurum and sternum sparsely and rather coarsely punctate; pronotum strongly carinate along its anterior lateral margin and deeply impressed on dorsal margin opposite notauli; lobes of mesoscutum not especially elevated, metapleurum irregularly rugose; propodeum with carina straight and very high, basal area punctate, not or barely impressed medially, apical slope medially more or less longitudinally roughened, apophyses very long; second recurrent and nervulus antefurcal; postnervulus broken at middle, nervellus broken at lower third; legs, especially

hind femur, rather unusually slender. Abdomen with rather dense long hair toward apex; postpetiole hardly twice as broad as petiole; second tergite distinctly shorter than first, more than three times as long as basal width; sheath a half longer than first tergite.

Head, pronotum, mesoscutum, basal portion of lateral area of scutellum, humeral angles of mesopleurum, and tegulae basally black; clypeus reddish at top of elevation; mandibles, palpi, and antennal annulus (flagellar joints 3–11) white; scutellar carinae white; thorax otherwise and abdomen pale reddish testaceous; legs to knees testaceous, beyond yellowish, hind tarsi whitish; wings yellowish hyaline, veins dark, stigma stramineous.

6. POLYCYRTUS (CRYPTANURIDIMORPHA) BUSCKI, new species

Very distinct in its entirely red thorax and abdomen from any other species of the subgenus and also in having the hypostomal carinae less highly developed though of the same form.

Female.—Length, 12 mm.

Head structurally about as in *capitator* (Fabricius) Brullé except that the hypostomal carinae are approximate (not quite meeting) for only a short distance basally. Thorax as in *capitator* except that the lateral lobes of the mesoscutum are slightly flattened, scutellum not quite so high, propodeal carina bent slightly forward medially, apophyses somewhat more prominent, postnervulus broken at middle. Abdomen slightly stouter than in *capitator*, postpetiole practically twice as broad as petiole, second tergite barely thrice as long as broad at base, much less conspicuously hairy at apex.

Head black with face, frontal and superior orbits, small spot in posterior orbits, malar space, clypeus, mandibles, palpi, frontal horn, and antennal annulus (middle of flagellar joints 4–11) white; thorax, abdomen, and legs ferruginous, tibiae yellowish, hind tarsi white; wings pale yellowish hyaline, veins dark, stigma largely stramineous.

Male.—Essentially like female; postorbital spot larger, scape partly white below, annulus on flagellar joints 7 (apical half) to 15; apophyses shorter and slightly nearer apex than to carina.

Type-locality.—Trinidad Rio, Panama.

Type.—Cat. No. 42175, U.S.N.M.

Two of each sex, all collected by August Busck, the type March 30, 1912, the allotype May 9, 1911, and the paratype male January 2, 1912, all at the type-locality, the paratype female at Porto Bello, Panama, March 13, 1911.

The paratype female is smaller than the type, has the face medially brownish, lacks the postorbital white spot, and has the annulus occupying the whole of joints 4–10 and base of 11; it lacks the front wings.

Subgenus POLYCYRTUS Spinola

- Polycyrtus* SPINOLA, Ann. Soc. Ent. France, vol. 9, 1840, p. 154. *Genotype*.—*Polycyrtus histrio* Spinola.
Polycyrtimorpha VIERECK, Proc. U. S. Nat. Mus., vol. 46, 1913, p. 383. *Genotype*.—*Polycyrtimorpha amoenus* Viereck.

As here treated this subgenus is a somewhat heterogeneous group that might, perhaps, be divided into two or more subgenera. The group comprising the last five species, characterized by the complete apical carina and apophyses reduced to higher portions in the carina, is apparently as distinct from the rest of the species as is the subgenus *Cryptanuridimorpha* although the character is not intrinsically so strong. Similarly *carinispinis*, *bulbosus*, *infractus*, and *rufipleuris* apparently are isolated examples of other minor groups that might, perhaps, be elevated to subgeneric rank.

The unavailability of the complete or incomplete occipital carina as a generic or even a subgeneric character, as used by Viereck to separate his *Polycyrtimorpha* from *Polycyrtus*, is demonstrated by the fact that it would divide the otherwise compact group of species with complete apical carina. In the foregoing key to species I have used this character in a modified form for the separation of species or small groups of species.

7. POLYCYRTUS (POLYCYRTUS) ORNATIFRONS, new species

Female.—Length 13 mm.

Vertex in front view deeply concave; frons with scrobes deep but not defined on inner side; horn slender with apex rounded and with two pits on frons above its base; face distinctly punctate, longitudinally impressed on each side of middle; eyes convergent below, comprising nearly two-thirds width of head at level of antennae; malar space distinctly shorter than basal width of mandible, constricted, mouth a little wider than narrowest width of face; temples in side view very narrow, occipital carina convergent above with posterior margin of eye, prominent below and separated from hypostomal carina by a deep groove; temples from above concave, weakly oblique, less than a third as long as short diameter of eye; diameter of an ocellus nearly three-fourths as long as ocellular line and nearly twice postocellar line; basal joint of flagellum about seven times as long as thick. Thorax polished, mesopleurum sparsely punctate, metapleurum obliquely rugose; pronotum with a high elevation on its anterior lateral margin surmounted by a high carina, epomia wanting; prescutum rather low, lateral lobes somewhat flattened; scutellum high, compressed;

subalar tubercle carinate; propodeum medially impressed from base to apophyses with a rounded elevation on each side at base, carina high and strongly curved medially, spiracles elongate, apophyses moderately long, straight, compressed, about midway between carina and apex; hind femur nearly twice as thick in middle as at apex, inner calcarium nearly half as long as basitarsus; areolet rather broad with recurrent shortly antefurcal, nervulus nearly interstitial, postnervulus broken a little above middle, nervellus broken above lower third. Abdomen minutely glutaceous; second tergite a little more than three times as long as broad at base and nearly as long as first; sheath about as long as hind tibia.

Head black and white; thorax and abdomen entirely and legs largely ferruginous; frontal and superior orbits, face, except medially, clypeus, mandibles, maxillary palpi, and annulus embracing flagellar joints 5-10 white, labial palpi reddish fuscous; hind femur piceous, darker above toward apex, tibia yellow, tarsus whitish; wings yellowish hyaline, veins black, stigma somewhat paler.

Type-locality.—Porto Bello, Panama.

Type.—Cat. No. 42176, U.S.N.M.

One specimen taken April 18, 1912, by August Busck.

8. POLYCYRTUS (POLYCYRTUS) INORNATUS, new species

Female.—Length 11 mm.

Differs from above description of *ornatifrons* as follows: Vertex weakly concave; frontal horn stout conical; mouth hardly as broad as narrowest width of face; temples from above more than a third as long as short diameter of eye; basal joint of flagellum fully eight times as long as thick. Anterior lateral margin of pronotum not at all prominent, carina strong, epomia short but distinct; mesopleurum impunctate, metapleurum weakly punctate; propodeum not at all impressed and without basal elevations, carina nearly straight medially, spiracles rather broadly oval, apophyses stouter, subconical, not compressed; inner hind calcarium about two-fifths as long as basitarsus, areolet small, recurrent strongly antefurcal, postnervulus broken at middle. Second tergite barely three times as long as broad at base and considerably shorter than first; sheath only about two-thirds as long as hind tibia.

Head including mandibles entirely black; palpi stramineous, the labial palpi darker; annulus beginning on fourth joint of flagellum; hind femur ferruginous.

Type-locality.—Rio Trinidad, Panama.

Type.—Cat. No. 42177, U.S.N.M.

One specimen taken March 27, 1912, by August Busck.

9. POLYCYRTUS (POLYCYRTUS) MINUTUS, new species

Female.—Length 6.5 mm.

Differs from above description of *ornatifrons* as follows: Vertex in front view straight; scrobes shallow, and partly defined on inner side by carinae running upward from each side of horn, latter short conical; face smooth; mouth barely as wide as narrowest width of face; temples from above nearly flat, about a third as long as short diameter of eye; diameter of ocellus hardly two-thirds as long as postocellar line; basal joint of flagellum slightly more slender, anterior lateral margins of pronotum not prominent, the carina rather low, epomia short but evident; mesopleurum and metapleurum practically unsculptured, propodeum not at all impressed, carina nearly straight medially, spiracles oval, apophyses short conical; areolet small; sheath about two-thirds as long as hind tibia.

Head black, clypeus, mandibles, and scape piceous, palpi pale stramineous; hind femur ferruginous; wings hyaline, veins brown, stigma stramineous.

Male.—Apophyses reduced to low tubercles; second tergite four times as long as broad at base; annulus on flagellar joints 8-14.

Type-locality.—Braganza, Para, Brazil.

Type.—Cat. No. 42178, U.S.N.M.

Allotype.—Paris Museum.

One of each sex, the type female taken by Miss H. B. Merrill, and the allotype male from Serra dos Orgaos, Province of Rio Janeiro, Brazil, where it was taken in March, 1902, by E. R. Wagner.

10. POLYCYRTUS (POLYCYRTUS) BOLIVIENSIS, new species

Female.—Length 9 mm.

Differs from the above description of *ornatifrons* as follows: Vertex in front view straight; frontal scrobes shallow, horn conical, the two pits above its base flanked outwardly by short strong carinae and separated by a prominent tubercle; face only obsoletely punctate; mouth barely as broad as narrowest width of face; temples from above nearly flat; barely a fourth as long as short diameter of eye; diameter of an ocellus nearly as long as ocell-ocular line and fully twice as long as postocellar line; basal joint of flagellum somewhat more slender. Metapleurum coarsely, subobsoletely punctate; anterior lateral margins of pronotum not prominent, the carina rather low; prescutum low and distinctly flattened; propodeum not impressed and without basal elevations, carina nearly straight medially, spiracles oval, apophyses a little nearer to carina than to apex; inner calcarium two-fifths as long as basitarsus; areolet small, recurrent strongly antefurcal. Abdomen polished; second tergite barely three times as long as broad at base, considerably shorter than first; sheath a little more than two-thirds as long as hind tibia.

Head black with only clypeus, mandibles, and annulus (middle of joint 4-joint 12) white, palpi stramineous; hind femur ferruginous; stigma pale.

Male.—Temples from above a third as long as short diameter of eye; apophyses reduced to low tubercles, much closer to apex than to carina; second tergite three and a half times as long as broad at base; pubescence of abdomen nearly black (reddish in female); annulus embracing flagellar joints 7-20.

Type-locality.—Canamina, Bolivia.

Type.—Cat. No. 42179, U.S.N.M.

Two of each sex collected in July by W. M. Mann on the Mulford Biological Exploration of 1921-22.

Very closely allied to *minutus* Cushman, from which it is at once distinguishable by its white clypeus and mandibles.

11. POLYCYRTUS (POLYCYRTUS) AREOLATUS, new species

Female.—Length 12 mm.

Differs from above description of *ornatifrons* as follows: Frontal horn small conical; frons above its base without pits or carinae; face impunctate; malar space fully as long as basal width of mandible, mouth barely as broad as narrowest width of face; occipital carina parallel with posterior margin of eye, not reaching hypostomal carina but its lower end not prominent, the space between it and hypostomal carina shallow; temples from above more than a third as long as short diameter of eye; diameter of an ocellus barely two-thirds as long as ocell-ocular line and not nearly twice as long as postocellar line; basal joint of flagellum somewhat more slender. Anterior lateral elevation of pronotum not so high, epomia short but distinct; lobes of mesoscutum convex; propodeum impressed only weakly basad of carina and without elevations flanking the impression, carina nearly straight medially, spiracles oval, apophyses long, curved, slightly nearer to apex than to carina, apical slope very steep; hind femur fully twice as thick in middle as at apex, inner calcarium barely a third as long as basitarsus; areolet very small, recurrent nearly interstitial. Second tergite only about two and a half times as long as broad at base and much shorter than first; sheath hardly two-thirds as long as hind tibia.

Head black, clypeus, mandibles, palpi, and annulus from middle of fourth joint of flagellum to eleventh joint white; hind femur ferruginous.

Type-locality.—Alhajuelo, Panama.

Type.—Cat. No. 42180, U.S.N.M.

One specimen taken April 7, 1911, by August Busck.

12. POLYCYRTUS (POLYCYRTUS) NIGRICLYPEATUS, new species

Female.—Length 13 mm.

Vertex in front view concave; frons with rather deep scrobes, horn stout conical with two small pits above base; eyes convergent below, comprising nearly two-thirds total width of head; face polished, with a median elevation, malar space much longer than basal width of mandible, slightly constricted, mouth hardly as broad as narrowest width of face; occipital carina in profile slightly convergent above with posterior margin of eye, very prominent below and separated from hypostomal carina by a deep groove; temples strongly concave, oblique, about a third as long as short diameter of eye; diameter of an ocellus little more than half as long as ocell-ocular line, but fully a half longer than postocellar line; basal joint of flagellum nearly ten times as long as thick. Thorax polished; anterior lateral carina of pronotum not especially high, epomia absent; prescutum elevated, lateral lobes of mesoscutum somewhat flattened; scutellum high, compressed; prepectal furrow only obsoletely foveolate; metapleurum obsoletely punctate in middle; propodeum medially impressed, especially basally where the impression is flanked by high rounded elevations, carina slightly curved medially, spiracles elongate, apophyses long, curved, much nearer carina than apex; hind femur slender, much less than twice as thick in middle as at apex; inner calcarium a little more than a third as long as basitarsus; areolet narrow, recurrent and nervulus interstitial or nearly; postnervulus broken in middle, nervellus at lower fourth. Abdomen narrow, second tergite more than four times as long as broad at base, broadly constricted near base, nearly as long as first; sheath almost exactly as long as hind tibia.

Head black with only mandibles, palpi, and flagellar joints 5–10 white, basal joint of maxillary palpus piceous; thorax immaculate ferruginous; legs concolorous, front pair paler, front and middle tarsi apically infusate, hind femur black except at base, tibia yellowish, tarsus whitish; wings hyaline, veins and stigma black; abdomen black, petiole ferruginous, other tergites apically and laterally white, the apical bands angulately broadened medially; venter white, gastrocoeli reddish.

Type locality.—Rio Trinidad, Panama.

Type.—Cat. No. 42181, U.S.N.M.

One specimen taken March 29, 1912, by August Busck.

13. POLYCYRTUS (POLYCYRTUS) IMPRESSUS, new species

Female.—Length 12 mm.

Similar in form to *nigriclypeatus* as described above but differing as follows: Frontal horn almost subclavate in profile; malar

space distinctly shorter than basal width of mandible, not distinctly constricted, mouth as broad as narrowest width of face; temples flat; diameter of ocellus two-thirds as long as ocell-ocular line; basal joint of flagellum about eight times as long as thick. Prescutum low; prepectal furrow distinctly foveolate; metapleurum more distinctly punctate, rugose posteriorly; propodeal carina subangulate medially, apophyses short, obtuse, about midway between carina and apex; hind femur thick, about twice as thick in middle as at apex; areolet broad, recurrent antefurcal; nervellus broken above basal third.

Clypeus white, palpi entirely white; annulus beginning at base of fourth joint of flagellum; pleura and sternum distinctly paler than dorsum; tegulae and scutellar carinae stramineous; tergites not definitely white margined apically.

Type locality.—Cavinas, Beni, Bolivia.

Type.—Cat. No. 42182, U.S.N.M.

One specimen taken in January, 1922, by W. M. Mann on the Mulford Biological Exploration.

14. POLYCYRTUS (POLYCYRTUS) PROMINENS, new species

Female.—Length 14 mm.

Differs from the foregoing description of *nigriclepeatus* as follows: Frontal horn more slender, nearly cylindrical, rounded at apex; face faintly alutaceous, malar space much shorter than basal width of mandible, hardly constricted, mouth fully as broad as narrowest width of face; basal joint of flagellum eight times as long as thick. Anterior lateral angles of pronotum very prominent, the carina high; prescutum low, prepectal furrow distinctly foveolate; metapleurum rugoso-punctate in middle; propodeum less deeply impressed, the basal elevations not so high, carina more strongly curved medially, apophyses shorter, straight, compressed, fully as close to apex as to carina; hind femur nearly twice as thick in middle as at apex; inner calcarium two-fifths as long as basitarsus; areolet rather broad, recurrent antefurcal; nervulus postfurcal, post-nervulus broken slightly above middle, nervellus above basal fourth; second tergite little more than three times as long as broad at base, considerably shorter than first; sheath distinctly shorter than hind tibia.

Face and clypeus as well as mouthparts white; pleura and sternum paler than dorsum; wings more yellowish; apical white bands of tergites of nearly uniform width.

Type locality.—Rurrenabaque, Rio Beni, Bolivia.

Type.—Cat. No. 42183, U.S.N.M.

One specimen from the Mulford Biological Exploration taken by W. M. Mann, October, 1921.

15. POLYCYRTUS (POLYCYRTUS) CONVERGENS, new species

Female.—Length 15 mm.

Differs from foregoing description of *nigriclypeatus* as follows: Vertex in front view very strongly concave; frontal horn more slender, cylindrical with apex rounded; the pits above base large, face sparsely weakly punctate and with an obliquely longitudinal impression on each side rather than a median elevation; malar space much shorter than basal width of mandible; mouth fully as broad as narrowest width of face; diameter of an ocellus two-thirds as long as ocell-ocular line; first flagellar joint hardly eight times as long as thick. Anterior lateral margin of pronotum strongly angulate, the carina high; prescutum low; metapleurum distinctly though sparsely punctate in middle; propodeum much more shallowly impressed, the impression extending only a short distance behind the carina, basal elevations much less prominent, carina more strongly bent medially, apophyses much shorter, straight, compressed, midway between carina and apex; hind femur nearly twice as thick in middle as at apex; inner calcarium two-fifths as long as basitarsus; areolet rather broad, recurrent antefurcal, nervellus broken just above lower third. Second tergite about three and one-half times as long as broad at base; sheath distinctly shorter than hind tibia.

Face and clypeus as well as mouthparts white; annulus beginning on fourth joint of flagellum; apex of scutellum and postscutellum blackish; petiole largely black above, pale below; extreme apex of pospetiole white, apical white bands of other tergites of uniform width, not broadened medially.

Type-locality.—Yarhuarmayo, Peru.

Type.—Cat. No. 42184, U.S.N.M.

One specimen taken by C. H. T. Townsend.

16. POLYCYRTUS (POLYCYRTUS) ISTHMUS, new species

Female.—12 mm.

Vertex in front view shallowly concave; frons with scrobes deep but not defined on inner side, horn stout, conical, with a tubercle above its base; eyes convergent below and comprising nearly two-thirds total width of head at antennae; face shining, minutely alutaceous and sparsely punctate, shallowly impressed on each side of middle; malar space much shorter than basal width of mandible, hardly constricted, mouth fully as broad as narrowest width of face; temples in side view broad, convergent above with posterior margin of eye, occipital carina very high below, where it recurves sharply to meet the hypostomal carina far beyond middle of latter with a narrow notch just before the junction, hypostomal carina very high

beyond and low before junction; temples from above strongly concave, little more than a fourth as long as short diameter of eye; diameter of an ocellus hardly two-thirds as long as ocell-ocular line; basal joint of flagellum about seven times as long as thick. Thorax polished, virtually impunctate; anterior lateral margin of pronotum prominent and with a moderately high carina, epomia complete and very strong; prescutum rather prominent, lateral lobes somewhat flattened and longitudinally subsulcate; prepectal furrow not foveolate; subalar tubercle carinate; metapleurum with a few minute punctures; propodeum weakly longitudinally impressed medially, with a low elevation on each side of middle basally, carina arching slightly forward in middle, spiracle elongate oval, apophyses short, stout, compressed, nearer to carina than to apex; hind femur hardly twice as thick in middle as at apex, inner calcarium hardly three-fifths as long as basitarsus; areolet rather small, broad and short, recurrent strongly antefurcal, nervulus antefurcal, postnervulus broken slightly above middle, nervellus at lower third. Abdomen polished; second tergite about three times as long as broad at base, nearly as long as first; sheath about three-fourths as long as hind tibia.

Head and abdomen black and white, thorax ferruginous; face except medially, clypeus, mandibles, malar space and lower cheeks, frontal and superior orbits, maxillary palpi, annulus embracing flagellar joints 5-12 and apex of 4, apical margins of all tergites, and lateral margins of all but first two, and hind tarsus white; petiole ferruginous; hind femur piceous, tibia yellow, legs otherwise ferruginous; wings hyaline, veins black, stigma brown.

Type-locality.—Rio Trinidad, Panama.

Type.—Cat. No. 42185, U.S.N.M.

One specimen taken March 23, 1912, by August Busck.

17. POLYCYRTUS (POLYCYRTUS) PARVICLAVUS, new species

Female.—Length 12 mm.

Vertex in front view weakly concave; frons with poorly defined scrobes, horn very short, conical; eyes strongly convergent below, comprising distinctly less than two-thirds total width of head at level of antennae; face polished, rather deeply impressed each side of middle; malar space distinctly shorter than basal width of mandible, constricted, mouth barely as broad as narrowest width of face; occipital carina parallel with posterior margin of eye, recurving at lower end to join hypostomal carina and with a very small notch just before junction, hypostomal carina rather low; temples from above oblique, flat, nearly half as long as short diameter of eye; diameter of an ocellus less than two-thirds ocell-ocular line and only a little longer than postocellar line; basal joint of flagellum about

ten times as long as thick. Thorax polished; anterior lateral margin of pronotum not prominent, the carina low; epomia obsolete; prescutum convex, lateral lobes flattened; scutellum high, strongly compressed; mesopleural furrows weakly foveolate; propodeum weakly triangularly impressed in basal middle, carina broadly arched toward front, spiracles elongate, apophyses short conical, widely separated, nearer to carina than to apex, space between flat; hind femur less than twice as thick in middle as at apex; inner calcarium nearly two-fifths as long as basitarsus; areolet rather narrow, recurrent and nervulus antefurcal, postnervulus broken in middle, nervellus broken at lower fourth. Abdomen very slender, second tergite about five times as long as broad at base and as long as first, broadly constricted near base; sheath about one and a half times as long as hind tibia.

Head black; clypeus reddish yellow; mandibles whitish along front margin; maxillary palpi stramineous; labial palpi fuscous; antennae (broken) with a broad white annulus beginning on fifth flagellar joint; thorax ferruginous, immaculate; legs testaceous to stramineous, hind femur black, trochanters partly piceous, tibia yellowish, tarsus whitish, front and middle tarsi dark apically; wings rather strongly yellowish infumate, venation black, stigma paler, tegulae ferruginous; abdomen black, first segment ferruginous except at apex; other tergites narrowly white at apex, more broadly so laterally, gastrocoeli red.

Type-locality.—Rio Charape, Peru.

Type.—Cat. No. 42186, U.S.N.M.

One specimen taken September 13, 1911, by C. H. T. Townsend.

18. POLYCYRTUS (POLYCYRTUS) PARANENSIS, new species

Female.—Length 12 mm.

Compared with the above description of *parvi clavus* differs as follows: Frontal horn larger and stout conical; eyes weakly convergent, comprising nearly two-thirds total width of head at antennae; occipital carina in side view convergent above with posterior margin of eye, more prominent and with a deep notch just before its junction with the hypostomal carina, latter high beyond junction; temples hardly a third as long as short diameter of eye; diameter of an ocellus fully two-thirds as long as ocell-ocular line and much longer than postocellar line; basal joint of flagellum not quite so slender. Anterior lateral carina of pronotum high; epomia strong below, obsolete above; mesopleural furrow distinctly foveolate; metapleurum obliquely rugose in posterior half; spiracles broadly oval; apophyses rather long, compressed; areolet rather

small, short, nervulus antefurcal, nervellus broken at lower third. Abdomen stouter, second tergite only about three times as long as broad at base, distinctly shorter than first; sheath hardly as long as hind tibia.

Clypeus and mandibles white; maxillary palpi white, labial palpi testaceous; hind femur ferruginous.

Type-locality.—Para, Brazil.

Type.—Cat. No. 42187, U.S.N.M.

One specimen taken by Miss H. B. Merrill.

19. POLYCYRTUS (POLYCYRTUS) BREVIGENALIS, new species

Female.—Length 11 mm.

Vertex in front view concave; frons with scrobes rather deep, horn long, rather slender, obtuse at apex, with two pits above at base; eyes weakly convergent below and comprising nearly two-thirds total width of head at level of antennae; face minutely alutaceous and distinctly punctate, impressed on each side of middle; malar space much shorter than basal width of mandible, constricted, mouth hardly as broad as narrowest width of face; temples in side view slightly convergent above with posterior margin of eye, occipital carina low, not reaching hypostomal carina; from which its lower end is separated by a broad, shallow groove, hypostomal carina rather high; temples from above flat, very weakly oblique, barely a fourth as long as short diameter of eye; diameter of an ocellus about two-thirds as long as ocell-ocular line. Thorax polished, anterior lateral margin of pronotum with a rather prominent elevation, the carina high, epomia short but distinct; prescutum strongly convex, lateral lobes slightly flattened; scutellum high, compressed; mesopleurum practically impunctate, prepectal furrow obsoletely foveolate, subalar tubercle carinate; propodeum flattened in basal middle, carina high and perfectly straight medially, spiracle elongate oval, apophyses long, slender, curved, midway between carina and apex; hind femur nearly twice as thick in middle as at apex, inner calcarium a little more than a third as long as basitarsus; areolet of normal form, recurrent antefurcal, nervulus interstitial, postnervulus broken in middle, nervellus at lower third. Abdomen polished, minutely alutaceous beyond second tergite, second tergite about four times as long as broad at base, as long as first, broadly constricted near base; sheath not quite so long as hind tibia.

Head black; clypeus, mandibles, and maxillary palpi white; labial palpi testaceous; annulus from middle of fourth joint of flagellum to eleventh joint; thorax and legs ferruginous, hind femur dark piceous, tibia yellow, tarsus white; wings hyaline, veins brown,

stigma paler; abdomen black, first segment largely ferruginous, other tergites apically and laterally white.

Type-locality.—Trinidad Rio, Panama.

Type.—Cat. No. 42188, U.S.N.M.

One female taken June 6, 1912, by August Busck.

20. POLYCYRTUS (POLYCYRTUS) SULCATILOBUS, new species

Female.—Length 13 mm.

Vertex in front view flat; frons with scrobes shallow, horn very thick conical with a large pit on each side of its dorsal surface; eyes weakly convergent below, comprising much less than two-thirds total width of head; face shallowly impressed on each side of middle, minutely alutaceous, distinctly, sparsely punctate above; malar space as long as basal width of mandible, cheeks in front view convex, mouth as broad as narrowest width of face; temples in side view very broad, occipital carina convergent above with posterior margin of eye, rather low, straight and joining hypostomal carina at its outer third, latter very high beyond junction; diameter of an ocellus hardly two-thirds as long as ocell-ocular line and shorter than postocellar line. Thorax polished; pronotum longitudinally striate in middle of posterior margin, anterior lateral margin with the carina high, epomia strong and forming a carinate angle at anterior end of welt-like humeral margin; prescutum rather low; lateral lobes each with a deep sulcus in middle; scutellum not elevated; prepectal carina obsolete above; subalar tubercle not carinate; metapleurum sparsely punctate anteriorly, obliquely rugose posteriorly; propodeum medially impressed basally as far as apophyses, carina curving sharply forward medially, spiracle elongate oval, apophyses stout conical, closer to carina than to apex; hind femur much less than twice as thick in middle as at apex, inner calcarium two-fifths as long as basitarsus; areolet normal, recurrent and nervulus antefurcal, postnervulus broken at middle, nervellus at lower third. Abdomen stout, second tergite two and a half times as long as broad at base, much shorter than first; sheath slightly shorter than hind tibia.

Head black; orbits, temples, cheeks and malar space, palpi, apex of horn, and annulus on flagelar joints 6–12 and apex of 5 white; prothorax black and white, the propleura and lower and humeral margins of pronotum broadly white; mesoscutum black with two lines on disk white; scutellum apically and the carinae white; post-scutellum white, the lateral areas black; mesopleurum ferruginous with upper margin black and a large triangular spot in upper anterior angle white; metapleurum ferruginous with a white spot in its upper division; propodeum ferruginous; legs ferruginous with

hind tibia slightly paler and tarsus yellowish; wings hyaline, veins brown, stigma paler, tegulae white; abdomen ferruginous.

Type-locality.—Pernambuco, Brazil.

Type.—Cat. No. 42189, U.S.N.M.

One specimen, March 1, 1883.

21. POLYCYRTUS (POLYCYRTUS) SALADONIS, new species

Female.—Length 13 mm.

Very similar to *sulcatilobus*, from the foregoing description of which it differs only as follows: Occipital carina in side view parallel with posterior margin of eye; lateral lobes of mesoscutum obsolete sulcate; upper anterior angle of mesopleurum longitudinally rugose; metapleurum rugose over most of its area; propodeum rugose punctate apically, impressed only basad of carina, apophyses long; hind femur even more slender. Mandibles white; frontal horn entirely black; orbits narrowly interrupted behind top of eye.

Male.—Antennal annulus beginning on seventh flagellar joint; apophyses very short conical; metapleurum smooth. Otherwise, except sexually, like female.

Type-locality.—Chaco de Santiago del Estero, Rio Salado, near d'Icano, Argentina.

Type.—Paris Museum.

Allotype.—Cat. No. 42190, U.S.N.M.

One of each sex collected by E. R. Wagner in 1904.

22. POLYCYRTUS (POLYCYRTUS) PROXIMANNULATUS, new species

Figure 2

Female.—Length 14 mm.

Vertex and frons concave, horn large conical with an obscurely defined impression on frons and above its base; eyes distinctly convergent below and comprising distinctly less than two-thirds total width of head; face slightly raised medially, impressed above on each side; malar space slightly longer than basal width of mandible, constricted above base of mandible; mouth hardly as broad as narrowest width of face; occipital carina slightly convergent above with posterior margin of eye, very prominent below and separated by a broad deep furrow from hypostomal carina, latter moderately high and curving outward at its highest point (fig. 2); temples rather weakly oblique, strongly concave, hardly a third as long as short diameter of eye; diameter of lateral ocellus two-thirds ocellular line, much less than twice postocellar line; first joint of flagellum fully eight times as long as apical thickness. Thorax polished, vir-

tually without sculpture except metapleurum, which is irregularly transversely rugose; pronotum not tumid on dorsal margin, lateral anterior margin with a high carina, epomia present, short; prepectus high, lateral lobes flattened, notauli confluent posteriorly; scutellum very high, strongly compressed; mesopleural furrow distinctly, prepectal furrow obscurely, foveolate, subalar tubercle low and with a weak carina traversing its summit; propodeum polished, unsculptured, basal middle triangularly flattened with anterior angles prominent, spiracles large, broadly oval, basal carina very high sinuate, apophyses very long, slender, curved, and situated much nearer carina than apex; hind femur distinctly thicker in middle than at ends; inner calcarium about two-fifths as long as basitarsus; areolet only a little longer than broad, recurrent antefurcal, nervulus interstitial, postnervulus broken at middle, nervellus broken at lower fourth. Abdomen rather broad, rather densely clothed with long white hair, first tergite and base of second narrow, second much shorter than first, more than three times as long as broad at base, postpetiole hardly twice as broad as petiole; sheath as long as hind tibia and nearly twice as long as first tergite.

Head black; mandibles partly, palpi and annulus extending from near base of third to fifteenth flagellar joint white; thorax pale reddish stramineous; pronotum in dorsal middle, mesoscutum, scutellum and postscutellum black; scutellar carinae white; propodeum basad of carina and between spiracles dark piceous, medially behind carina slightly stained; front and middle legs stramineous, femora posteriorly darker, the front femur testaceous and middle femur piceous, tarsus blackish apically; hind coxa pale testaceous, trochanter and femur piceous, the femur nearly black, tibia and tarsus whitish, the tibia tinged with yellow; wings hyaline, faintly yellowish, venation black with stigma pale along middle, tegulae stramineous with a white longitudinal stripe, apex piceous; abdomen black dorsally, white laterally and ventrally.

Type-locality.—Canamina, Bolivia.

Type.—Cat. No. 42191, U.S.N.M.

One specimen taken in July by W. M. Mann on the Mulford Biological Exploration of 1921-22.

23. POLYCYRTUS (POLYCYRTUS) CONSTRICTICLAVUS, new species

Female.—Length 14 mm.

Vertex hardly concave in straight front view, but with a rather deep impression on each side of ocellar area; frons with distinct scrobes bounded on the outer side by ridges and on the inner side by the subcarinate margins of a median impression, frontal horn stout, obtuse at apex with a deep constriction toward base, basad of

which on the upper side are two deep pits separated by a thick ridge; eyes convergent below, comprising nearly two-thirds total width of head; face sparsely punctate, very finely coriaceous, subopaque, with a deep, narrow impression each side of middle; malar space opaque, much shorter than basal width of mandible, slightly concave; mouth as broad as narrowest width of face; occipital carina convergent above with posterior margin of eye, prominent below and separated by a deep, rather narrow furrow from hypostomal carina, latter high apically; temples flat, very weakly oblique, barely a fourth as broad as short diameter of eye; diameter of ocellus three-fourths ocellular line and about twice postocellar line; first joint of flagellum about eight times as long as thick at apex. Thorax polished, with a few scattered punctures on pronotum and mesopleurum and the metapleurum strongly obliquely rugose, this rugosity extending to the sides of the propodeum behind the apophyses; pronotum tumid above with impressions opposite the notauli; anterior marginal carina very high, epomia absent; prescutum moderately high, lateral lobes slightly flattened, notauli not confluent; scutellum moderately high, compressed, lateral areas very deeply impressed, with a few large foveolae at bottom of impression; mesopleural and prepectal furrows foveolate, upper portion of prepectus and humeral angle of mesopleurum rugulose, subalar tubercle very low, surrounded by a strong carina; propodeum polished, basal middle concave, carina high, bent forward medially, spiracles large, elongate; apophyses short, stout, very slightly nearer to carina than to apex, space between carina and apophyses with a narrow median channel and a few obscure posteriorly convergent rugae; hind femur rather stout, nearly twice as thick in middle as at extremities; inner calcarium two-fifths as long as basitarsus; areolet rather short, recurrent and nervulus antefurcal; postnervulus broken below middle, nervellus broken very slightly below middle. Abdomen narrow, hairs sparse, fine and short; postpetiole barely twice as broad as petiole; second tergite a little shorter than first and about three times as long as broad at base; sheath shorter than hind tibia.

Head black; clypeus except margins, mandibles and annulus beginning at middle of fifth flagellar joint white; palpi stramineous; thorax reddish testaceous laterally and ventrally, pronotum medially, mesoscutum, scutellum, and postscutellum black, scutellar carinae white; propodeum basad of carina and medially behind carina piceous; legs stramineous to testaceous, the front and middle femora darker behind, their tarsi blackish apically; hind trochanter and femur blackish, tibia yellow, tarsus whitish; wings hyaline, faintly yellowish, venation black, tegulae stramineous, whitish on inner edge and piceous at apex; abdomen black dorsally, whitish laterally and ventrally.

Type-locality.—Serra dos Orgaões, State of Rio Janeiro, Brazil.

Type.—In Paris Museum.

One specimen taken in 1902 at an altitude of 500–1,000 meters by E. R. Wagner.

24. POLYCYRTUS (POLYCYRTUS) MEDIALBUS, new species

Female.—Length 10 mm.

Vertex in direct front view not at all concave but with rather deep grooves flanking the lateral ocelli; frons with poorly defined scrobes but with a deep median furrow that forks above to about half surround the anterior ocellus and ends below in a deep pit above the base of the stout acutely pointed horn; eyes slightly convergent below and comprising distinctly less than two-thirds of total width of head; face polished with a shallow groove each side of middle; malar space opaque, hardly as long as basal width of mandible, slightly constricted; mouth hardly as broad as narrowest width of face; occipital carina very nearly parallel with posterior margin of eye, prominent below and with a small notch separating it from hypostomal carina, latter high apically; temples flat, oblique, more than a third as long as short diameter of eye; diameter of ocellus three-fourths ocell-ocular line and more than twice postocellar line; basal joint of flagellum hardly eight times as long as thick. Thorax polished, unsculptured except that metapleurum is obscurely roughened; pronotum with anterior lateral carina moderately high but without epomia, humeral margin somewhat tumid; prescutum rather low, lateral lobes slightly flattened; scutellum rather low, weakly compressed; mesopleurum with furrows foveolate and a few rugae in humeral angle; propodeum polished, carina rather low, bent slightly forward medially, spiracle small, nearly circular, apophyses of moderate size, midway between carina and apex; hind femur about twice as thick in middle as at extremities; inner calcarium two-fifths as long as basitarsus; areolet of normal form and size, recurrent strongly antefurcal, nervulus interstitial, postnervulus broken at middle, nervellus broken just above lower third. Abdomen rather slender, postpetiole barely twice as broad as petiole, second tergite a little more than three times as long as broad at base and very nearly as long as first; sheath broken but apparently much shorter than hind tibia.

Head black; clypeus except margins, mandibles, and annulus from middle of flagellar joint 5 to joint 11 white; palpi stramineous; thorax ferruginous; pronotum dorsally piceous; mesoscutum black, scutellum ferruginous with carinae and apex white, postscutellum and apophyses apically white; front and middle legs testaceous with front coxae anteriorly and tibiae stramineous, tarsi fus-

cous toward apex, hind coxa and trochanter testaceous, femur blackish, tibia yellow, tarsus white; wings faintly yellowish hyaline, venation dark, stigma pale in middle, tegulae piceous, whitish at base; abdomen black above, white laterally and ventrally, petiole pale reddish above, tergites 2-6 with a median apical white spot and more or less distinct narrow reddish to whitish margins.

Type-locality.—Serra dos Orgãos, State of Rio Janeiro, Brazil.

Type.—In Paris Museum.

One specimen taken in 1902 at an altitude of 500-1,000 meters by E. R. Wagner.

25. POLYCYRTUS (POLYCYRTUS) XANTHOTHORAX Brullé

Mesostenus (Polycyrtus) xantho-thorax BRULLÉ, Hist. Nat. Inst. Hym., vol. 4, 1846, p. 213, male.—SZEPLIGETI, Ann. Mus. Nat. Hung., vol. 14, 1916, p. 274 (part).

The evaluation of certain characters of color and also of structure in this genus is very difficult with the limited amount of material that I have had for study, but I doubt very much if all the specimens placed under this species by Szepligeti belong here. Certainly he can not be considered consistent in his treatment of color characters when he used the color of the clypeus for separating species in his key and then admits a form with white face as a variety of a black-faced species.

The two specimens that I place here differ from Brullé's description apparently only in the color of the hind trochanters, which in the type are said to be black. Of the two specimens before me one has the trochanters testaceous and the other has them piceous. These specimens are both males from Brazil and both collected by E. R. Wagner, one in Minas Geraës (the type-locality) and the other in the Serra dos Orgãos.

As thus identified this species is very closely related to *medialbus* Cushman, differing, aside from sexual characters, only in having above the frontal horn two rather deep pits separated by a small tubercle and in lacking a median frontal groove; the space between the lower end of the occipital carina and the hypostomal carina is broader; the epomia are slightly developed; the scutellum is more elevated; the propodeal spiracles are distinctly oval; the apophyses are long, slender, and curved; the scutellum is stained with piceous; the tegulae are largely stramineous; and the tergites lack the apical white spots though having the margins reddish. In the male the antennal annulus begins on the eighth flagellar joint.

The female is unknown to me unless it is to be found in the next preceding or the next following species.

26. POLYCYRTUS (POLYCYRTUS) ATRINASUTUS, new species

Female.—Length 9 mm.

This may prove to be the female of *xanthothorax* Brullé though it differs from the males that I have determined as that species in lacking the two pits at the base of the frontal horn though possessing the tubercle, and in having the clypeus entirely and mandibles partly black and the pronotum and propleura largely so. Otherwise in the structural and colorational characters mentioned under *xanthothorax* it agrees with that species and differs from *medialbus* Cushman. From *medialbus* it differs further in having the malar space as long as basal width of mandible, the ocelli smaller; basal joint of flagellum more slender; second tergite distinctly shorter than first and hardly three times as long as broad at base; sheath nearly as long as hind tibia. Clypeus black; mandibles largely black; annulus beginning at base of joint 5; pronotum and propleura largely black; scutellum at apex, postscutellum, and apophyses red, the scutellum stained with piceous; front and middle legs darker, not at all stramineous; tergites without median white spots, apically narrowly reddish.

Type-locality.—Minas Geraës, Brazil.

Type.—In Paris Museum.

One specimen taken at 1,000 meters by E. R. Wagner in 1903.

27. POLYCYRTUS (POLYCYRTUS) COCKERELLAE Viereck

Polycyrtus cockerellae VIERECK, Proc. U. S. Nat. Mus., vol. 43, 1912, p. 593, female.

Female.—Length 13 mm.

Vertex in front view concave; frons with poorly defined scrobes, horn rather small conical; eyes slightly convergent below and comprising nearly two-thirds total width of head; face polished, slightly impressed each side of middle, weakly punctate in impressions; malar space opaque, distinctly shorter than basal width of mandible, weakly constricted; mouth as broad as narrowest width of face; occipital carina convergent above with posterior margin of eye, with only a small notch at its lower end, where it joins the hypostomal carina, latter rather low; temples from above flat, nearly perpendicular to longitudinal axis of body, little more than a fourth as long as short diameter of eye; diameter of ocellus two-thirds ocell-ocular line and distinctly longer than postocellar line; basal joint of flagellum fully eight times as long as thick. Thorax and propodeum polished, nearly unsculptured; pronotum with anterior lateral carina short but high, epomia strong but not ascending to dorsal margin, humeral margin weakly tumid, lower angle longitudinally striate; prescutum not especially prominent, lateral

lobes flattened; mesopleural furrow foveolate throughout, prepectal furrow only above, humeral angle rugulose, subalar tubercle carinate; propodeum flat in basal middle, carina broadly curved toward front, spiracles large elongate, apophyses rather small, slightly compressed, as thick in middle as at ends, inner calcarium little more than a third as long as basitarsus; areolet small, recurrent strongly antefurcal, nervulus interstitial, postnervulus broken at middle, nervellus nearly four times as long as broad at base and as long as first; sheath as long as hind tibia.

Head black and white; face, except in middle above, clypeus, mandibles, frontal and superior orbits, spot in posterior orbits, and annulus embracing flagellar joints 5-11 white; maxillary palpi stramineous, labial palpi fuscous; pronotum, mesonotum, metanotum, and propodeum basad of carina black; propleura, anterior, lower, and humeral margins of pronotum, apex and sides of scutellum and basal carinae, postscutellum and apophyses white; thorax and propodeum otherwise pale testaceous; front and middle legs testaceous, paler basally and anteriorly, their tarsi largely brown; hind leg testaceous, trochanter and femur very pale below, tibia yellowish, tarsus whitish; wings hyaline, venation brown, stigma paler, tegulae white with apex stramineous; abdomen black above, whitish laterally, first tergite apically, second basally and apically, the gastrocoeli, and other tergites apically, whitish.

Guatemala. Known only from the unique type.

28. POLYCYRTUS (POLYCYRTUS) INQUINATUS, new species

Female.—Length 13 mm.

From *cockerellae*, to which it is rather closely related, it differs as follows: Vertex hardly concave; eyes comprising much less than two-thirds total width of head; malar space subequal to basal width of mandible; cheeks in front view convex; occipital carina very nearly parallel to posterior margin of eye; temples strongly oblique, nearly half as long as short diameter of eye; diameter of ocellus less than two-thirds as long as ocell-ocular line and little longer than the postocellar line; basal joint of flagellum only about six times as long as thick. Epomia longer, causing the tumid humeral welt of pronotum to appear angulate from above; prescutum more elevated; subalar tubercle not carinate; propodeum slightly impressed in basal middle; carina nearly straight, spiracle broadly oval; apophyses longer, more slender and hardly compressed; hind femur more slender; areolet larger, recurrent nearly interstitial, nervulus antefurcal. Second tergite barely three times as long as broad at base; sheath hardly as long as hind tibia.

Posterior orbits white, interrupted behind top of eye; annulus beginning on sixth joint of flagellum; lateral margin of mesoscutum pale reddish; scutellum black at sides; spot below subalar tubercle

piceous; propodeum piceous above to apex, broadly so before apophyses, more narrowly so behind; hind trochanter and femur blackish to piceous; second tergite not white at extreme base.

Male.—Essentially like female.

Type-locality.—Villa Lutecia, near San Ignacio, Misiones, Argentina.

Type.—In Paris Museum.

Allotype.—Cat. No. 42192, U.S.N.M.

One of each sex taken by E. R. Wagner in 1910.

29. *POLYCYRTUS (POLYCYRTUS) MEDIOTINCTUS*, new species

Female.—Length 13 mm.

Differs from above description of *cockerellae* as follows: Vertex very shallowly concave; frontal horn large conical, eyes nearly parallel within and comprising much less than two-thirds total width of head; face minutely alutaceous, impunctate, slightly swollen next to the eyes; occipital carina nearly parallel with posterior margin of eye, hardly notched at its junction with hypostomal carina; temples from above oblique, about two-fifths as long as short diameter of eye; diameter of ocellus less than two-thirds as long as ocell-ocular line. Pronotum with anterior lateral carina rather low, epomia forming a carinate angle at anterior end of weltlike humeral margin, lower half of posterior margin foveolate; lateral lobes of mesoscutum longitudinally subimpressed; subalar tubercle not carinate; propodeum slightly impressed in basal middle, spiracles large oval, apophyses longer, slender, and slightly curved; nervulus antefurcal, postnervulus broken above middle, nervellus at lower fourth. Second tergite less than three times as long as broad at base.

Lower posterior orbits and cheeks also white; collar black; scutellum white in middle but not at sides; propodeum black basad of carina, piceous beyond, this color fading out beyond apophyses; thorax otherwise paler, nearly stramineous; hind femur piceous throughout; second tergite basally black, gastrocoeli reddish.

Type-locality.—Tegucigalpa, Honduras.

Type.—Cat. No. 42193, U.S.N.M.

Two females collected April 5, 1917, by F. J. Dyer.

30. *POLYCYRTUS (POLYCYRTUS) AREOLARIS*, new species

Female.—Length 14 mm.

Vertex in front view nearly straight, frons with shallow, poorly defined scrobes, horn stout conical; eyes nearly parallel within, comprising much less than two-thirds total width of head at level of antennae, the inner margin faintly concave arcuate, face polished, minutely alutaceous laterally, longitudinally impressed on each side

of middle, punctate above; malar space a little longer than basal width of mandible, slightly constricted, mouth barely as broad as narrowest width of face, cheeks slightly convex; temples in side view broad, occipital carina weakly convergent above with posterior margin of eye, not prominent below but terminating some distance from hypostomal carina, latter moderately high; temples from above nearly flat, oblique, about a third as long as short diameter of eye; diameter of an ocellus about two-thirds as long as ocell-ocular line. Thorax polished; pronotum striate along posterior margin, the striae reaching into the scrobe in middle, anterior lateral carina moderately high, epomia strong, angulating the anterior end of the swollen humeral margin; prescutum moderately high, lateral lobes with weak longitudinal sulcus; scutellum rather low; mesopleural furrow finely foveolate, prepectal furrow foveolate only above, subalar tubercle not carinate; metapleurum with a few small punctures; propodeum with a narrow basal area defined laterally by carinae, transverse carina narrowly arched forward medially, spiracle large, elongate ovate, apophyses rather short stout conical, much nearer to carina than to apex; hind femur distinctly less than twice as thick in middle as at apex; inner calcarium hardly two-fifths as long as basitarsus; areolet large, recurrent and nervulus antefurcal; post-nervulus broken just above middle, nervellus at lower third. Abdomen broad, second tergite hardly two and a half times as long as broad, much shorter than first; sheath distinctly longer than hind tibia.

Head black and white; face, clypeus, except apical margin, orbits, temples, cheeks, spot at base of mandible, maxillary palpi, labial palpi basally, annulus embracing flagellar joints 6-11 and apical half of 5, white; prothorax, mesonotum, and metanotum black, propleura, anterior-lateral and humeral margins of pronotum, two lines on disk of mesoscutum, apex of scutellum and the carinae, apex of postscutellum, white; thorax otherwise and propodeum largely ferruginous; upper margin of mesopleurum black; subalar tubercle, upper division of metapleurum partly, and apices of apophyses white; median stripe on propodeum and a small spot at upper edge of spiracle piceous black; legs ferruginous, hind tibia yellowish, tarsus whitish; wings yellowish hyaline, venation brown, stigma paler, tegulae white; abdomen black and white, the tergites broadly white apically and laterally, the second with a transverse subtriangular white spot medially near base.

Male.—Essentially like female. Annulus on flagellar joints 8-16.

Type-locality.—Rio Trinidad, Panama.

Type.—Cat. No. 42194, U.S.N.M.

Two specimens, both collected by August Busck, the type female on March 20 and the allotype on March 30, 1912.

31. POLYCYRTUS (POLYCYRTUS) CIRCUMFLUENS, new species

Female.—Length 12 mm.

Closely related to *areolaris* Cushman, from the foregoing description of which it differs only as follows: Eyes more strongly convergent below; propodeum weakly longitudinally impressed, without a defined basal area, carina nearly straight; abdomen more slender, second tergite fully three times as long as broad at base.

Propodeum without piceous markings; second tergite with an elongate oval subbasal white spot.

Male.—Essentially like female. Annulus embracing flagellar joints 8-16 (broken at this point).

Type-locality.—Cayenne, French Guiana.

Type.—Female in Paris Museum.

Allotype.—Cat. No. 42195, U.S.N.M.

One of each sex collected by R. Benoist in 1914.

32. POLYCYRTUS (POLYCYRTUS) MANNI, new species

Female.—Length 12 mm.

Vertex in front view shallowly concave; frons with scrobes poorly defined, horn stout conical; eyes rather weakly convergent below, inner margins faintly concavely arcuate; face impressed on each side of middle, punctate above; malar space distinctly shorter than basal width of mandible, not constricted, mouth fully as broad as narrowest width of face; temples in side view rather narrow, occipital carina nearly parallel with posterior margin of eye, reaching the hypostomal carina and without a distinct notch next to hypostomal carina; temples from above oblique, flat, a little more than a fourth as long as short diameter of eye; diameter of ocellus two-thirds as long as ocell-ocular line and only a little longer than post-ocellar line; basal joint of flagellum hardly eight times as long as thick. Thorax polished; pronotum longitudinally striate in middle of posterior edge; anterior lateral carina prominent, epomia strong, angulating the weltlike humeral margin; prescutum rather high; lateral lobes subsulcate; mesopleurum rugulose in upper anterior angle, subalar tubercle not carinate, both prepectal and mesopleural furrows foveolate; metapleurum coarsely punctate in middle; propodeum weakly impressed in basal middle, with a narrow median groove from carina backward to a point between the apophyses, carina arched sharply forward medially, spiracles broadly oval, apophyses moderately long, slender and weakly curved, much nearer to carina than to apex; hind femur hardly twice as thick in middle as at apex, inner calcarium two-fifths as long as basitarsus; areolet large, recurrent and nervulus antefurcal, postnervulus broken slightly above middle, nervellus at lower fourth. Abdomen stout, second

tergite two and a half times as long as broad at base and distinctly shorter than first, sheath as long as hind tibia.

Head black with the following white: Face, clypeus, orbits except narrow interruption in malar space (the posterior orbits narrowly so), maxillary palpi and bases of labial palpi, and annulus embracing flagellar joints 5-11 and most of 4; thorax black anteriorly and dorsally, ferruginous laterally and ventrally as is also the propodeum; ventral extremities of propleura pale ferruginous and white with apex stramineous; margins and small spot on lower anterior margin of pronotum, two discal lines on mesoscutum apices of scutellum and postscutellum, and scutellar carinae white; upper portion of mesopleurum black with subalar tubercle white; upper division of metapleurum partly whitish; propodeum with a longitudinal dash of black crossing the carina, apophyses whitish apically; legs ferruginous, hind tibia yellowish, tarsi whitish; wings hyaline, venation brown, stigma pale in middle, tegulae white; abdomen black and white with petiole red and apical margin of first tergite and apical and lateral margins of others white.

Type-locality.—Rurrenabaque, Rio Beni, Bolivia.

Type.—Cat. No. 42196, U.S.N.M.

One specimen received from the Mulford Biological Exploration and taken in November, 1921, by W. M. Mann.

33. POLYCYRTUS (POLYCYRTUS) CONFUSUS, new species

Polycyrtus copiosus CRESSON, Proc. Acad. Nat. Sci. Phila., 1873, p. 146 (part).

In describing *copiosus* Cresson confused at least three species, of which the present species is one. Paratype 771.8, Acad. Nat. Sci. Phila., and cotype No. 13247, U. S. Nat. Mus., constitute the type series of *confusus*. These two specimens are before me, the former by loan from the Academy of Natural Sciences of Philadelphia through the kindness of Mr. E. T. Cresson, jr. The abdomens of both specimens have been damaged by dermestids, but most of the dorsal surface remains.

This species differs in many respects from *copiosus*, but most strikingly in the abrupt, prominent termination of the occipital carina some distance away from the hypostomal carina, in the short straight apophyses, and in the short malar space.

Female.—Length about 10 mm.

Vertex in front view straight; frons with poorly defined scrobes but with a median elevation defined by deep, narrow furrows converging toward the horn, the latter stout conical; eyes weakly convergent below, comprising much less than two-thirds total width of head; face polished impunctate, longitudinally impressed each

side of middle; malar space hardly as long as basal width of mandible, constricted, mouth hardly as broad as narrowest width of face; occipital carina in side view strongly convergent above with posterior margin of eye, prominent below and separated from hypostomal carina by a rather deep furrow, hypostomal carina low; temples from above weakly oblique, flat, about a third as long as short diameter of eye; diameter of ocellus nearly as long as ocellular line and nearly twice postocellar line; first joint of flagellum about seven times as long as thick. Thorax polished, almost without sculpture; anterior lateral carina of pronotum not especially high, epomia short but distinct; prescutum convex, rather low anteriorly, lateral lobes slightly flattened; scutellum rather low, prepectal carina obsolete from shortly above notauli; mesopleural furrow foveolate; propodeum not impressed in basal middle, basal carina nearly straight, spiracle broadly oval, apophyses of moderate length, straight, about midway between carina and apex; hind femur distinctly less than twice as thick in middle as at apex, inner calcarium half as long as basitarsus; areolet small, short, recurrent not far before apex; nervulus interstitial (type) or slightly ante-furcal (paratype); postnervulus broken above middle, nervellus broken not far below middle. Abdomen rather stout, second tergite three times as long as broad at base, distinctly shorter than first; tergites beyond second clothed with conspicuous blackish hairs.

Head black, face, clypeus, mouth parts, apex of frontal horn, and orbits (broadly on front, narrowly behind eyes) white; lower cheeks black; annulus embracing flagellar joints 5-11 and apex of 4; propleura whitish; pronotum black with broad anterior-lateral and humeral margins whitish; mesoscutum immaculate black; scutellum and carinae and postscutellum whitish, lateral areas black, apophyses whitish; thorax otherwise and propodeum testaceous; legs testaceous, coxae stramineous, hind tibia and tarsus pale, front and middle tarsi fuscous; wings pale yellowish hyaline, stigma pale, veins black; abdomen largely whitish, petiole pale testaceous, tergite 2 broadly and 3 and 4 narrowly piceous at base.

Type-locality.—Orizaba, Mexico.

Type.—Cat. No. 13247, U.S.N.M.

Paratype.—No. 771.8, Acad. Nat. Sci. Phila.

Two specimens from the type series of *Polycyrtus copiosus* Cresson.

34. POLYCYRTUS COPIOSUS Cresson

Polycyrtus copiosus CRESSON, Proc. Acad. Nat. Sci. Phila., 1873, p. 146, female, male (part).

Finding that a cotype of this species deposited in the United States National Museum disagreed in some respects with the original description I asked Miss Grace Sandhouse on a visit to the Academy

of Natural Sciences of Philadelphia to examine the type series. Miss Sandhouse reported that the lectotype and paratypes 2-7 and 11-12 are one species and agree with the description, while paratypes 8-10 disagree with the description.

Through the kindness of Mr. E. T. Cresson, jr., I have borrowed the three discordant paratypes and find that not only are they not *copiosus* but that only No. 8, a female, is the same as the National Museum specimen, while Nos. 9 and 10, both males, represent a third species, which belongs to the subgenus *Cryptanuridimorpha*. The two females I have described above as *Polycyrtus (Polycyrtus) confusus*. Because of the lack of the female I do not describe the third species.

P. copiosus differs from the foregoing description of *confusus* as follows:

Female.—Vertex in front view slightly concave; frons evenly concave, without median elevation or grooves, but with a small tubercle at base of horn; eyes more strongly convergent below; malar space distinctly longer than basal width of mandible, strongly constricted, mouth distinctly narrower than narrowest width of face; occipital carina weakly convergent above with posterior margin of eye, weakly prominent below and separated from hypostomal carina by a shallow furrow; diameter of lateral ocellus barely two-thirds as long as ocell-ocular line and not nearly twice postocellar line; first joint of flagellum nearly ten times as long as thick. Scutellum high; prepectal carina complete; metapleurum obliquely rugose; propodeal spiracles narrowly oval, apophyses very long, slender and curved, much nearer to carina than to apex; inner hind calcarium less than half as long as basitarsus; areolet of normal size and form with recurrent strongly antefurcal.

Face white except medially and in clypeal groove, where it is brown; posterior orbits with a large, elongate white spot; scutellum discally black.

Male.—Face entirely white; annulus beginning on eighth flagellar joint; all tergites beyond first blackish at base. Otherwise much like female.

The above comparison with *confusus* is based on one specimen of each sex from Mexico in the United States National Museum, the female a metatype.

35. POLYCYRTUS (POLYCYRTUS) COLLICULATUS, new species

Distinct from all other species known to me in the arrangement of color on the thorax and the form of the propodeum.

Female.—Length 14 mm.

Vertex and frons concave, horn large, conical and without either tubercle or ridges above its base; eyes slightly convergent below, com-

prising distinctly less than two-thirds total width of head; face shallowly impressed each side of middle; clypeus in profile only moderately prominent; malar space slightly longer than basal width of mandible; occipital carina parallel with posterior margin of eye, prominent below and separated by a rather deep narrow notch from hypostomal carina, latter moderately high; temples oblique, flat, somewhat less than half as broad as short diameter of eye; diameter of lateral ocellus three-fourths ocell-ocular line and more than twice postocellar line; flagellum slender, basal joint about eight times as long as thick at apex. Thorax polished, practically without sculpture; pronotum strongly tumid on dorsal margin, lateral anterior margin with a high carina, epomia absent; mesoscutal lobes high, the lateral lobes slightly flattened; scutellum moderately high, compressed; mesopleural furrow distinctly, prepectal furrow not, foveolate, subalar tubercle low, smooth, not carinate; metapleurum very faintly roughened along middle; propodeum polished with a few obscure arcuate carinae on apical slope, basal middle deeply impressed, with a low rounded elevation on each side, spiracles rather small, narrowly oval, basal carina straight medially, apophyses rather long, conical, curved, placed distinctly closer to carina than to apex; hind femur very slender, only slightly thickened in middle; inner calcarium barely more than a third as long as basitarsus; areolet of normal size and form with recurrent interstitial, nervulus antefurcal, postnervulus broken slightly below middle, nervellus broken at lower third. Abdomen slender, rather strongly compressed at apex, inconspicuously hairy; postpetiole hardly twice as broad as petiole; second tergite about four times as long as broad at base and very nearly as long as first; sheath more than twice as long as first tergite and somewhat longer than hind tibia.

Head black and white, face, clypeus except apex, orbits except an interruption behind eyes above, mandibles, palpi, and annulus beginning at base of sixth flagellar joint (only eight joints present) white; thorax black, the following yellowish white: Upper and lower anterior margins of pronotum, propleura at apex, two narrow lines on pronotum, scutellar carinae and apices of scutellum and post-scutellum, mesopleurum largely (the anterior and posterior margins and streaks in the impressions which divide the yellow nearly into three separate spots are black), an elongate spot at side of sternum, upper and lower divisions of metapleurum (furrow black), tops of the basal elevations on propodeum, apophyses and a stripe extending from each apophysis to posterior margin and a narrow, oblique lateral line from base of apophysis; mesosternum and metasternum ferruginous; coxae ferruginous, the anterior pair darker with a white stripe anteriorly, middle coxa faintly whitish above; front trochanter

and femur white anteriorly, piceous behind, the femur almost black, tibia whitish; middle leg like front leg except that trochanter and femur are red in front, hind femur reddish piceous, darker behind, tibia and tarsus whitish; wings pale yellowish hyaline, venation blackish; abdomen black, lateral margins of all except last tergite, a median ventral stripe on petiole, and entire venter white, gastrocoeli pale red.

Type-locality.—Serra dos Orgãos, Province of Rio Janeiro, Brazil, 800–1,000 meters.

Type.—In Paris Museum.

One specimen taken by E. R. Wagner in 1902.

36. POLYCYRTUS (POLYCYRTUS) MACER Cresson

Polycyrtus macer CRESSON, Proc. Acad. Nat. Sci. Phila., 1873, p. 144, female, male.

Known to me only in the male, a cotype of that sex from Mexico being in the United States National Museum. This specimen is the basis of the following description.

Male.—Vertex in front view weakly concave; frons with scrobes shallow, horn short, stout conical; eyes nearly parallel within; face polished, finely punctuate above, longitudinally impressed on each side of middle; malar space hardly as long as basal width of mandible, constricted, mouth barely as broad as narrowest width of face; temples in side view rather narrow, occipital carina nearly parallel with posterior margin of eye, low throughout, recurving below to meet the hypostomal carina at about the middle, latter low; temples from above flat, weakly oblique, about a third as long as short diameter of eye; diameter of ocellus three-fourths as long as ocellular line and about a half longer than postocellar line. Thorax polished, without sculpture; pronotum with anterior lateral carina low, epomia distinct but short; prescutum low, lateral lobes flattened above; scutellum moderately high; mesopleurum with the furrows weakly foveolate, subalar tubercle not carinate; propodeum not impressed medially, carina nearly straight, spiracle elongate, apophyses low, carinate, the carinae continuing down to posterior lateral corners of propodeum; hind femur nearly twice as thick in middle as at apex, inner calcarium two-fifths as long as basitarsus; areolet rather small, narrow, recurrent and nervulus nearly interstitial, postnervulus broken at middle, nervellus at lower fourth. Abdomen slender, second tergite fully five times as long as broad at base.

Head black and white, face except short median line above, clypeus except apical margin and lateral sutures, mandibles, orbits

(nearly interrupted behind top of eye and in malar space), and annulus beginning on flagellar joint 7 white; thorax black and white or whitish, propleura, anterior lateral and humeral margins of pronotum, scutellum and postscutellum apically and the scutellar carinae, tegulae, mesopleurum except along sutures, sternum, metapleurum except suture and a small spot at apex, and propodeum white, the last with basal and lateral sutures and a narrow median stripe crossed on carina by a narrow line, black; legs testaceous, coxae above whitish, hind trochanters tinged with piceous, tibia yellowish, infusate at extreme base, tarsus whitish, front and middle tarsi fuscous; wings yellowish hyaline, stigma pale, veins brown; abdomen white with piceous black markings as follows: disk of postscutellum, venter of petiole, extreme base of second tergite and a discal spot on same broad posteriorly and bifurcate anteriorly, and other tergites basally and medially.

37. *POLYCYRTUS (POLYCYRTUS) DUPLICATUS*, new species

Apparently very closely allied to *mancus* and possibly synonymous with that species, the type of which I have not seen. It differs from a male cotype of *mancus* in the United States National Museum in the form of the occipital carina in addition to several differences in color. There appears to be some justification for doubt that the above mentioned cotype is conspecific with the female type of *mancus*.

Female.—Length 11 mm.

Vertex in front view nearly flat; frons with scrobes shallow, horn rather stout conical; eyes weakly convergent below, comprising considerably less than two-thirds total width of head; face polished, minutely alutaceous laterally above and distinctly punctate medially above, with a rather deep longitudinal impression on each side of middle; malar space as long as basal width of mandible, constricted, mouth hardly as broad as narrowest width of face; temples in side view rather narrow, occipital carina convergent above with posterior margin of eye, rather prominent below where it recurves and does not reach the hypostomal carina, from which it is separated by a shallow groove; temples from above weakly oblique, flat, hardly a third as long as short diameter of eye; diameter of ocellus two-thirds as long as ocellular line; basal joint of flagellum nearly eight times as long as thick. Thorax polished, mesopleurum and metapleurum sparsely punctate in middle; pronotum with anterior lateral margin subangulate, the carina moderately high, epomia strong, angulating the anterior end of the swollen humeral margin, groove along posterior margin foveolate, the foveolation in middle prolonged into striations extending into the scrobe; prescutum rather high, lateral lobes faintly sub-

sulcate; scutellum not high; prepectal suture foveolate only at its upper end, mesopleural suture strongly foveolate, subalar tubercle not carinate; propodeum more than a half longer than broad, weakly impressed in basal middle, the impression continued behind the carina as a narrow, shallow groove, carina narrowly subangulate in middle, spiracles oval, apophyses rather long and slender, much nearer to carina than to apex; hind femur little more than a half thicker in middle than at apex, inner calcarium two-fifths as long as basitarsus, areolet rather broad, recurrent and nervulus antefurcal, postnervulus broken above middle, nervellus above lower third. Abdomen minutely alutaceous beyond second tergite, stout, second tergite hardly two and a half times as long as broad at base and distinctly shorter than first; sheath as long as hind tibia.

Black and yellow with the following parts yellow: Face, clypeus except apical margin, broad orbital ring, spot at base of mandible, palpi, annulus on flagellar joints 4-11; propleura, anterior-lateral and humeral margins of pronotum, two short discal lines on mesoscutum, scutellum and its carinae, postscutellum, mesopleurum except just below wings, sternum, metapleurum; propodeum except basal suture and median and lateral longitudinal lines, the former widened on carina, the latter extending backward from spiracles; broad lateral and apical margin of tergites and a transversely quadrilateral sub-basal spot on second tergite; legs stramineous with dorsal sides of femora ferruginous, the hind femur with a yellow median dorsal line, hind tibia yellowish, tarsus whitish; wings hyaline, veins brown, stigma pale.

Type-locality.—Rio Trinidad, Panama.

Type.—Cat. No. 42197, U.S.N.M.

One specimen taken March 20, 1912, by August Busck.

38. POLYCYRTUS (POLYCYRTUS) TRIANGULARIS, new species

Closely related to *duplicatus* Cushman, from the above description of which it differs as follows:

Female.—Length 12 mm.

Malar space not constricted, mouth fully as broad as narrowest width of face; temples in side view broader, occipital carina nearly parallel with posterior margin of eye, of same form but a little more prominent below and separated from hypostomal carina by a deep groove; temples from above weakly concave and fully a third as long as short diameter of eye. Propodeum less than a half longer than broad, apophyses stout; inner hind calcarium barely a third as long as basitarsus.

Mandibles entirely black; median black stripe of propodeum broad, the transverse mark on carina confluent with lateral stripes; subbasal

white spot of second tergite triangular; hind and middle coxae with piceous stains dorsally.

Type-locality.—Rio Trinidad, Panama.

Type.—Cat. No. 42198, U.S.N.M.

One specimen taken March 20, 1912, by August Busck.

39. POLYCYRTUS (POLYCYRTUS) MAJOR Cresson

Related to *duplicatus* but larger (female about 14 mm.) and differing from the above description of *duplicatus* further as follows: Malar space not constricted, mouth as broad as narrowest width of face; occipital carina weakly convergent above with posterior margin of eye, not reaching hypostomal carina but not recurving and very low at lower end. Propodeum not more than a half longer than broad, more or less punctate or punctate-rugose medially behind carina and laterally; apophyses very long, slender, curved; metapleurum strongly punctate-rugose; hind inner calcarium little more than a third as long as basitarsus.

Mandibles yellow except apex and lower margin; annulus on flagellar joints 5–10; scutellum black with only apex and carinae yellow; median stripe of propodeum broader, the transverse mark on carina confluent with lateral stripes; subbasal yellow spot transversely subtriangular and confluent with lateral yellow margin; coxae white with a black stripe dorsally, femora and trochanters piceous above, tibiae more or less infuscate above and toward base; wings yellowish or a little infuscate; stigma largely fuscous.

Male.—Annulus on flagellar joints 8 or 9 to 14 or 15; propodeum less distinctly sculptured, apophyses shorter and hardly curved; subbasal yellow spot of second tergite not angulate posteriorly; legs, especially middle tibiae, darker.

The above notes are based on two females and three males as follows: A metatype female from Mexico; one female from Rio Trinidad, Panama (March 30, 1912, August Busck); one male from San Rafael, Jicoltepec, Mexico; and two males collected in Mexico by Sallé. The last two were received from the Paris Museum, to which one is returned.

40. POLYCYRTUS (POLYCYRTUS) SEMIALBUS (Cresson) (new combination)

Mesostenus semialbus CRESSON, Proc. Ent. Soc. Phila., vol. 4, 1865, p. 30, female, male.

41. POLYCYRTUS (POLYCYRTUS) MONTEZUMA Cameron

Polycyrtus montezuma CAMERON, Biol. Cent. Amer., pt. 42, 1885, p. 234, pl. 10, fig. 6, male.

There is nothing in the descriptions of these two species to distinguish them. Before me are four female specimens from Mexico that

appear to be *montezuma* and one female from Cuba that is almost certainly *semialbus*. Between the Mexican and Cuban specimens there are only very minor differences, which, however, so far as the scanty material goes, appear to be constant, although perhaps not of specific significance.

In the specimens that I am considering *montezuma* the eyes are a little more distinctly convergent below; the cheeks in side view a little broader; and the pale markings more strongly tinted with yellow than in *semialbus*.

As here identified the two species are very much like *major* Cresson, differing principally as follows: Frons with a more or less well-defined tubercle above base of horn; occipital carina in side view parallel with posterior margin of eye, complete to hypostomal carina: temples from above slightly convex; metapleurum and propodeum more strongly sculptured, apophyses stouter and straight.

Propodeum without a transverse black line on carina; median black spot on second tergite not emarginate anteriorly but narrowly truncate or rounded; femora ferruginous, at most a little darker above; tibiae not infusate.

The specimens of *montezuma* in the National Collection are from the C. F. Baker collection and are labeled simply "Mex."

The one specimen of *semialbus* was taken by S. C. Bruner on November 6, 1922, at Santiago de las Vegas, Cuba.

42. POLYCYRTUS (POLYCYRTUS) LITURATUS Brullé

Figure 3

Mesostenus (Polycyrtus) lituratus BRULLÉ, Hist. Nat. Ins. Hym., vol. 4, 1846, p. 208, female, male.

Mesostenus lituratus CRESSON, Proc. Ent. Soc. Phila., vol. 4, 1865, p. 28, female, male.

The specimens that I have identified as this species agree perfectly with Brullé's description except that the dark color of the head and thorax is a dark brown or piceous rather than true black. In this respect it is very distinct from the two following species in which the color pattern is very similar.

Female.—Length 13 mm.

Vertex in front view flat; frons with rather deep scrobes and with a high median ridge above base of horn, latter stout conical; eyes weakly convergent below, comprising much less than two-thirds total width of head; inner and superior orbits minutely alutaceous; face longitudinally impressed each side of middle, medially coarsely punctate; occipital carina in side view slightly convergent above with posterior margin of eye, complete and strong to hypostomal carina, latter very high throughout and leaning toward its fellow (fig. 3);

malar space hardly as long as basal width of mandible, weakly constricted; mouth as broad as narrowest width of face; temples from above nearly flat, oblique, about a third as long as short diameter of eye; diameter of lateral ocellus fully three-fourths as long as ocellular line; basal joint of flagellum little more than six times as long as thick at apex. Thorax polished; anterior lateral margin of pronotum subangulate, carina moderately high, epomia strong, angulating the swollen humeral margin, groove along posterior margin foveolate, the foveolation in middle prolonged into striations extending into the scrobe; prescutum moderately high, lateral lobes flattened above; scutellum not elevated; mesopleurum and sternum with scattered punctures, prepectal carina incomplete above, the suture not foveolate; metapleurum very coarsely diagonally rugose, the upper division sparsely punctate; propodeum rugose behind carina, smooth with a few large punctures before, with a more or less nearly complete narrow median longitudinal furrow, carina nearly straight, spiracles large oval, apophyses long, stout, apically compressed, closer to carina than to apex, hind femur one and a half times as thick in middle as at apex, inner calcarium a little more than a third as long as basitarsus; areolet short and broad, recurrent and nervulus antefurcal, postnervulus broken at middle, nervellus above lower third. Abdomen very minutely alutaceous, stout, second tergite not or barely twice as long as broad at base, much shorter than first; sheath very nearly as long as hind tibia.

Head and thorax dark brownish piceous with the following markings whitish: Face, clypeus, very broad complete orbital ring, apex of frontal horn, bases of palpi, annulus on flagellar joints 5-10; propleura, broad anterior lateral and humeral margins of pronotum, nearly the entire length of inner margin of lateral lobes of mesoscutum, mesopleurum, and sternum, except a streak along posterior margin continuing above into the impression below subalar tubercle, and reddish stains anteriorly on prepectus and in sternauli; apex of scutellum and the carinae, these two markings usually confluent; postscutellum; metapleurum except along suture dividing upper and lower divisions and a spot near apex of lower division; propodeum white with basal suture, median and two lateral stripes, and a broad transverse band just behind carina and broadly confluent with lateral stripes, piceous; this leaves two rounded white spots basad of carina and confluent with the white of the lower division of the metapleurum and two larger elongate marks on the apical slope embracing the apophyses; legs ferruginous, all tarsi fuscous at least apically, coxae whitish above, hind coxa with a piceous streak in middle; wings yellowish hyaline, veins brown, stigma paler. Abdomen black with following whitish markings; Apex and

sides of first segment (black above and below); narrow lateral and broad apical margins of other tergites, and two large subreniform subbasal spots on second tergite.

Male.—Essentially like female. Annulus on flagellar joints 8 or 9 to 13 or 14; temples convex; malar space distinctly shorter than basal width of mandible; prescutum usually more or less white laterally; propodeum less strongly sculptured; abdomen more slender.

The above description is based on three of each sex, all from Cuba. Four of these, received from the Paris Museum, were collected at Havana in 1908 by P. Serre. From this series two males are retained for the National Collection and a pair returned to the Paris Museum. The other two females are labelled "Cuba, M. S. Roig," and are numbered 284 and 292.

43. POLYCYRTUS (POLYCYRTUS) COLLINUS Cameron

Polycyrtus collinus CAMERON, Biol. Cent. Amer., Hym., vol. 1, p. 231, pl. 10, fig. 2, female.

Two specimens that I have determined as this species are before me, a female taken at LaCeiba, Honduras, October 18, 1916, by F. J. Dyer, and a male taken at Gatun, Panama Canal Zone, August 20, 1923, by R. C. Shannon.

Female.—Differs from above description of *lituratus* as follows: Eyes very nearly parallel within; hypostomal carina very low behind occipital carina and erect; temples from above slightly convex; ocelli a little smaller; metapleurum more finely rugose; propodeum only obsoletely rugose apically, sparsely punctate otherwise, apophyses rather short; abdomen a little more slender.

Head and thorax with essentially the same color pattern as *lituratus* but black instead of piceous; frontal horn entirely black; orbital ring narrowly interrupted behind top of eye; discal marks on mesoscutum short; transverse black band of propodeum abruptly narrowed above apophyses and narrowly confluent with lateral stripes; legs white with a black dorsal streak from base of coxa to apex of tibia and in front and middle legs to apex of basitarsus, other joints of front and middle tarsi black, hind tarsus white; black of dorsum of first tergite reduced to a narrow, somewhat anchor-shaped mark with the tips of its flukes on the spiracles; black of second tergite nearly divided into two by narrow extensions of white from the sides

Male.—Differs from female in much the same way as does the male of *lituratus* from its female. The propodeum is practically unsculptured and the sculpture of the metapleurum is reduced to coarse punctation. The hind tibia is dark above only at base.

44. POLYCYRTUS (POLYCYRTUS) NEGLECTUS Cushman

Polycyrtus neglectus CUSHMAN, Proc. U. S. Nat. Mus., vol. 67, art. 23, 1926, p. 5.

Much smaller than either *lituratus* or *collinus* but very similar in structure and color, especially to the latter. The pleura are distinctly reddish and lack the black markings along the posterior margin and in sternauli and prepectus; the legs are ferruginous without black markings; the orbital white ring is sometimes complete and sometimes interrupted; the arrangement of color on dorsum of thorax, propodeum, and abdomen is as in *collinus*; the metapleurum and propodeum vary from distinctly rugose to almost without sculpture.

In addition to the large type series I have examined five more females and six more males from Connecticut, Pennsylvania, and the environs of Washington, D. C.

45. POLYCYRTUS (POLYCYRTUS) RUFIPLEURIS Szepligetii

Figures 7, 8

Polycyrtus rufipleuris SZEPLIGETI, Ann. Mus. Nat. Hung., vol. 14, 1916, p. 272, female.

As I have identified this species it differs from all others known to me in its convex but not prominent clypeus (fig. 7); the entire lack of a carina along the anterior lateral margin of pronotum; low, broad, uncompressed scutellum; rounded and noncarinate tuberculiform apophyses (at least in male); and short, thick, strongly decurved first abdominal segment with spiracles only about three-fifths of the distance from base to apex (fig. 8). The species is known to me only from a single male specimen in the Paris Museum and taken at an altitude of 1,000 meters in the Serra des Orgaős, Province of Rio Janeiro, Brazil, by E. R. Wagner.

Male.—Temples from above strongly oblique, slightly convex, nearly half as long as short diameter of eye; frons with shallow scrobes, horn short, stout conical; vertex in front view slightly convex; eyes weakly convergent below, comprising much less than two-thirds total width of head; face minutely punctate and very weakly impressed on each side of middle; clypeus very sparsely punctate, convex, not elevated, rounded at apex; malar space much shorter than basal width of mandible, cheeks in front view convex, mouth broader than narrowest width of face; temples in side view broad, occipital carina parallel with posterior margin of eye, subprominent below, recurved and joining hypostomal carina behind middle, latter low. Thorax polished; pronotum without either anterior lateral carinae or epomia and with its anterior lateral

margin entire; prescutum moderately high, lateral lobes slightly flattened; scutellum low, convex, broad, not at all compressed; mesopleurum with subalar tubercle noncarinate, prepectal carina incomplete above, the suture not foveolate, sternauli weak anteriorly, wanting posteriorly; metapleurum obscurely punctate in middle, very strongly convex; propodeum strongly convex, carina straight, spiracle oblong, apophyses low tuberculiform, much closer to apex than to carina; hind femur twice as thick in middle as at apex, inner calcarium barely a third as long as basitarsus; areolet of normal form and size, recurrent weakly antefurcal, nervulus strongly antefurcal, postnervulus broken distinctly below middle, nervellus at lower third. Abdomen polished; first segment short, stout, strongly decurved, spiracles at apical two-fifths; second tergite hardly three times as long as broad at base.

Head black with the following white: face, clypeus, mandibles, broad orbital line complete except for narrow interruption in malar space, maxillary palpi and annulus beginning on sixth flagellar joint; maxillary palpi fuscous; thorax black with mesopleurum largely, sternum, metapleurum, and propodeum ferruginous and with the following white markings: lateral margin of propleura, narrow anterior lateral and broad humeral margins of pronotum, two long discal lines on mesoscutum, scutellum and its carinae entirely and the lateral areas partly, postscutellum, subalar tubercle, a large spot in upper posterior portion of mesopleurum and a smaller one on anterior margin and the apophyses; legs ferruginous, tibiae and tarsi yellow; wings hyaline, faintly yellowish, venation black; abdomen ferruginous.

46. POLYCYRTUS (POLYCYRTUS) INFRACTUS, new species

Unique among the species known to me in its unbroken nervellus, in the single median white spot on mesoscutum, and in the form of the occipital carina.

Female.—Length 7 mm.

Temples from above oblique, convex, a little less than a third as long as short margin of eye, frons with scrobes obsolete, horn short stout conical; eyes weakly convergent below, comprising distinctly less than two-thirds total width of head; face narrowly impressed each side of middle; clypeus rather weakly prominent; malar space as long as basal width of mandible, slightly constricted, mouth hardly as broad as narrowest width of face; occipital carina in side view strongly convergent above with posterior margin of eye, very high and thin below, joining the almost equally high hypostomal carina, the two carinae and the somewhat hollowed cheek forming a deep cavity. Thorax polished; pronotum with anterior

lateral carina moderately high, epomia absent, humeral margins roundly prominent anteriorly; prescutum low, lateral lobes flattened, notauli meeting far before scutellum; scutellum convex, broad, not compressed; subalar tubercle obsolete; mesopleural furrows foveolate; metapleurum practically without sculpture; propodeum polished, more or less longitudinally striate in apical middle, carina straight, spiracles small, oval, pleural carina distinct, apophyses small, slender, a little closer to carina than to apex; hind femur twice as thick in middle as at apex, inner calcarium two-fifths as long as basitarsus; areolet very small, nearly as broad as long with recurrent not far behind middle, nervulus interstitial, postnervulus broken at middle, nervellus curved, reclivous, unbroken, discoidella entirely wanting. Abdomen polished; second tergite three times as long as broad at base, shorter than first; sheath much shorter than hind tibia.

Head and thorax black and white, abdomen and legs ferruginous; white as follows: Face, clypeus, mandibles, palpi, broad entire orbital ring, scape below, frontal horn, annulus embracing flagellar joints 6-10 and portions of 5 and 11; propleura, broad anterior lateral and humeral margins of pronotum, the two confluent, mesopleurum except around margins, sternum (tinged with reddish); round median spot on mesoscutum, scutellum and its carinae, postscutellum, both upper and lower divisions of metapleurum; and propodeum (black basad of carina, along pleural carinae, and a narrow median stripe as far back as apophyses); front coxae whitish; wing hyaline, veins brown, stigma pale.

Type-locality.—Alhajuela, Panama.

Type.—Cat. No. 42199, U.S.N.M.

One specimen taken April 5, 1911, by August Busck.

47. POLYCYRTUS (POLYCYRTUS) BULBOSUS, new species

Figure 6

Very distinct in the form of the frontal horn and the structure of the propodeum.

Female.—Length 9 mm.

Vertex in front view slightly convex; frons with shallow scrobes, horn very large, bulbous, with a very deep pit at its base above (fig. 6); eyes weakly convergent below, comprising much less than two-thirds total width of head; face minutely punctate, weakly impressed on each side of middle; clypeus rather prominently elevated; malar space as long as basal width of mandible, in front view slightly convex, mouth as broad as narrowest width of face; occipital carina in side view convergent above with posterior margin of eye, fading

out below and not reaching the rather low hypostomal carina; temples from above oblique, weakly convex, about a third as long as short diameter of eye. Thorax polished; anterior lateral margin of pronotum with a rounded elevation over the top of which runs the moderately strong carina, epomia wanting; mesoscutum (badly broken by pin) apparently with prescutum low and lateral lobes flattened; scutellum not elevated and hardly compressed; mesopleurum with weak scattered punctures, subalar tubercle not carinate, prepectal carina complete, the furrow foveolate above; lower division of metapleurum coarsely rugose punctate, upper division coarsely and sparsely punctate; propodeum smooth before carina, coarsely rugose behind, medially impressed basally, the impression bounded laterally by carinae, basal carina straight medially, spiracles nearly circular, pleural carina distinct, apophyses rounded tuberculiform, a little closer to carina than to apex; hind femur twice as thick in middle as at apex, inner calcarium two-fifths as long as basitarsus; areolet small, broad, recurrent not far behind middle, nervulus antefurcal, postnervulus and nervellus broken about at middle. Abdomen polished; first segment stout with spiracles at apical two-fifths, second tergite three times as long as broad at base and as long as first; sheath much shorter than hind tibia.

Head black and white with the following white: Face, clypeus, mouth parts, broad, complete orbits, frontal horn, scape at apex below, and annulus on flagellar joints 5-11; pronotum and mesoscutum and lateral areas of scutellum black, anterior and humeral margins of pronotum, scutellum and its carinae, and tegulae white; thorax otherwise ferruginous with subalar tubercle, a poorly defined spot before middle coxa, and the apophyses whitish; legs ferruginous, coxae whitish above, front and middle tarsi fuscous, hind tarsi yellow; wings yellow hyaline, veins brown, stigma pale; abdomen ferruginous.

Type-locality.—Mexico.

Type.—Cat. No. 42200, U.S.N.M.

One specimen from the C. F. Baker collection.

48. POLYCYRTUS (POLYCYRTUS) CARINISPINIS, new species

Figure 5

Unique in the form of the propodeum, especially of the apophyses.

Female.—Length 10 mm.

Vertex in front view slightly concave; frons with scrobes moderately deep, horn rather slender conical with a tubercle above its base; eyes weakly convergent below, comprising nearly two-thirds total width of head; face polished, longitudinally impressed each side of

middle; clypeus hardly prominent; malar space hardly as long as basal width of mandible, constricted, the mouth hardly as broad as narrowest width of face; occipital carina convergent above with posterior margin of eye, very prominent below, its lower end separated from hypostomal carina by a very deep, broad groove; temples from above very weakly oblique, flat, about a third as long as short diameter of eye. Thorax polished, entirely without sculpture; anterior lateral carina of pronotum low, epomia wanting; prescutum rather high, lateral lobes impressed, with a low tubercle above apex of tegula; scutellum high, compressed; subalar tubercle low, not carinate; propodeum (fig. 5) polished, medially longitudinally deeply impressed, carina straight, spiracles broadly oval, apophyses in the form of high transverse carinae, midway between carina and apex; hind femur less than twice as thick in middle as at base, inner calcarium hardly two-fifths as long as basitarsus; areolet small, elongate, recurrent antefurcal, nervulus interstitial, postnervulus broken above middle, nervellus at about lower third. Abdomen slender; second tergite nearly four times as long as broad at base, shorter than first; sheath as long as hind tibia.

Head black and white, the following white, face, clypeus, mouth parts except labial palpi, broad complete orbits and annulus on flagellar joints 4-12; thorax black and white anteriorly and dorsally, pleura, sternum, and propodeum stramineous; the following white, propleura, anterior lateral and humeral margins of pronotum, two discal lines and lateral tubercles on mesoscutum, tegulae, scutellum and its carinae, postscutellum, subalar tubercle; propodeum stained with piceous from base to apophyses, the color darkest at base; legs pale testaceous to stramineous, front coxae largely white, hind tibia yellow, tarsus white; abdomen white with tergites beyond second black at base, first pale piceous above, second with a black band beyond middle, basad of which it is medially pale grayish brown.

Type-locality.—La Ceiba, Honduras.

Type.—Cat. No. 42201, U.S.N.M.

One specimen taken by F. J. Dyer on October 24, 1916.

49. *POLYCYRTUS (POLYCYRTUS) BICARINATUS*, new species

This and the four following species form a group characterized by having the apical carina apparently complete though with a sharp angular break toward the front medially, this break sometimes not entirely closed.

Female.—Length 9 mm.

Vertex in front view nearly flat; frons with shallow but rather well-defined scrobes, horn stout conical with two small pits above at its base and a median elongate tubercle on frons above; eyes con-

vergent below, comprising nearly two-thirds total width of head; face distinctly, sparsely punctate, rather deeply longitudinally impressed on each side of middle; clypeus in profile not prominent; malar space hardly as long as basal width of mandible, constricted, mouth as broad as narrowest width of face; occipital carina in side view weakly convergent above with posterior margin of eye, very prominent below and separated by a deep groove from hypostomal carina; temples in dorsal view concave, a little more than a third as long as short diameter of eye. Pronotum polished, the posterior groove crenulate, the crenulations in middle extending forward into scrobe as striations, anterior lateral carina prominent, epomia short, humeral margin not prominent anteriorly; prescutum rather high, lateral lobes weakly impressed, the groove around the margin interrupted opposite tegula by a low tubercle; scutellum rather high and weakly compressed; mesopleurum finely sparsely punctate below and anteriorly, prepectal carina complete, obsoletely foveolate; subalar tubercle reduced to a carina; lower division of metapleurum obliquely rugose, upper division sparsely punctate; propodeum with scattered punctures, basal carina straight medially, apical carina forming an acute angle medially from which a single carina extends forward to basal carina, apophyses reduced to high angles in the carina, midway between basal carina and apex; pleural carina distinct; hind femur hardly twice as thick in middle as at apex, inner calcarium fully two-fifths as long as basitarsus; areolet small, elongate, recurrent and nervulus antefurcal, postnervulus broken at middle, nervellus at lower fourth. Abdomen polished, second tergite nearly four times as long as broad at base, but distinctly shorter than first; sheath a little longer than hind tibia.

Ferruginous with head black, palpi and legs ferruginous, hind tarsi yellow, wings hyaline, veins brown, stigma pale.

Type-locality.—Panama, Panama.

Type.—Cat. No. 42202, U.S.N.M.

One specimen without antennae taken April 5, 1923, by R. C. Shannon.

50. POLYCYRTUS (POLYCYRTUS) UNIVITTATUS Cresson

Mesostenus (Polycyrtus) univittatus CRESSON, Proc. Acad. Nat. Sci. Philadelphia, 1873, p. 148, female, male.

A cotype of each sex from Mexico in the United States National Museum are the basis of the following description.

Female.—Differs structurally from above description of *bicarinatus* as follows: Frontal horn small without either distinct pits or tubercle above at base; eyes comprising much less than two-thirds total width of head; malar space as long as basal width of

mandible, constricted, mouth narrower than narrowest width of face, temples in dorsal view faintly convex. Humeral margins of pronotum roundly prominent anteriorly; prepectal furrow foveolate; subalar tubercle low, noncarinate; lower division of metapleurum coarsely, densely rugose punctate, upper division nearly smooth; propodeum polished before apical carina, arcuately rugose behind, basal carina slightly bowed medially, apical carina not quite closed medially but extending forward from each side to basal carina and setting off a constricted median area; areolet, small, rather short and broad with recurrent not far from middle. Second tergite hardly three times as long as broad at base; sheath barely longer than hind tibia.

Head black and white, face, clypeus, mouth parts, broad complete orbital ring, apex of horn, and annulus on flagellar joints 5-10 white; thorax tricolored; propleura black; pronotum black with broad anterior lateral and humeral margins white; mesoscutum black with only the tubercles above the tegulae white; scutellum and carina and postscutellum white, lateral areas black; mesopleurum and sternum and metapleurum pale ferruginous or testaceous; prepectus, area around subalar tubercle, and upper part of posterior margin of mesopleurum black, the tubercle white, upper portion of red color of mesopleurum and upper division of metapleurum more yellowish; propodeum testaceous with basal suture and a median longitudinal stripe black, the latter broader basad of basal carina and spreading out narrowly along carina; legs and abdomen testaceous, front coxae whitish; wings hyaline, veins brown, stigma pale.

Male.—Essentially like female; sculpture of metapleurum and propodeum much weaker and sparser, apical carina not reaching basal carina but fading out about half way; annulus on flagellar joints 8-15.

51. POLYCYRTUS (POLYCYRTUS) PAULULUS Cresson

Mesostenus (Polycyrtus) paululus CRESSON, Proc. Acad. Nat. Sci. Phila., 1873, p. 145, female.

A cotype from Mexico in the United States National Museum with the abdomen partly eaten is the basis of the following description.

Female.—Differs structurally from the foregoing description of *bicarinatus* as follows: Frons with scrobes hardly defined, pits and tubercle at base of horn also obsolete; eyes nearly parallel and comprising much less than two-thirds of total width of head; face polished; clypeus in profile very prominent; malar space as long as basal width of mandible; occipital carina less prominent below, the groove separating it from hypostomal carina shallow; temples in dorsal view flat, nearly half as long as short diameter of eye. Pro-

notum tumid along anterior lateral margin but carina obsolete, humeral margin tuberculately prominent anteriorly; prescutum low, lateral lobes not impressed, marginal groove not interrupted by a tubercle; subalar tubercle not carinate; lower division of metapleurum shallowly, rather densely punctate, upper division virtually smooth; propodeum polished except behind, where it is obscurely roughened, apical carina obtusely angled medially with only a short carina extending forward from the angle, apophyses higher than broad at base; hind femur only about one-half thicker in middle than at apex; areolet short and broad, recurrent near apex, nervulus interstitial, postnervulus broken at about the middle, nervellus not far below middle. Second tergite hardly three times as long as broad at base.

Head black and white; face, broad complete orbital ring, clypeus, mouth parts, and annulus beginning on fifth joint of flagellum white; thorax tricolored; propleura white, pronotum black with broad anterior-lateral and humeral margins white; mesoscutum black with two discal lines white; scutellum and postscutellum white, their lateral areas black; mesopleurum and sternum and metapleurum pale testaceous, subalar tubercle white nearly surrounded by black; propodeum yellowish testaceous with basal area and a median and two lateral longitudinal stripes black; legs testaceous with upper surfaces of coxae yellowish, the hind coxa with a narrow piceous line; wings hyaline, veins brown, stigma pale; abdomen black and white; first segment black above and below, white at sides and apex; second tergite broadly black at base, narrowly black at apex with a broad band of white between, lateral margins white, broadening basally; third tergite colored like second but basal black much shorter (rest of abdomen missing in specimen).

52. POLYCYRTUS (POLYCYRTUS) HUMEROSUS, new species

Very similar structurally to *parvulus* as described above, differing as follows:

Female.—Frons with scrobes, pits, and tubercles more distinct; face distinctly punctate; malar space distinctly shorter than basal width of mandible; occipital carina very nearly reaching hypostomal carina, obsolete at lower end, temples in dorsal view weakly convex. Propodeum (fig. 4) polished before apical carina, behind the carina medially longitudinally rugose, transversely so at sides, apical carina acutely angled medially with single carina from angle to basal carina, apophyses shorter than broad at base.

In color it differs from *parvulus* only as follows: Basal area of propodeum black only along suture, the median stripe broadened on

basal carina, lateral stripes reduced to narrow brownish lines; hind coxae without a dark line; petiole white above; second and third tergites without narrow apical black margins; second white at base and with the black central mark reaching the lateral margins.

Type-locality.—Orizaba, Mexico.

Paratype-locality.—Guatemala.

Type.—Paris Museum.

Paratype.—Cat. No. 42203, U.S.N.M.

Two females, the type labelled further "P. Biart 1462" and the paratype "Angrand 19-55."

53. POLYCYRTUS (POLYCYRTUS) TRICOLOR Brullé

Mesostenus (Polycyrtus) tricolor BRULLÉ, Hist. Nat. Ins. Hym., vol. 4, 1846, p. 209, female.

Mesostenus tricolor CRESSON, Proc. Ent. Soc. Phila., vol. 4, 1865, p. 29, female.

A single female specimen in the United States National Museum appears to belong here. It was taken at Soledad, Cuba, on June 8, 1925, by George Salt. This specimen is the basis for the following notes.

Very similar in general form and structure to the two preceding species, but the frontal horn has two deep pits at its base, the occipital carina is distinctly complete to hypostomal carina, the anterior-lateral margin of pronotum is sharply angulate below the middle, the mesopleurum is obliquely striate in the middle and the metapleurum coarsely, densely punctate, and the propodeum is very much like that of *humerosus* with the apophyses even lower.

In color it is very distinct, differing from both of the other species in having the scape below and apex of horn white; thorax entirely black and white, discal white lines of mesoscutum extending nearly the entire length of inner margins of lateral lobes, pleura entirely white except along sutures; propodeum black and white with black pattern much as in *paululus* with entire basal area black and three longitudinal black stripes, the lateral ones, however, much broader than in *paululus*; abdominal color pattern much as in *humerosus*; legs ferruginous with apices of tarsi black.

POLYCYRTUS MANCUS Cresson

Polycyrtus mancus CRESSON, Proc. Acad. Nat. Sci. Phila., 1873, p. 145, female, male.

A male cotype in the United States National Museum differs from the description of the species in having the mandibles black and the petiole yellow dorsally with a black line on each side.

MESOSTENUS SUBTENUIS Cresson

Mesostenus subtenuis CRESSON, Proc. Ent. Soc. Phila., vol. 4, 1865, p. 29, male.

This is probably a *Polycyrtus* and very likely the same as the specimen described by Brullé as the male of his *trilineatus*. The descriptions show no differences. Brullé's male was from Haiti and Cresson's type from Cuba, while the female of Brullé's species was from Guiana and obviously of a different species from the male.

SPECIES ERRONEOUSLY REFERRED TO POLYCYRTUS

Listrognathus albomaculatus (Cresson) was referred to *Polycyrtus* by Viereck (Proc. U. S. Nat. Mus., vol. 42, 1912, p. 644).

Polycyrtus ? curvilineatus Cameron (Proc. Linn. Soc. N. S. Wales, vol. 37, pt. 1, 1912, p. 175). This Australian species is surely not a *Polycyrtus*, the possession of the frontal horn being apparently the only reason for its tentative assignment to the genus. The sculpture, many feature of structure, and the type of color pattern are foreign to *Polycyrtus*.

Genus POLYCYRTUS Spinola

KEY TO SPECIES

This key is essentially that of Szepligeti² expanded to include all the described species of *Polycyrtus*. Because of the nature of most of the descriptions it was necessary to employ largely characters of color. The key is, therefore, far from entirely satisfactory, but will be found helpful in determination of specimens by reduction of the number of descriptions to be consulted.

1. Propodeum without basal carina; frontal horn trihedral.
 - quadrisulcatus Spinola.
 - Propodeum with basal carina; frontal horn usually conical.....2.
2. Abdomen ferruginous or testaceous.....3.
 - Abdomen more or less black, segments often margined with white.....3S.
3. Only the head black.....4.
 - Thorax also more or less black or piceous.....26.
4. Head with at most the clypeus red or pale.....5.
 - Head with at least the face or orbits pale.....1S.
5. Clypeus pale or red.....6.
 - Clypeus black.....12.
 - (*curvispina* Cameron [Costa Rica]. Description says "ore albo," but whether clypeus is included is not clear. Can be run no farther in key on basis of original description.)
6. Clypeus red.....7.
 - Clypeus pale.....8.

²Ann. Mus. Nat. Hung., vol. 14, 1916, p. 268.

7. Propodeum rugose between the apophyses.
tinctipennis Cameron, female, male (Panama).
rugulosus Szepligetii, male (Bolivia).
 (No difference between these two species appears in the descriptions.)
 Propodeum smooth between the apophyses.
minutus Cushman, female (Brazil).
8. Frontal horn white.....*riojanus* Brethes, male (Argentina).
 Frontal horn black.....9.
9. Apophyses very large.....*areolatus* Cushman, female (Panama).
 Apophyses small or moderate in size.....10.
10. Frontal horn large; apophyses in female not especially reduced, in male tuberculiform.....*boliviensis* Cushman, female, male (Bolivia).
 Frontal horn and apophyses much reduced.....11.
11. Stigma black; 15 mm.....*clypealis* Szepligetii, male (Bolivia).
 Stigma yellow; smaller.....*testaceus* Taschenberg, variety.
12. Propodeum without apophyses.
testaceus Taschenberg, female, male (Brazil).
 Propodeum with apophyses.....13.
13. Scutellar carinae white; apophyses short...*nigriceps* Brullé, male (Brazil).
 Scutellar carinae not white.....14.
14. Palpi testaceous.....15.
 Palpi yellow.....17.
15. Apical carina complete, apophyses low cariniform; ovipositor sheath fully as long as hind tibia.....*bicarinatus* Cushman, female (Panama).
 Apical carina absent, apophyses long; ovipositor sheath much shorter than hind tibia.....16.
16. Ovipositor sheath a little longer than first segment of abdomen.
xanthocarpus Szepligetii, female (Bolivia).
 Ovipositor sheath much longer than first segment.
inornatus Cushman, female (Panama).
17. Apophyses long and acute...*lucidator* Erichson, female (British Guiana).
 Apophyses of moderate size, conical, a little longer than wide at base.
melanocephalus Cameron, female (British Guiana).
18. Orbits black.....19.
 Inner orbits white.....20.
19. Areolet more quadrate.....*testaceus* Taschenberg var. 3 (Venezuela).
 Areolet elongate; ovipositor long.
caudatus Szepligetii, female (Panama; Bolivia).
20. Frontal horn black.....21.
 Frontal horn white at least at apex.....22.
21. Scutellum conical.....*similis* Szepligetii, male (Venezuela).
 Scutellum convex; occipital carina prominent below; malar space much shorter than basal width of mandible.
ornatifrons Cushman, female (Panama).
22. Face black.....*albispina* Szepligetii, female (Bolivia).
 Face white, at least at sides.....23.
 (*pallidus* Cresson, male [Mexico]. Will run no farther in key on basis of original description.)
23. Propodeum longitudinally impressed; second recurrent vein not interstitial.
szepligetii, new name, female (Bolivia).
 (= *canaliculatus* Szepligetii [not Cameron]).
 Propodeum not impressed.....24.

24. Posterior orbits white-----*alboannulatus* Szepligeti, male (Paraguay).
Posterior orbits black, at most with a small white spot-----25.
25. Second recurrent interstitial-----*surinamensis* Szepligeti, female (Surinam).
Second recurrent antefurcal-----*buscki* Cushman, female, male (Panama).
26. Propodeum white marked, at least the apophyses white-----27.
Propodeum not white marked-----32.
27. Mesopleurum red at least below, usually black and white above-----28.
Mesopleurum black and yellow or white-----31.
28. Mesopleurum not at all black; propodeum coarsely rugose.
bulbosus Cushman, female (Mexico).
Mesopleurum more or less black above-----29.
29. Propodeum black-----*giacomellii* Schrottky, female (Argentina).
Propodeum red-----30.
30. Propodeum with a median black stripe.
univittatus Cresson, female, male (Mexico) (See 37).
Propodeum not black-marked-----*rufipleuris* Szepligeti, female, male (Brazil).
31. Propodeum mostly red-----*semirufus* Szepligeti, female, male (Brazil).
Propodeum black and white-----*infractus* Cushman, female (Panama).
32. Propodeum black-----33.
Propodeum red-----34.
(*albineatus* Cameron, female [British Guiana]. Will run no farther
in key on basis of original description.)
33. Scutellum black, only the carinae white.
emaculatus Szepligeti, female, male (Bolivia).
Scutellum and postscutellum white.
alboannularis Ashmead, female (Lower California).
34. Propodeum longitudinally impressed.
excavatus Szepligeti, female, male (Bolivia).
sulcatilobus Cushman, female (Brazil).
(*sulcatilobus* agrees with the very brief description of *excavatus*).
Propodeum in basal middle with a triangular impression, between the
apophyses flat-----35.
Propodeum not impressed-----37.
35. Scutellar carinae black-----*chiriquensis* Cameron, female (Panama).
Scutellar carinae white-----36.
36. Propodeal carina straight-----*rufiventris* Spinola, female, male (Guiana).
Propodeal carina curved forward medially.
saladonis Cushman, female, male (Argentina).
37. Apophyses cariniform; mesoscutum with a white spot above each tegula.
univittatus Cresson, female, male (Mexico) (See 30).
Apophyses very long; mesoscutum without such white spots.
tubulifera (Viereck), female (Peru).
38. Thorax red-----39.
Thorax not entirely red-----57.
39. Hind tibia black-----40.
Hind tibia red or yellow-----41.
40. Head red-----*nigrotibialis* Szepligeti, female (Bolivia).
Head black and white-----*elegans* (Viereck), male (Peru).
41. Face white at least laterally-----42.
Face black-----46.
(*sartor* (Fabricius). Can be run no farther in key on basis of
original description or that of Spinola. Brullé places it in his
second group of *Mesostenus*, saying that his specimen is not the
same species as that described by Spinola, since his lacked the
frontal horn. This would exclude it from *Polycyrtus*.)

77. Prescutum not channeled medially; propodeal apophyses present.
histris Spinola, female, male (South America).
 Prescutum channeled medially; propodeum without apophyses.
guaruja Bréthes, female (Argentina).
78. Propodeum with three longitudinal black stripes.
leprieuri Spinola, male (Guiana).
 Propodeum largely piceous black.
inquinatus Cushman, female, male (Argentina).
79. Hind coxae red or stramineous.....80.
 Hind coxae white or yellowish and black.....94.
 (*chontalensis* Cameron, male [Panama] and *guatemalensis* Cameron, male, [Guatemala] can be run no farther in key on basis of original descriptions).
80. Propodeum posteriorly punctate or rugose.....81.
 Propodeum polished and impunctate.....84.
81. Apophyses long and curved.....*suturalis* Brullé, female (Brazil).
 Apophyses cariniform.....82.
82. Thorax black and white.....*tricolor* Brullé, female (Cuba).
 Thorax black and stramineous.....83.
83. Second tergite black at base and apex.....*paululus* Cresson, female (Mexico).
 Second tergite white at base and apex.
humerosus Cushman, female (Guatemala; Mexico).
84. Only the first three segments black.....*leucopus* Brullé, female (Brazil).
 All segments more or less black.....85.
85. Orbits not entirely yellow.....86.
 Orbits entirely yellow.....90.
86. Hind femur entirely red.....87.
 Hind femur more or less black at apex.....88.
87. Propodeum black at base, with three longitudinal black lines.
xanthopus Brullé, male (Brazil).
 Propodeum brown at base and with a large brown median spot before the apophyses.....*emarginatus* Brullé, male (South America).
88. Hind femur black only at apex.....*tuberculatus* Brullé, female (Brazil).
 Hind femur black throughout its length at least on inner side and below.....89.
89. Head entirely black.....*proximannulatus* Cushman, female (Bolivia).
 Head white-marked.....*colliculatus* Cushman, female (Brazil).
90. Propodeum mostly yellow.....91.
 Propodeum mostly black.....93.
91. Mesoscutum immaculate black.....*macer* Cresson, female, male (Mexico).
cruciatus Cameron, female (Mexico).
 (Comparison of descriptions shows no differences.)
 Mesoscutum with two short white lines on disk.....92.
92. Propodeum with transverse black bands before and behind basal carina and three longitudinal stripes.
neglectus Cushman, female, male (southeastern United States).
 Propodeum black at base with three black longitudinal stripes.
trilineatus Brullé, male (not female) (Haiti) (See 75).
93. Thorax strongly sculptured.....*fulvipes* Cameron, male (Guatemala).
 Thorax polished.....*amoenus* (Viereck), female (Paraguay).
94. Antennae without annulus.....*nigricornis* Szepliget, female (Colombia).
 Antennae with annulus.....95.
95. Hind tibia entirely yellow.....96.
 Hind tibia more or less black.....107.

96. Propodeum stramineous, more or less stained with brownish above, longitudinally impressed medially, apophyses cariniform.
carinispinis Cushman, female (Honduras).
 Propodeum yellow with black markings.....97
97. Second tergite black throughout above.....98
 Second tergite white medially near base.....101
98. Posterior orbital white mark interrupted above.....99
 Posterior orbital white mark not interrupted above.....100
99. Propodeum with a transverse black band behind basal carina; frontal horn and mandibles black.....*ferox* Cresson, female (Mexico).
 Propodeum without such a black mark; frontal horn apically and mandibles white.....*juncus* Cresson, male (Mexico).
100. Frontal horn black; posterior tarsi white; apophyses flattened.
acerbus Cresson, female (Mexico).
 Frontal horn white; posterior tarsi red; apophyses slender conical.
lituratus Brullé, female, male (Cuba).
101. Propodeum with a transverse black mark on basal carina.....102
 Propodeum without such a black mark.....106
102. Mandibles largely or entirely black.....103
 Mandibles yellow.....105
103. Pleura largely reddish yellow.....104
 Pleura largely black; petiole black above.
fulvofemoratus Cameron, female (Guatemala).
104. Subbasal white spot of second tergite transversely quadrilateral.
duplicatus Cushman, female (Panama).
 Subbasal white spot of second tergite triangular.
triangularis Cushman, female (Panama).
105. Scutellum discally black, yellow at apex.
major Cresson, female, male (Mexico).
 Scutellum entirely yellow.....*mancus* Cresson, female, male (Mexico).
106. Propodeum longitudinally furrowed; black mark of second tergite acute at base.....*canaliculatus* Cameron, male (Guatemala)
 Propodeum not furrowed; black mark of second tergite truncate at base.
semialbus (Cresson), female, male (Cuba).
montezuma Cameron, male (Mexico).
107. Hind tibia entirely black.....*melanoleucus* Brullé, male (Mexico).
 Hind tibia not entirely black.....108
108. Hind tibia black above, pale below.....109.
 Hind tibia black at base or at both base and apex.....110.
109. A stouter species with metapleura coarsely punctate; wings infumate apically.....*collinus* Cameron, female (Guatemala).
 A more slender species with metapleura barely punctate; wings not infumate apically.....*confirmatus* Cameron, female (Guatemala).
110. Hind tibia black at base and apex.
obtusispina Cameron, female (Guatemala).
 Hind tibia black at base only.....111.
111. Propodeum with strong apophyses.
blanditus Cameron, female (Guatemala).
 Propodeum transversely striate, without apophyses.
reliquus Cresson, female (Mexico).
 (= ?*Glodianus*).

INDEX

[In this index accepted genera are in bold face type; synonyms, both generic and specific, in italics; species erroneously placed in the genus in roman type in paranthesis; valid species in roman]

	Page		Page
accuratus.....	57	giacomelli.....	55
acerbus.....	59	gibbulus.....	56
albiniclavus.....	3, 9, 56	guaruja.....	58
albispina.....	54	guatemalensis.....	58
alboannularis.....	55	histrio.....	12, 58
alboannulatus.....	55	humerosus.....	7, 51, 58
albolineatus.....	55	impessus.....	5, 16, 56
(albomaculatus).....	53	inca.....	2, 10, 56
amoenus.....	12, 58	infractus.....	3, 12, 45, 55
areolaris.....	6, 30, 57	inornatus.....	3, 13, 54
areolatus.....	3, 15, 54	inquinatus.....	6, 29, 58
atriceps.....	56	isthmus.....	5, 18, 56
atrinasutus.....	5, 28, 57	juncus.....	59
bicarinatus.....	7, 43, 54	leprieuri.....	58
blanditus.....	59	leucopus.....	58
boliviensis.....	3, 14, 54	leucostomus.....	56
brevigenalis.....	5, 21, 56	<i>Listrogathus</i>	53
bulbosus.....	3, 12, 46, 55	litratus.....	6, 41, 59
buscki.....	3, 11, 55	lucidator.....	54
canaliculatus Cameron.....	59	macer.....	6, 37, 58
<i>canaticulatus</i> Szepligetii.....	54	major.....	6, 40, 59
capitator.....	3, 8, 56	mancus.....	38, 52, 59
carinispinis.....	3, 12, 47, 59	manni.....	6, 32, 57
caudatus.....	54	marginatus.....	56
cephalotor.....	8	medialbus.....	5, 26, 57
chiriquensis.....	55	mediotinctus.....	6, 30, 57
chontalensis.....	58	melanocephalus.....	54
circumfluens.....	6, 32, 57	melanoleucus.....	59
clypealis.....	54	minutus.....	3, 14, 54
cockerellae.....	5, 28, 57	montezuma.....	6, 40, 59
colliculatus.....	6, 35, 58	neglectus.....	6, 44, 58
collinus.....	6, 43, 59	nigriceps.....	54
confirmatus.....	59	nigriclepeatus.....	5, 16, 56
confusus.....	6, 33, 57	nigricornis.....	58
constricticlavus.....	5, 24, 57	<i>nigriventris</i>	8, 56
convergens.....	5, 18, 56	nigroscutellatus.....	57
copiosus.....	6, 34, 57	nigrotibialis.....	7, 55
cruciatu.....	58	nudus.....	56
Cryptanuridimorpha.....	1, 2, 7	obtusispina.....	59
<i>Cryptopterigimorpha</i>	1, 7	ornatifrons.....	3, 12, 54
(curvilineatus).....	53	pallidibalteatus.....	57
curvispina.....	53	pallidus.....	54
curviventris.....	56	paranensis.....	5, 20, 56
duplicatus.....	6, 38, 59	parviclavus.....	5, 19, 56
elegans.....	2, 7, 55	paululus.....	7, 50, 58
emaculatus.....	55	<i>Polycyrtimorpha</i>	1, 12
emarginatus.....	58	<i>Polycyrtus</i>	1, 2, 12, 53
erythrostermus.....	57	prominens.....	5, 17, 56
excavatus.....	55	proximannulatus.....	5, 23, 58
femoratus.....	56	quadrisulcatus.....	53
ferox.....	59	reliquus.....	59
fulvipes.....	58	riojanus.....	54
fulvofemoratus.....	59	rufipeuris.....	3, 12, 44, 55
furvus.....	57	rufiventris.....	55

	Page		Page
rufomaculatus.....	57	testaceus.....	54
rugulosus.....	54	tinctipennis.....	54
saladonis.....	5, 23, 55	triangularis.....	6, 39, 59
sartor.....	55	tricolor.....	7, 52, 58
semialbus.....	6, 40, 59	trilineatus.....	57, 58
semirufus.....	55	trochanteratus.....	57
similis.....	54	tuberculatus.....	58
subtenuis.....	53	tubulifera.....	3, 7, 10, 55
sulcatilobus.....	5, 22, 55	univittatus.....	7, 49, 55
surinamensis.....	55	xanthocarpus.....	54
suturalis.....	58	xanthopus.....	59
szepligetii.....	54	xanthothorax.....	5, 27, 57