

**Article II.—NEW AND NOTEWORTHY BRAZILIAN MUSCOIDEA
COLLECTED BY HERBERT H. SMITH.**

BY CHARLES H. T. TOWNSEND, U. S. NATIONAL MUSEUM.

During the eighties of the past century Mr. Herbert H. Smith made rather an extensive collection of Diptera in Brazil, mainly in the southern part of that country. The American Museum of Natural History has acquired by purchase, through Dr. S. W. Williston, most of this collection, and has placed in the hands of the writer for study the material in the muscoid groups. The present is the first of a series of papers giving results of this study. In addition to the new forms, a record is presented of the more noteworthy described forms secured.

The greater part of the material is labeled simply "Chapada." As there are several large towns of this name in widely removed parts of Brazil, it is important to fix definitely this locality. The Chapada in question, properly written Santa Anna da Chapada, is a small village near Cuyabá, on the headwaters of the Paragua River, in the province of Matto Grosso.

Uramya producta R. D. Two males, no locality, labeled only "611." Eyes only thinly hairy. Abdomen cylindrical. Legs very elongate, especially middle ones; middle tibiæ and metatarsi longest, hind and middle femora about same length. Arista tomentose or clothed with short hairs.

Euloewia ochreicornis new species.

Length of body, 5 to 6 mm.; of wing, 4 to 5 mm. Two males and two females, Chapada, Nov.

Differs from *E. madrensis* T. as follows: Antennæ wholly ochreous. Palpi dark rufous, blackish basally. Third antennal joint nearly or quite twice as long as second in both sexes. Tegulæ deeply smoky-yellow. Parafacials of male not so broad.

Holotype, No. 22575 Am. Mus. N. H., male; allotype, female. Paratypes, No. 20010 U. S. Nat. Mus., male and female.

Atactomima new genus.

Genotype, *Atactomima crescentis* new species.

Differs from *Atacta* as follows: Face extremely flattened; facialia much widened, perfectly flat, quite in the plane of clypeus. Facial plate not over twice as long as epistomal width. Front wider, vertex of female about two-fifths of head-width, the narrowest part of front of male over one-sixth of head-width. Face wider, facio-

frontal area much greater in proportion to ocular area, the parafrontals and parafacials in male forming in front view a heavy crescentic or subarcuate area. Frontal bristles sparsely placed, only six to eight or nine pairs. Female with only two proclinate orbitals. Frontalia not so broad. General form less robust and less elongate. Male claws more slender.

Atactomima crescentis new species.

Length of body, 9.5 to 10 mm.; of wing, 8 to 8.75 mm. Four males and one female, Chapada, one male labeled May.

Differs from *Atacta brasiliensis* Sch. in coloration only as follows: Front, face and cheeks entirely silvery in male; in female there is a light golden tinge to all except the facialia and the black orbital vitta of parafrontals. Antennæ and palpi rufous to fulvous, shading more or less to brownish on third antennal joint and to dark rufous on base of palpi. All the pollinose parts of male silvery; in female the pollen of mesoscutum, humeri, mesopleuræ and anal abdominal segment is pale golden. Tegulæ white, the hind scale usually with ground-glass effect. The frontalia are lighter.

Holotype, No. 22576 Am. Mus. N. H., male; allotype, female. Paratype, No. 20011 U. S. Nat. Mus., male.

Frontocnephalia new genus.

Genotype, *Frontocnephalia angusta* new species.

Allied to *Germariopsis*, differing as follows: Male. Form narrowed. Lower profile of head considerably shorter than frontal profile, the two profiles parallel. Facial profile receding, as long as frontal profile. Facial depression deeply excavated, narrow, about twice as long as broad, the facialia nearly parallel, the epistoma not projecting in profile beyond the facialia. Third antennal joint four times as long as the second. (Arista wanting.) Facialia finely ciliate a little less than half way up. Parafacials rather irregularly bristled, considerably narrowed below. Proboscis below geniculation about as long as antennæ, slender, corneous. First abdominal segment with long median marginal pair of bristles, no discals on anal segment but rather strong marginals. Third vein bristled half way to small crossvein, costal spine developed. Apical cell closed in margin a little nearer to wing-tip.

Frontocnephalia angusta new species.

Length of body, 9 mm.; of wing, 6.5 mm. One male, Santarem.

Head silvery; a brassy tinge on front, less marked on parafacials. First two antennal joints and palpi pale rufous, third joint blackish. Frontalia brownish, with thin coat of pollen. Thorax and scutellum blackish, latter reddish on apex, pollen of mesoscutum tinged with brassy, four subequal black vittæ reaching nearly to scutellum. Abdomen blackish; brassy-silvery pollinose except first segment, median vitta and broad hind margins of second to fourth segments, the dark parts with thin sheen of pollen. Venter brown. Legs blackish. Wings very faintly tinged with smoky. Tegulæ white.

Holotype, No. 22577 Am. Mus. N. H.

Beskiocephala new genus.

Genotype, *Beskiocephala flava* new species.

Has strong suggestion in head-characters of *Beskia*, especially in antennæ; but proboscis, abdomen and wings are totally different. Differs from *Aphria* as follows: Female only. Vertex fully twice as wide as one eye. Ocellar and postocellar bristles delicate, short. Outer verticals strong, inner ones decussate. Head subquadrangular in profile; antennæ inserted on upper fifth or sixth of eye, first joint elongate and erect, second distinctly longer than the first; third joint over three times as long as the second, stout-subcylindrical, the distal half widening blade-like with evenly rounded lower-apical profile, the distal fourth flattened out and thin. Arista about as long as third antennal joint, its first and third joints about equal, its second joint a little longer than the others. Epistoma feebly prominent; vibrissæ weak, short, not decussate; peristomal bristles very sparse, weak. Parafacials wide, with facio-orbital bristle at lower end of eye; a stronger proclinate orbital just above middle level of eye and below base of antennæ, two detached frontals opposite and immediately below the latter orbital; a weaker proclinate orbital above last on parafrontals; and three reclinate orbitals successively stronger posteriorly, the third more or less nearly in line with frontals. Cheeks rather over one-half eye-height. Proboscis elongate, rather stout, corneous, part below geniculation nearly one and one-half times head-height; no palpi. Four strong scutellars, no small apical pair. Abdomen rather inflated, suboval, median pair of macrochætæ separated from rest of marginal row of third segment. Anal segment cut off posteriorly, with same sparse appressed microchætæ as rest of abdomen. Front tarsal joints two to four slightly widened. Third vein bristled to small crossvein, costal spine short, apical cell very narrowly open and ending far before wing tip, third vein bent up at tip, apical crossvein nearly straight after its inward curve at base, cubitus with strong stump; hind crossvein gently sinuate, almost in line with apical crossvein, well approximated to cubitus. Hind scale of tegulæ not so large. Tarsi stouter.

Beskiocephala flava new species.

Length of body, 7.5 mm.; of wing, 6.5 mm. One female, Chapada, Nov.

Head wholly luteous, showing a thin coat of silvery-white pollen in very oblique view especially on face and parafrontals. Frontalia anteriorly, first two antennal joints and base of third fulvous, rest of third joint and arista blackish. Proboscis fulvous, blackish toward apex. Thorax and scutellum fulvous, thinly silvery, mesoscutum with four rather heavy and nearly equal brownish vittæ. Abdomen wholly fulvorufous, with faint indications of silvery pollen. Legs fulvous, the tibiæ of slightly deeper shade than the femora and coxæ, the tarsi blackish. Wings smoky except on broad posterior border, the baso-costal area to small crossvein and end of first vein yellow; tegulæ of about the same light bright yellow.

Holotype, No. 22578 Am. Mus. N. H.

Formicomymia new genus.

Genotype, *Formicomymia ovata* new species.

Allied to *Copecrypta*, from which it differs as follows: Female. All macrochætæ

weak. Only one proclinate orbital, the two reclinate orbitals set farther forward; only five frontals, set more forward and sparsely disposed. No apical short decussate pair of bristles on scutellum, only a small discal pair and two long lateral pairs. Thorax rather narrower than abdomen. Abdomen strongly elongate-eggshaped, inflated, the greatest width being rather behind middle; first incisure strongly arcuate, the second and third markedly so. Apical crossvein rather evenly curved; hind crossvein straight, parallel with main course of apical; the axes of both crossveins nearly perpendicular to fifth vein. Hind crossvein rather close to halfway point between small crossvein and cubitus. Third antennal joint but little widened, nearly twice as long as second.

Formicomomyia ovata new species.

Length of body, 6 mm.; of wing, 4.5 mm. One female, Chapada, Nov.

Head yellowish, parafrontals polished black; frontalia and antennæ fulvous, the third joint of latter darkened apically. Face silvery. Thorax and scutellum shining blackish, thinly silvery, with four subequal brown vittæ. Abdomen polished rufous-brown, showing no pollen except the faintest indication at first incisure and sides of second. Legs concolorous with abdomen, tarsi darker. Wings faintly smoky, showing most on crossveins and along costal border. Tegulæ nearly white.

Holotype, No. 22579 Am. Mus. N. H.

Microgymnomma new genus.

Genotype, *Microgymnomma orbitalis* new species.

Runs to *Gymnomma* in Brauer & Bergenstamm's 1893 table of Pyrrhosidæ, differing as follows: Male. Two strong proclinate orbitals on each side; third antennal joint a little over twice as long as second, but little widened, of even width, evenly rounded at tip; first two arisal joints short; claws short, hardly or barely as long as last tarsal joint; proboscis corneous, moderately stout, but little longer than head-height; cubitus with strong stump extending half way or more to wing-margin; no discal macrochætæ on intermediate abdominal segments. Strong proclinate ocellars present. Front very broad, vertex fully one-third head-width. Abdomen strongly oval, swollen, the smaller end apical. Epistoma but slightly produced. No median macrochætæ on first abdominal segment, short median marginal pair on second, sparse marginal row of longer ones on third, discal and marginal on fourth. Hypopygium small. Two very long lateral scutellar macrochætæ, a shorter one between them. Two very long macrochætæ on each side of mesoscutum behind suture. Middle tibiæ with a very long spine; tarsi rather slender. Wings very broad in proportion to length, rather short; third vein bristled over half way to small cross vein; apical cell strongly concave at end, ending well before wing-tip, its opening attenuate and narrow.

Microgymnomma orbitalis new species.

Length of body, 5 mm.; of wing, 4.75 mm. One male, Chapada, Dec.

Head pale flavous; facial plate silvery, parafacials and parafrontals brassy;

frontalia and antennæ smoky-fulvous, the first two joints of latter light fulvous; cheeks and occiput thinly brassy-silvery. Thorax and scutellum polished black, thinly brassy pollinose, leaving four subequal vittæ before suture; humeri and pleuræ more thickly brassy. Abdomen polished black; narrowly silvery at incisures, faintly brassy, spreading somewhat according to lights especially at sides. Legs brown, tarsi blackish. Wings faintly tinged with smoky throughout. Tegulæ nearly white.

Holotype, No. 22580 Am. Mus. N. H.

Chrysometopiops new genus.

Genotype, *Chrysometopiops smithii* new species.

Allied to *Argyreomyia*, from which it differs as follows: Male. Eyes almost bare. No proclinate orbital in male, but three reclinate orbitals. Normally a fine hairlike pair of ocellars present, sometimes not developed. Frontal development of male almost same, but the frontalia extending nearly to ocellar area in a more or less suturelike form. Epistoma distinctly more extended below vibrissæ. Antennæ inserted distinctly above eye-middle. Four sternopleurals, and four postsuturals. Discal scutellars not so widely separated. No discals on intermediate abdominal segments. Tegulæ not so greatly enlarged. Third vein bristled only at base, usually with only a single bristle. Hind tibiæ pectinate. A pair of pilose spots on venter of third segment.

Female. Differs from the male only in the frontalia being wider, not constricted suturelike, but narrowing posteriorly to a point; in the presence of two proclinate orbitals, the front being only a little wider than in the male; and in lacking the pilose spots of venter of third segment. The claws are short in both sexes.

Chrysometopiops smithii new species.

Length of body, 7 to 8 mm.; of wing, 5.75 to 6 mm. Twenty-seven males and ten females, Chapada, Nov., except one of each sex Abrilongo, Jan.

Golden pollinose, evidently golden-green in life. Head silvery; mesoscutum and scutellum of male with a decided silvery effect in some lights, less evident or wanting in female. Antennæ and frontalia dark brown or blackish. Palpi rufous, lighter apically. Male without thoracic vittæ, female with only the faintest indication of same. First abdominal segment and rather broad hind borders of other segments dark brown or blackish. Venter of first two segments largely silvery, the third segment blackish with narrow front border of golden in male, which spreads more or less posteriorly in female. Pleuræ silvery. Legs concolorous with dark parts of abdomen. Wings lightly infuscate, less so on inner border. Tegulæ tawny-whitish to pale yellowish, with narrow yellow margin. Pile of ventral spots of third abdominal segment of male black, but appearing fulvous in some lights.

Holotype, No. 22581 Am. Mus. N. H., male; allotype, female. Paratypes, No. 20012 U. S. Nat. Mus., male and female.

Named in honor of Mr. Herbert H. Smith.

Chrysosturmia new genus.

Genotype, *Chrysosturmia orbitalis* new species.

Allied to *Chrysometopiops*, from which it differs as follows: Male. Front and face wider, vertex nearly as wide as one eye, the front widening anteriorly; a pair of strong proclinate orbitals in male; strong pair of proclinate ocellars; two reclinate orbitals, the frontalia and parafrontals normal. Facialia strongly ciliate more than half way up. Two to four bristles at base of third vein. Frontalia of perfectly even width, about two-thirds as wide as the middle of one parafrontal. Antennæ slightly longer. Vestiture spots of venter of third segment larger. Chætotaxy of scutellum and abdomen same; the main bristles of thorax same.

Chrysosturmia orbitalis new species.

Length of body, 7.75 mm.; of wing, 6.5 mm. One male, Chapada, Nov.

Face, cheeks and occiput silvery, parafrontals golden; frontalia, palpi and antennæ black or very dark brown, the last with a pollinose sheen. Thorax, scutellum and abdomen golden, the pleuræ more silvery; two median well-defined narrow black vittæ on mesoscutum, with a brownish one between same behind suture, a lateral interrupted black vitta of the semicolon type but extending well posteriorly. First abdominal segment, broad hind borders of second and third segments and median vitta on same dark brown, the dark border of third segment widening laterally to cover whole of venter of that segment. Ventral vestiture of third segment black. Legs black, tibiæ with a brownish tinge. Wings very faintly infuscated, more distinctly so on costal half. Tegulæ very pale yellowish, the front scale more nearly white. Apparently golden-green in life.

Holotype, 22582 Am. Mus. N. H.

Xanthozona melanopyga *Wied.* One male, Chapada, Dec. Claws long; strong proclinate orbitals in male, no ocellars. Front and vertex practically same width in both sexes. Female front tarsi considerably widened. Second and third antennal joints nearly equal, the third convex on front border. Second aristal joint distinctly elongate. Frontalia much widened anteriorly. Anal segment long, its front border strongly arcuate. Abdomen swollen-eggshaped, small end apical. The female characters are from U. S. Nat. Mus. material.

Macrojurinia new genus.

Genotype, *Jurinia brasiliensis* Desvoidy, 1830, Myod., 35.

This is the species figured by Williston on page 44 of the third edition of his Manual of North American Diptera (1908). The form is very broad and flattened, surpassing that of *Paradejeania* in this respect; the palpi are rounded apically, heavy and bowed, of distinct type from those of *Jurinia* and *Paradejeania*. Female front tarsi widened. Female abdomen especially broadened and emarginate behind.

Eyes bare. Ocellar bristles absent. Male vertex rather over one-third head-width, that of female but little wider. Female with two strong proclinate orbitals, male without same. Proboscis heavy and corneous, rather short; palpi shorter than antennæ. Second aristal joint elongate. Scutellum and abdomen thickly covered with erect spines; no sagittal rows.

Four females and one male, Chapada, two of them labeled Nov. The females measure as long as 18 mm., with 11 mm. breadth of abdomen. All agree perfectly with Desvoidy's description; the form is a well-marked one, the black front especially distinguishing it at once.

In this connection, it becomes necessary to point out that *Pseudohystieria* B. B. (genotype, *ambigua* Mcq.) is a synonym of *Jurinia* R. D. (genotype, *gagatea* R. D.), since the genotypes are strictly congeneric. I identify both species quite unmistakably in Peruvian material. Brauer & Bergenstamm's designation of *Tachina obesa* Wd. as type of *Jurinia* cannot hold, as that species was not originally included; Coquillett's designation of *gagatea* R. D. appears to be valid. In the above comparison, *Jurinia* therefore represents *Pseudohystieria* B. B., and is used purely in that sense.

Chrysoexorista viridis *T. angustifrons* new subspecies.

Length of body, 6.5 to 9 mm.; of wing, 5.75 to 7 mm. Six males, Chapada, Nov.

C. viridis was described recently on a single specimen of each sex taken by the writer in the montana of southeastern Peru. The Chapada males show the front much narrower than described for the Peruvian male. The vertex averages two-thirds of one eye in width, but is even less in some specimens. The frontalia are narrowed considerably posteriorly in most of the specimens. The material evidently represents a distinct subspecies.

Holotype, No. 22583 Am. Mus. N. H. Paratype, No. 20013 U. S. Nat. Mus.

Macromeigenia aurea new species.

Length of body, 11 mm.; of wing, 8.5 mm. One female, Chapada, Jan.

Differs from *M. chrysoprocta* Wied. as follows: Eyes almost bare, with only very sparse indistinct hairs. No median macrochaetae on first two abdominal segments, or at most a vestigial marginal pair on second; no discal on third. Pollen of whole dorsum distinctly golden. Four heavy black thoracic vittae, and a fifth one behind suture. Anal segment more heavily golden pollinose and showing less rufous. Wings distinctly infuscate on costal portion, to less extent along veins.

Holotype, No. 22584 Am. Mus. N. H.

Wiedemann's description indicates that his material was from North America. His description does not apply to this Brazilian form.

Beskia cornuta B. B. One male, Chapada. The antennæ resemble those of the North American and West Indian forms.

Bibiomima handlirschi B. B. One female, Chapada, Jan. This very remarkable and most striking fly appears to be an aberrant member of the Phasiidæ. The facial characters approach those of the Rhodogynidæ. In its whole form and coloration, including the peculiar pattern of wing-infuscation, this fly is a counterfeit of the widely distributed tropical American *Plecia plagiata* Wied. Even the upwardly-incurvate abdomen in the present specimen simulates the posture of the male abdomen in that species. Brauer & Bergenstamm remark on this resemblance.

Cylindrophasia new genus.

Genotype, *Ocyptera simillima* Fab., 1805, Syst. Antl., 313; *Phania simillima* Wied., 1830, Auss. Zweifl. Ins., II, 267-8.

Comes nearest to *Polistomyia* Towns. on male and female hypopygial characters. Differs in the cylindrical abdomen; hind tibiæ with scanty or short cilia, often very sparse in female; wings clear on more than inner half. Ovipositor flattened and very narrow, sinuate in profile, chitinous, polished; with a pair of elongate forceps-like guards approximated to its dorsal surface, the guards bearing hairs on dorsum except at tips. Male hypopygium placed ventroapically, its basal plate rather longer than wide. Male abdomen very narrow, of absolutely even width. Female abdomen slightly wider.

Three females and one male, Chapada, one of the females labeled Dec. These agree well with Wiedemann's description. The hind tibiæ of the male are wholly black. An oblique silvery patch shows on each side of first three abdominal segments, especially in the male.