

# NEW DIPTERA OR TWO-WINGED FLIES FROM SOUTH AMERICA

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The following paper contains descriptions of 20 new species and 4 new genera of Diptera from South America. The types of all the species, except that of *Daetaleus purpureus*, are in the United States National Museum.

As the paper was going through the press it became possible to include as paratypes some material collected in Chile and Argentina by Edwards and Shannon. I hope to take up the bulk of their muscoid collections in a later paper.

## Family STRATIOMYIIDAE

### Genus ODONTOMYIA Meigen

*Odontomyia* MEIGEN, Illiger's Mag., vol. 2, 1803, p. 265.

#### ODONTOMYIA TREMOLERANA, new species

One of the largest species (male 15 mm., female 16 mm.); thorax green throughout except for three dorsal black stripes, which in the males join together just before the scutellum; the central stripe is greatly widened in front. Between the front and middle coxae, along the median line is an oblong area which is reddish yellow. Abdomen green with a dorsal narrow, sharply defined black median stripe on second and third segments, spreading vaguely out over the fourth and fifth; in the female the abdomen is very broad and there is a distinct trace of a brown stripe on each side halfway between the middle and the margin. Coxae and femora green; tibiae and tarsi reddish.

Head of male green below and behind, rather strongly carinate below the antennae; labella large, black; eyes bare, hardly contiguous, with an area of small facets occupying the lower fourth. First two antennal joints reddish, short, of equal length, third joint broken off.

The female has small eyes, as usual, the front green with a roundish black spot covering the ocelli, and a black band from eye to eye

passing just above base of antennae, the color deepest in the middle and close to eye.

Wings hyaline, the costal margin yellow; third vein forked at tip; three veins from discal cell which curve forward and become evanescent.

Described from two males taken at Menafra, Rio Negro, Uruguay, December 15, 1914; and one female from Montevideo; all received from Juan Tremoleras, to whom the male paratype has been returned.

*Type*.—Female, Cat. No. 29367, U.S.N.M.

The nearest related described species appear to be *Odontomyia quadrilineata* Macquart<sup>1</sup> and *O. histrio* Walker.<sup>2</sup> Both are large species like this; the former, however, has a black band across the middle of the front in the female, and the latter has a spot on each side marking the beginning of the band; in both the description of the abdomen fails to indicate such a narrow black median stripe as in the present species.

## Family CYRTIDAE

### Genus OCNAEA Erichson

*Ocnaea* ERICHSON, Entomographien, 1840, p. 155.—COLE, Trans. Amer. Ent. Soc., vol. 45, 1919, p. 23, definition and key to North American species.

The genus includes 13 known species, all American and mostly tropical; four, however, occur in the southwestern part of the United States, namely, *coerulea*, *helluo*, and *loewi* in Texas, and *flavipilosa* in Arizona. The two species here described are from Ecuador, and among the largest of the genus, the specimens measuring from 12 to 17 mm. in length. Only *calida* and *grossa* approach this size, and the latter, having bare eyes, is probably better placed in *Apelleia* Bellardi.

#### OCNAEA GIGAS, new species

*Male*.—Chestnut brown, second abdominal segment lighter, third to sixth segments above except at sides much darker in two of the three specimens, blackish with slight bluish tinge; venter with the broad sternites variably infuscated; thoracic dorsum subshining, with or without a pair of lighter submedian lines diverging forward; femora and tibiae black, the tarsi brown. Antennae blackish, inserted just in front of the large posterior ocelli (the front ocellus absent), basal joints large, third long, sickle shaped, slender and curved downward, reaching below the head, without hairs on any part. It is twice as long as in *tumens*, figured by Walker. The

<sup>1</sup> Hist. Nat. Dipt., vol. I, 1834, p. 248, locality South America.

<sup>2</sup> Dipt. Saund., 1851, p. 77, locality Brazil.

compound eyes literally cover the whole head except the flattened hind surface and a triangle above where the ocelli and antennae are situated. The two posterior ocelli are large and prominent, a transverse groove just anterior to them. Pile of eyes dense, dark in front, more pale yellow at sides. Proboscis visible but minute. Mesonotum covered with dense glistening pale yellow pile, the ground color mostly dark yellow with or without faint lighter stripes. Hind calypters translucent brownish yellow with well-defined brown rim and yellow fringe. Pile of abdomen yellow, much less conspicuous than on mesonotum. Wing small, tinged with yellow; the second and third veins fork just before the anterior crossvein, which is at the extreme base of the discal cell; an extra crossvein in the first posterior cell just beyond tip of discal, the second section of the first posterior closed and petiolate; all of the veins reach the margin; fourth posterior closed and with comparatively long petiole which is sometimes equal to the vein forming the apical boundary of the cell.

Length, 13 to 17 mm.

Described from three males collected at Mera, Ecuador, in February, 1923, by F. X. Williams; they were received from the Hawaiian Sugar Planters' Association, to which one paratype is returned. One specimen has notably paler thorax and abdomen than the others, having no distinct darker abdominal marking.

*Type*.—Male, Cat. No. 40987, U.S.N.M.

#### OCNAEA FALCIFER, new species

*Male*.—Head, thorax, legs, and abdomen black or brown, the second abdominal segment yellow on apical half or more, sides of second, third, and fourth, and posterior bands on the sternites also yellow; third antennal joint brownish yellow, long, slender, and sickle shaped as in *gigas*, but lighter in color; eyes with dense, long black pile; thorax with dense blackish pile, which has a reddish tinge when viewed from in front. Hind calypter deep brown, with black border and brown fringe. Legs black, the tarsi a little lighter. Wings small, with yellow tinge; venation as in *gigas*, but the second section of the first posterior cell is wide open in one specimen, narrowly closed in the other, and the fourth posterior cell is closed near margin in three of the four wings, wide open in the other. This open fourth cell is on the other fly from the open first.

Length, 12 to 14.7 mm.

Described from two males, collected with the specimens of *gigas*. The paratype is returned to the Hawaiian Sugar Planters' Association.

*Type*.—Male, Cat. No. 40988, U.S.N.M.

This species is so much like *gigas* in nearly all structural details that I have considered the possibility that one is a color form of the other. It is apparent that the color and venation are variable, but the differences seem to be sufficient to make the species valid.

### Family ANTHOMYIIDAE

#### Genus OPHYRA Robineau-Desvoidy

*Ophyra* ROBINEAU-DESVOIDY, Myodaires, 1830, p. 516.—RONDANI, Dipt. Ital. Prod., vol. 6, 1877, p. 34.—VAN DER WULP, Biologia, Dipt., vol. 2, 1896, p. 323.—STEIN, Archiv Naturgesch., vol. 83, 1917 (1919), p. 130.—SEGUY, Anthomyides de France, 1923, p. 277.—MALLOCH, Ann. Mag. Nat. Hist., vol. 11, 1923, p. 664.

Before describing a new species from Chile, I will notice the species already known from South America. All the extra-European species are listed by Stein in the article just cited by him.

#### OPHYRA AENESCENS Wiedemann

*Anthomyia aenescens* WIEDEMANN, Auss. Zweifl., vol. 2, 1830, p. 435.  
*Ophyra argentina* BIGOT, Annales, 1885, p. 302.—GIGLIO-TOS, Ditt. del Mess., vol. 4, 1895, p. 26.—VAN DER WULP, Biologia, Dipt., vol. 2, 1896, p. 323.  
*Ophyra aenescens*, STEIN, Berlin Ent. Zeitschr., vol. 42, 1897, p. 170; Ann. Mus. Nat. Hung., vol. 2, 1904, p. 451, and vol. 16, 1918, p. 234; Arch. Naturgesch. vol. 76, 1911, p. 100, and vol. 84, 1918 (1920), p. 42; Zeitschr. Hym. Dipt., vol. 7, 1907, p. 212.—BISHOPP and LAAKE, Journ. Agric. Research, vol. 21, 1921, p. 729.  
*Ophyra carbonaria* SHANNON and DEL PONTE, Rev. Inst. Bacteriologico, Buenos Aires, vol. 4, No. 5, 1926 (1927), pp. 20, 30.

This species may be distinguished from the others by having yellow palpi and black knobs on the halteres; it has a bronze tinge. It has been reported from Northern Chile by Stein, 1911 (Caldera, Antofagasta, Arica), and is known from Argentina, Brazil, Peru, etc., north to the southern part of the United States. *O. carbonaria* was recently described from Argentina. Bishopp and Laake, 1921, report that in their experiments they found the adult to fly more than four miles at the maximum from a point of liberation. I have received no Chilean specimens of this species.

#### OPHYRA SETIA Walker

*Anthomyia setia* WALKER, List Dipt. Ins., vol. 4, 1849, p. 956.  
*Ophyra setia* STEIN, Zeitschr. Hym. Dipt., vol. 1, 1901, p. 208.

This was described from a single female, collected by Darwin in the Galapagos Islands. Stein on examining the type in the British Museum reported that it is very like *O. aenescens* except in having yellowish halteres. No other specimens have been reported, and the male is unknown. However, the United States National Museum has four males from the Galapagos Islands of undoubted *O. aenescens*,



the knobs of the halteres being brown. It may be doubted whether *O. setia* is specifically distinct from *O. aenesceus*.

OPHYRA VIRESCENS Macquart

*Ophyra virescens* MACQUART, Dipt. Exot., vol. 2, part 3, 1843, p. 321 (sep. p. 164).

Briefly described from a female taken at Guaratuba, Brazil. The type is probably no longer in existence, and the identity of the species is very uncertain. The characters mentioned are: shining green; face with whitish pollen; antennae and legs black; calypters pale yellow; length 6 millimeters. Macquart also says, "thorax a bandes noirs," which as I understand his terms may mean either black longitudinal stripes or transverse bands on the thorax. If this character is well developed, in either sense, it ought to make the species recognizable. So far it remains unrecognized.

OPHYRA CUTILIA Walker

*Anthomyia cutilia* WALKER, List. Dipt. Ins., vol. 4, 1849, p. 954.

*Ophyra cutilia* STEIN, Zeitschr. Hym. Dipt., vol. 1, 1901, p. 194.

Described from Montevideo, only the female being known. Stein has added a few characters from his examination of the type. The most prominent feature is the blackish calypters. I have a male which I identify as this species, as the calypters are the same, and the deep blue color of the female occurs in this male overlaid with such pruinescence as usually distinguishes the sex in this genus.

Color dark blue; the head, pleurae, legs, antennae, and palpi are black; calypters brown, the hind one with blackish rim and long brown fringe. Wings uniformly infuscated.

*Male*.—Front very narrow, not much wider than front ocellus, still the linear shining parafrontals are separated by a slender median stripe. Lunule silvery, lower parafrontal shining black, quite narrow; the parafacial with brown pollen beginning at about the tip of the second antennal joint. Cheek about one-seventh of the eyeheight. Frontal bristles beginning below the middle of the space between ocelli and lunule; antennæ dark brown, the arista distinctly pubescent on basal third, slightly thickened at base, hind edge of eye scarcely at all emarginate in side view. Hairs of back of head all black.

Thorax almost black, subopaque; acrostichals 1,1 (anterior small); dorsocentrals 2, 4; intraalar 2, supraalar 1 (no prealar); presutural 1; sternopleura with a small bristle anteriorly and one large one behind, acrostichal hairs in about four rows. Hind calypter long and with unusually heavy fringe. Halteres yellow with blackish knob.

Abdomen with rather dense and erect hair, rather flat toward the base with thin brownish pollen when viewed from behind on which is the beginning of a median dark line. Front tibia without outer flexor bristle, middle tibia with two bristles behind, the upper at the middle, hind tibia with a very distinct calcar below the middle, and on the outer flexor side two bristles below the middle. Middle femur with about a dozen truncated bristles on the under side near base, on the hind side with a dense slanting row of small bristles extending the whole length. Hind femur on the outer side with a distinct row of bristles the whole length, becoming more dorsal toward the tip, also two or three stubby truncate bristles near base on under side and a partial row of bristles on the outer flexor side beyond middle. Claws and pulvilli short. Wings rather narrow, evenly infuscated.

Length, 6.4 mm.

Described from one male, Sao Paulo, Brazil, Dr. A. Lutz.

**OPHYRA VILLOSA, new species**

Shining blue green with black legs, antennae and palpi. Wings hyaline. Calypters white. Hind tibia with long villosity.

*Male*.—Front nearly as wide as ocellar triangle, the shining black distinctly punctured parafrontals separated by the median stripe which at narrowest is as wide as one parafrontal. The frontal bristles begin just above the middle of the space between the ocelli and lunule, the latter silvery, very conspicuous. Parafacials narrow with dull gray pollen which extends across the face. Cheek about one-tenth the eyeheight. Hind edge of eye distinctly emarginate along the middle. Mesonotum with rather dense erect hairs, entirely shining. Before the suture there are about four rows of delicate rather long acrostichal hairs, but the remaining surface is so hairy that they are difficult to distinguish. Dorsocentral bristles more or less hair-like except the hindmost pair. Anterior sternopleural very minute or absent, the calypters white with white rim and fringe, the hind one projecting considerably but not so long as in *O. cutilia*. Halteres black the stem yellow toward base.

Abdomen wholly shining with long erect pile except in the middle of the dorsum. Legs black, claws and pluvilli not elongated; front tibia without a bristle on the outer flexor side. Middle tibia with two bristles on hind side. Hind tibia with long, erect, but not dense villous hairs or bristles in two rows on the outer and inner flexor sides, the intervening space with few hairs. Wings hyaline, third and fourth veins very slightly convergent.

Length, 4.2 to 4.6 mm.

Described from two males, collected at Perales, Chile, February 1925, by Father Anastasio Pirion, received from Alfredo Faz, who has retained some additional specimens.

*Type*.—Male, Cat. No. 28897, U. S. N. M.

### Genus HYDROTAEA Robineau-Desvoidy

*Hydrotaca* ROBINEAU-Desvoidy, Myodaires, 1830, p. 509.

#### HYDROTAEA FUSCISQUAMA, new species

Deep black, including palpi, antennae and legs; closely allied to *H. dentipes* Fabricius, but having infuscated calypters with black rim and fringe, and the abdomen with light blue pruinosity.

*Male*.—Front including parafrontals black, about as wide in middle as the ocellar triangle; parafacials silvery from the antennal insertion down, becoming brown on lower part; lunule small, golden. Two or three upturned bristles on the cheek next to the vibrissae.

Thorax rather shining black, only when viewed directly from behind is there is trace of brown pruinose stripes anteriorly. Acrostichal 3,5; dorsocentral 2,4; humeral 3; posthumeral 1; presutural 1; notopleural 2; supraalar 3 (small except middle one); intraalar 3; postalar 2; sternopleural 1,1 (some posterior large hairs almost like bristles). Halteres black. Calypters, as noted above, the posterior projecting far beyond anterior.

Abdomen with striking light blue color on black ground, only a trace of median dark stripe. The blue pruinosity extends on venter to the membrane, and even on the sternal plates.

Legs shining black, pulvilli white and not enlarged. Front femur with the usual two thorns below near tip; on the outer flexor side below near base are five long bristles, on the inner side just before the thorn is a row of about six short depressed spines. Front tibia irregularly flattened and concave on flexor side, on outer flexor side near tip with elongated brush-like series of erect hairs. Middle femur with two rows of bristles on front side of basal half, the lower long; a uniform row of small slanting bristles on hind side, and on lower hind side a row of long straight spines on basal half. Middle tibia with rather dense, short, suberect hairs on whole length of front side, on hind side two bristles near middle. Hind tibia straight, not provided with a keel-like brush of short hairs on flexor side at apex, but with a long calcar below middle and on outer side a fairly regular row of cilia.

Wings distinctly brown, the fourth vein converging toward third precisely as in *H. dentipes*.

*Female*.—Front with the usual cruciate bristles. Parafacials colored as in the male, but a little wider. Thorax as in male. Abdo-

men ovate but colored as in male. Legs plain as in female *H. dentipes*. Wings and calypters less infuscated than in male, but the latter with dark rim and fringe.

Length, male 6.3 mm., female the same.

Described from one male and one female, collected at Perales, Quilpue, Chile, by Father Anastasio Pirion, on January 25. Received from Alfredo Faz, who has other specimens not seen by me.

*Type*.—Male, Cat. No. 28876, U.S.N.M.

## Family SARCOPHAGIDAE

### Genus OPSIDIA Coquillett

*Opsidia* COQUILLET, Journ. New York Ent. Soc., vol. 3, 1895, p. 102.—  
ALLEN, Proc. U. S. Nat. Mus., vol. 68, art. 9, 1926, p. 41.

#### OPSIDIA INTONSA, new species

*Male*.—Front narrowest on the lower part where it measures half the head width, the eyes approximate each other still more across the face. Head covered with dark plumbeous pollen and unusually hairy and bristly; frontal stripe almost the same color as the parafrontal, the latter with a somewhat double row of bristles and two proclinate orbitals; parafacials broad with numerous coarse hairs and a diagonal row of bristles above the transverse impression. Front margin of the head in profile is shorter and more vertical than in *O. gonioides*, genotype of *Opsidia*, and the third antennal joint is much shorter. Antennae black, the base somewhat reddish, the third joint less than three times the second; arista rather short, the penultimate joint not elongated; antennal depression quite deep, ending, however, a little above the mouth; vibrissae not well developed; palpi brown, of ordinary structure; proboscis slender at base, the tip broken off.

Thorax blackish with a little thin pollen forming more distinct cinereous spots on the humeri, postalar declivity and margin of scutellum. Anterior acrostichal 3, posterior numerous and hairlike. Pleurae shining black.

Abdomen subshining black with thin whitish pruinosity denser on the bases of the segments, except the first, and forming a larger spot on the middle of each. First, second, and third segments with a single pair of median marginals; fourth segment with two or three pairs.

Legs black, middle tibia with one bristle on the outer front side; hind tibia with about a dozen forming a rather even row on the outer hind side and one large in the middle of the row.

Wings subhyaline, the base yellow, veins elsewhere black; first posterior cell open far before the apex; bend of fourth vein with a distinct fold but no fork; hind cross vein joining the fourth more



than two-thirds of the way from the small cross vein to the bend; last section of the fifth vein one-third the preceding. Veins bare except the third, which has four or five hairs at base.

Length, 6.2 mm.

Described from one male collected at Santiago, Chile, by Alfredo Faz.

*Type*.—Male, Cat. No. 28908, U.S.N.M.

#### Genus PACHYOPHTHALMUS Brauer and Bergenstamm

*Pachyophthalmus* BRAUER and BERGENSTAMM, *Zweifel. Kais. Mus.*, pt. 4, 1889, p. 117; pt. 6, 1893, pp. 170, 195.—ALLEN, *Proc. U. S. Nat. Mus.*, vol. 68, art. 9, 1926, p. 7.

#### PACHYOPHTHALMUS ORNATICAUDA, new species

*Male*.—Front 0.21 of head width, covered with yellowish pollen and having the usual double row of bristles to the antennae. Parafacial with slightly paler pollen, the facial ridges with a few small bristles above the vibrissae; antennae black, the third joint a little longer than the second; arista short; palpi black, proboscis short.

Thorax shining black with very striking white pollinose stripes, one on each side of the middle, and another from the humerus to the root of the wing having a more yellow tinge behind the humerus. When viewed from behind there is also an incomplete stripe from the suture to the postalar declivity above the root of the wing. The white stripes next to the middle reach to the apex of the scutellum. Pleura very pollinose, a black stripe from the humerus passing below the root of the wing and another indefinite stripe along the upper edge of the sternopleura.

Abdomen black with a paler pollinose stripe on each side of the median line partially divided into spots and composed of pollen which shows some brown reflections; the first three segments are broadly gray pollinose below and on the sides, that on the sides forming a silvery spot on the second and third segments, the fourth segment deep golden pollinose, especially well colored on the sides, the hind edge wider in the middle, shining black. Genital segments black; inner forceps shining black, the outer yellow.

Legs black, the claws and pulvilli elongate. Wing hyaline with the usual venation for the genus.

Length, 5.2 mm.

Described from one male, collected at Perales, Chile, by Father Pirion and transmitted to the U. S. National Museum by Alfredo Faz.

*Type*.—Male, Cat. No. 28909, U.S.N.M.

The species has some resemblance to *P. trivittata* Townsend, described from Peru,<sup>3</sup> but the general color of the thorax and abdomen is much blacker and the pollen is rather bluish instead of yellow so that the deep golden or almost orange pollen of the fourth segment makes a very strong contrast.

#### Genus BRACHYCOMA Rondani

*Brachycoma* RONDANI, Dipt. Ital. Prod., vol. 1, 1856, p. 69.

*Laccoprosopa* TOWNSEND, Trans. Amer. Ent. Soc., vol. 18, 1891, p. 365;

Ins. Ins. Menst., vol. 3, 1915, p. 116.

*Bombobrachycoma* TOWNSEND, Ins. Ins. Menst., vol. 6, 1918, p. 157.

#### BRACHYCOMA RUFICAUDA, new species

Entirely black except the fifth abdominal segment in female and second genital segment of male, which are bright reddish-yellow.

*Male*.—Front at narrowest one-fourth the head width (three measured 0.26, 0.26, and 0.27), the median stripe broad, black. Parafrontals silvery but with dark reflections especially opposite antennal insertion; frontals reaching level of arista; parafacials silvery above, grayish below, width at narrowest half that of third antennal joint, about four large bristles and a few hairs on lower part near eye; facial ridges bare except near vibrissae, which are at oral margin; epistoma prominent; palpi black; cheek one-fourth of eye height. Third antennal joint hardly twice the second, arista pubescent near base, its second joint distinct but hardly elongated; back of head not very bulging, with only black hair.

Thorax black with four narrow stripes of white pollen, the outer on the margin, the inner just mesad of dorsocentrals and extending in some lights rather vaguely upon the sides of the scutellum; another pair of stripes lie above the supraalar bristles and in rear view extend across the suture anteriorly. Chaetotaxy: dorsocentral 3,3; acrostichal 0,0; humeral 3; presutural 1; notopleural 2; supraalar 2; intraalar 2; postalar 2; sternopleural 2,1; scutellum with two lateral pairs, no apical, the disk with numerous upright slender hairs, no post scutellum. Abdomen black with bluish reflection, viewed from behind with four rows of silvery pollinose spots on second to fourth segments; second segment with one median marginal pair of bristles, third with marginal row of 10, fourth with marginal row of 12 or more; venter black with four pairs of white pollinose spots, not very distinct. First genital segment shining black, with a row of stout bristles; second red with bristles and hairs not in rows on posterior part. Inner forceps red at base, becoming black and slender and curving forward and slightly outward to a sharp tip. Outer forceps

<sup>3</sup> Proc. U. S. Nat. Mus., vol. 43, 1912, p. 363.

as usual reduced to small red lobes. Penis rather long, black except at base, the tip suddenly bent forward in two flat rounded lobes, somewhat hoodlike, under which several minute sharp processes project toward the base of the organ; about the middle on the front side a flat attachment arises which extends cephalad and then curves broadly toward the tip of the penis, usually resting against it in the spread specimens. Posterior claspers slender and curved clawlike, anterior shorter and less slender, the extreme tip notched into two minute points.

Wing subhyaline, costal spine distinct, third vein hairy almost to the crossvein, first vein usually with one to four coarse hairs or spinules near middle (absent in both wings in 4 specimens out of 23).

*Female*.—Front one-third of head width (0.33, 0.34, 0.37 in three specimens measured); the usual two pairs of orbital bristles. No median marginals on second segment, on the third a noticeable space between the median pair and the rest of the row. Fourth abdominal segment above and three evident sternites below, yellowish red, contrasting as in the male with the rest of the abdomen. The rows of pollinose spots on dorsal surface of abdomen are larger than in the male, tending to be a little tessellated. The hairs of scutellum and abdomen are less erect than in the male.

Length, 4 to 7.5 mm.

Described from 8 males and 15 females; 20 including the type are from Angol, Chile, collected by D. S. Bullock in December, 1925, and January, 1926; one from Santiago, Chile, collected by A. Faz in 1923; two are from Southern Chile, collected many years ago by M. J. Rivers.

*Type*.—Male, Cat. No. 40963, U.S.N.M.

The species differs from the type of the genus, *Tachina devia* Fallen, with which it has been compared, in having the head less bulging behind, the parafacial with stronger bristles, the prescutellars wanting, and the costal spine stronger, as well as in the usual presence of a few setules on the first vein.

## Family TACHINIDAE

### CALLESTHES, new genus

The genotype is a minute muscoid fly with hypopleural bristles, well developed postscutellum and plumose arista. Front rather prominent, antennal axis about one-fifth longer than vibrissal. Antennae inserted at the middle of the eye; face flat below with very slight keel on upper part; vibrissae at oral margin, which is somewhat above the lower edge of the head. Facial ridges bare; palpi ordinary, proboscis small. Cheek nearly one-half the eye height. Male with a single pair of rather large verticals; frontals beginning some

distance before the ocelli, none reclinate, extending barely to the antennae. Parafacial with delicate hairs in a single row. The dorsocentral immediately before the suture and the last one before the scutellum are much larger than those anterior to them. Abdomen without discals. Wing somewhat rounded, a well-developed costal spine; first vein bare, rather short, ending just in front of the small crossvein, the large crossvein straight and rather erect, joining the fourth vein half way between the crossvein and the bend, which is obliquely rounded. Apical crossvein concave, the cell ending just before the apex.

**CALLESTHES HISTRIO, new species**

*Male.*—The whole fly is opaque black with the following parts white pollinose: the orbits, parafrontal, parafacial, face, a narrow crossband on the thorax just in front of the suture which extends forward at the sides to the hind edge of the humerus and obliquely downward across the pleura to include the middle of the sternopleura as far as the coxa; another white crossband just in front of the scutellum extending laterally to the postalar calli and anteriorly to the hindmost dorsocentral; the second, third, and fourth abdominal segments have at the front edge a broadly interrupted narrow crossband.

Front 0.21 of head width at the narrowest part, which is a little above its middle, the median stripe is very narrow especially toward the antennae, where it is not more than one-third of the width of one parafrontal. The parafacials are about as wide as the third antennal joint. Antennae black, the third joint one and a half times the second, the extreme base of the arista rather strikingly swollen, suddenly becoming slender where the plumosity begins; palpi black. Cheek one-third the eye height, almost entirely bare, the transverse impression soft and reddish.

Thoracic chaetotaxy: acrostichal 3, 3 (all small); dorsocentral 2, 3; intraalar 2; supraalar 2 (the hind one hairlike); postalar 2; humeral 2; posthumeral 1; notopleural 2; presutural 2 (the inner minute); sternopleural 1, 1; scutellum with one large lateral and one large apical, no distinct discal. First abdominal segment with marginal row of bristles mostly rather small; second segment with a marginal row, the median pair and one lateral pair large; third segment with marginal row of eight rather large; fourth segment with a similar marginal row, no discals.

Legs black, pulvilli brown, not much enlarged. Middle tibia with one stout but not long bristle on outer front, two on outer hind side and one flexor. Hind tibia with two bristles only on outer hind side; same on inner hind side.



Wings dark brown, calypters a little lighter brown; third vein with two hairs at base.

Length, 4 mm.

Described from two males collected by F. X. Williams at Tena, Ecuador, February 17, 1923. The paratype is returned to the Hawaiian Sugar Planters' Association.

*Type*.—Male, Cat. No. 40980, U.S.N.M.

The striking and beautiful pattern of the markings is very similar to *Lydellothelaira collaris* Townsend and also like Wiedemann's *Zosteromyia dilecta*, but these are entirely different in many characters.

#### DAETALEUS, new genus

Belongs to the tribe Theresiini, and agrees with the genotype of *Theresia* (*tandrec* Robineau-Desvoidy) in having the facial keel slight above, disappearing below; palpi and proboscis of ordinary form; no discals on first three abdominal segments and no marginals on first two; and in various minor characters. It differs mainly in having the epistoma much more protuberant, and quite strikingly in possessing the metallic color of many Calliphorids.

Hypopleural bristles and postscutellum well developed. Front not prominent, antennal axis shorter than vibrissal; frontal stripe (male) triangular; only one small pair of verticals, a cluster of proclinate hairs arising from ocellar triangle; frontals barely reaching antennae, small; parafacials, eyes and facial ridges bare; antennae arising below level of eye middle, third joint twice the second, arista plumose; vibrissae above epistoma, not approximated; back of head not bulging. Calypters bare above. Abdomen short and broad, the sternites concealed, only showing a little of first segment.

#### DAETALEUS PURPUREUS, new species

*Male*.—Front narrow above, before ocelli hardly wider than ocellar triangle and the median stripe reduced to a line; head entirely yellow in ground color except upper part of back, and with yellow pollen; palpi and antennae wholly yellow, including arista, which has thin and erect plumosity; beard yellow in most lights but the shorter hairs changeable. Thorax blackish, the sides and scutellum metallic. Chaetotaxy: humeral 3, notopleural 2; posthumeral 1; presutural 2 one side, 3 the other in close longitudinal row; acrostichal 0, 2; dorsocentral 3, 4; intraalar 2; supraalar 3; postalar 2; sternopleural 2, 1; scutellum with 2 large marginals, 1 apical and 1 discal, all represented by scars in the type. Calypters of usual size nearly white. Abdomen wholly metallic purple, mostly

shining; all the segments with thin whitish pruinosity above in certain angles, more constant below; fourth segment with some smallish bristles, only scars in the type; genitalia (fig. 1) small, with characteristic broad lobe like outer forceps of the "Dexiidae," the penis long, slender, and jointed. Legs yellow (only the front ones present).

Wings distinctly infuscated; fourth vein obliquely but rather angularly bent, the first posterior cell rather widely open distinctly before the apex; first vein bare, third with three or four small hairs at base.

Length, 8 mm.

Described from one male, collected in Brazil by Beske, sent for identification by the Vienna Natural History Museum, to which it is returned.

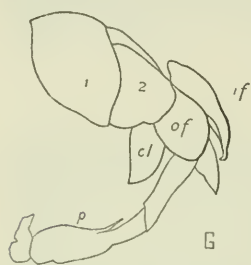


FIG. 1.—DAETALEUS PURPUREUS. GENITAL SEGMENTS AND GENITALIA OF MALE FROM LEFT SIDE. 1, 2, GENITAL SEGMENTS; if, INNER FORCEPS; of, OUTER FORCEPS; cl, CLASPER; p, PENIS. (DRAWN BY C. T. GREENE)

#### Genus INCAMYIA Townsend

*Incamyia* TOWNSEND, Proc. U. S. Nat. Mus., vol. 43, 1912, p. 317. Female only; type and sole species, *cuzcensis*, new.

*Sphalloglandulus* TOWNSEND, Proc. U. S. Nat. Mus., vol. 49, 1915, p. 438. Male only; type and sole species, *S. unicus*, new, equals *cuzcensis*.

The synonymy is from the type specimens in the National Museum. Both species were described from Peru; Townsend placed *Incamyia* in the family Phaniidae, and *Sphalloglandulus* in his Exoristidae. He apparently combined these families with Tachinidae later.

The genus is allied with *Lydella* and *Eucelatoria* in having infrasquamal setules (a small group of minute hairs on the thorax just below the line of attachment of the hind calypter), except in one species noted below, and in having in the female sex a keeled abdomen with piercer of about the same type. From *Lydella* it differs in having hairy eyes, and from *Eucelatoria* also by having the facial ridges much more bristly and the second antennal joint longer. *Phorocera* is also a related genus, but it has the second antennal joint less than half the third, the face more receding, small apical scutellars, and no median upright pair of discal scutellars.

The type species of *Incamyia* and the three new species here described form a very compact group occurring in Peru, Chile, and Argentina, all being black in color with mesonotum bearing a median whitish stripe and a well-defined lateral border of the same, so as to give the effect of a heavy black stripe each side of the middle on white ground. The face is nearly vertical, back of head prominent below, check equal to nearly one-third of eyeheight. The back of head

below has mostly black hairs, the white ruff being small. Proboscis and palpi of ordinary form, the latter black or very dark reddish; vibrissae almost at edge of mouth, facial ridges with strong bristles almost meeting the frontals, which descend nearly or quite to the arista. Second antennal joint more than half the third, arista with basal joints short. Female with three pairs of orbital bristles, the anterior proclinate, the other two turned more outwardly; ocellars present and proclinate. Thorax with three posterior dorsocentrals, acrostichals 3,3, sternopleurals 2,1, inner presutural present. Scutellum with a median discal pair of upright slender bristles close together, and another pair nearer the tip and farther apart, the space between the discals and the tip bare; three lateral pairs of scutellar bristles, the last long and divergent, no apicals between them. Intermediate abdominal segments with each a single pair of discals. Middle tibia with three or four bristles on outer front side; hind tibia not ciliate, males with front pulvilli and claws moderately elongated. Fourth vein ending far before the tip of wing, third with only a few hairs at base, first bare. Costa with distinct spine.

## KEY TO SPECIES OF INCAMYIA

1. First posterior cell petiolate; second to fourth abdominal segments with sharply defined pollinose pale band covering basal third, remainder of these segments shining black..... *striata*, new species.  
First posterior cell open or barely closed in margin..... 2
2. Infrascapular hairs absent; basal pollinose abdominal bands as in preceding, but still narrower and more or less interrupted in the middle; scutellum pollinose only at tip..... *spinicosta*, new species.  
Infrascapular hairs present; pollen on abdomen not confined to distinct basal bands; scutellum pollinose from base to tip..... 3
3. Abdomen mostly gray pollinose, hardly at all tessellated, the pollen in the male extending upon the venter..... *cuzcensis* Townsend.  
Abdomen mostly dark, the pollen tessellated, in the male not extending upon the venter..... *chilensis*, new species.

## INCAMYIA SPINICOSTA, new species

*Male*.—Front one-fourth the headwidth at narrowest part (by micrometer .24, .26 and .26, in three specimens); parafacial and parafacial silvery, uniform in color, the parafacial a little narrower than width of third antennal joint; cheek one-third the eye height, its anterior part with a few bristles below the transverse impression.

Abdomen shining black, with silvery basal band on segments 2-4; first segment with a large pair of median marginals; second segment with large discal and marginal pairs; third with discal pair and marginal row of 12; fourth with numerous erect discals irregularly arranged. Genitalia small, black. Posterior forceps minute, separate, almost straight; anterior forceps (outer) red at base, flat and blade-like.

Wings subhyaline; fourth vein with rounded bend and thence straight to costa well before apex.

Length, 7 mm.

Described from two males from Perales, Chile, September 23, collected by Father Anastase Pirion. The place is Quilpue, about 30 kilometers from Valparaiso. These were transmitted by Alfredo Faz of Santiago.

One additional male, collected by Father Pirion, at the same place and on the same day, is larger (8.3 mm.) and has on the middle of the small crossvein in each wing a very large semierect spine, about as long as the hind crossvein. At first I supposed this would be a generic character, but the receipt of additional material lacking it and agreeing in other respects compels me to believe provisionally that this is a remarkable abnormality of the single specimen.

A female was collected by Edwards at L. Corrientes, Rio Negro Territory, Argentina; it is in the British Museum.

*Type*.—Cat. No. 28875, U.S.N.M.

#### INCAMYIA STRIATA, new species

*Male*.—Slightly smaller than *I. spinicosta*, differing by the characters mentioned in the key. The median pollinose stripe extends very distinctly in its full width to the tip of the scutellum; the basal white pollinose crossbands of the abdomen are very well defined and the segments are polished for the greater part of their length. The crossbands end abruptly just under the margin of the abdomen leaving most of the venter shining, or with very slight even pruinosity. Genitalia small, not spread. The apical crossvein not quite so oblique as in the other species, joining the third vein so as to leave a well defined petiole about as long as the anterior crossvein.

Length, male, 5 and 5.4 mm.

Described from two male specimens collected by C. H. T. Townsend at Oroyo, Peru, May 7 and 28, 1914.

*Type*.—Male, Cat. No. 40835 U.S.N.M.

#### INCAMYIA CHILENSIS, new species

*Male*.—Greatly resembles *I. spinicosta* in all respects, but differs in the characters mentioned in the key. When viewed directly from behind the pollen of the abdomen covers thinly almost the entire dorsal surface, more dense at the base where in side view it seems to form slightly interrupted crossbands. The fourth segment in side view is shining except at base.



*Female*.—Front at vortex .34 of headwidth, uniformly widening toward the mouth. Pollen of parafrontal and parafacial with a slight tinge of yellow.

Abdomen with a pronounced keel below on the second and third segments with a good sized curved piercer folded in, the edge of the keel in the third segment bears a series of very short but stout spinules not very noticeable; second segment with a very few spinules almost imperceptible. Dorsally the last three segments of the abdomen are pretty well covered with pollen which is yellowish on the fourth segment; the tip of the fourth segment and a large indistinct subtriangular area on the sides of the second and third are more shining black. The pollen becomes thinner at the margin so that the venter is almost shining.

Length, male 6.4 to 6.7 mm.; female, 5.5 to 6 mm.

Described from eight males and seven females. Four males including the type, and one female and allotype, are from Angol, Chile, collected in October and December, 1925, by D. S. Bullock; two males and four females from southern Chile (M. J. Rivers), one labeled, "Parasite of *Plusia depauperata*"; one male from Perales, Chile, September, 1923, collected by Alfredo Faz; one male from Calamarca, Argentina, swept from chrysanthemums by Max Kisiuk, May 23, 1927; one female from La Laoija, Argentina, June, 1927, swept in orchard by Max Kisiuk; and one female from Dolores, Buenos Aires, Argentina, March 29, 1927, swept in orchard by Max Kisiuk.

Four additional specimens are in the Edwards collection from Chile (British Museum)—a male from Llai Llai (a very small village 2 miles from Los Loros), a female from Los Andes, two males from Ancud and Puntra in S. Chiloe.

Shannon collected two males at Los Loros, Chile.

*Type*.—Male, Cat. No. 40836 U.S.N.M.

#### REEDIA, new genus

Related to *Peleteria*, but without palpi and with the bristles very strongly developed, those of scutellum and of abdomen above and below are straight and spine like. Chaetotaxy, head: vertical 2 large pairs; ocellar well developed, proclinate; orbital in female 3 (uppermost smaller); frontals about 11, the upper 2 reclinate and diverging, remainder converging toward middle line, lowest near eye at level of middle of second antennal joint. Thorax: acrostichal 2, 3 (none just before suture); dorsocentral 3, 4; humeral 7; posthumeral 2; presutural 2; notopleural 2; supraalar 3 very strong; intraalar 3; postalar 2 large and 2 small; sternopleural 2, 1; pteropleural 2 large; scutellum with 2 large laterals and a smaller diverging depressed

apical pair, besides numerous erect spines. Abdomen: first segment without median marginals; second with about 4 pairs of median marginal spines and some shorter on the disk before them, also 5 pairs at sides; third segment with a marginal row across dorsal surface and continuing below to ends of tergites on the venter, in middle dorsally a few small subdiscal spines as in preceding; fourth segment above and below wholly spiny except anterior third across dorsum. All the sternites bear groups of erect spines.

Proboscis slightly elongate; second antennal joint nearly as long as third, which is convex in front; penultimate joint of arista elongate; face protuberant over mouth, its lateral ridges with only a few bristles above vibrissae.

*Type of genus.*—*Reedia robusta*, new species.

**REEDIA ROBUSTA, new species**

A large, stout, blue-black species, abdomen wholly shining.

*Female.*—Front broad, 0.36 and 0.38 of the headwidth in the two specimens, subshining bluish-black as far down as the frontal bristles extend; parafacials with silvery white pollen and a few conspicuous black hairs, and bearing two large bristles below (one specimen has two on one side and only one on the other). The ruff of hairs on back of head is deep yellow. Thorax almost destitute of pollen; calypters white. Wings subhyaline; third vein with 8 or 10 hairs at base; bend of fourth vein rectangular; first posterior cell ending in costa far before apex of wing.

Legs black, very bristly; middle tibia with several stout bristles on outer front side.

Length, 15 to 16 mm.

Described from two females collected by Alfredo Faz; one (type) was taken at Concepcion, Chile, the other at Mendoza, Argentina.

Edwards collected two additional females and Shannon one in Concepcion, Chile; the former are in the British Museum.

*Type.*—Female, Cat. No. 28896, U.S.N.M.

The genus is named in honor of the late Prof. Edwyn C. Reed, who published several valuable papers on Chilean Diptera, including a catalogue in 1888.

**Genus ECHINOPYRRHOSIA Townsend**

*Echinopyrrhosia* TOWNSEND, *Ins. Ins. Menst.*, vol. 2, 1914, p. 90.

**ECHINOPYRRHOSIA TROPHOCYON, new species**

Differs from the genotype (*alpina* Townsend) in having no palpi at all, and in having somewhat more numerous spines on the abdomen. As in *alpina*, the head is very long, the epistoma remarkably projecting. Front at vertex 0.31 of the head width, frontal bristles sparse,

hairlike above; parafrontals covered with long erect black hairs, which continue on the parafacial. The pollen of the head is dark olive. Parafacial nearly as wide as eye, cheek three-fifths the eye height. Proboscis a little elongated, but not so much as the oral cavity, so it readily folds out of sight entirely. Cilia behind eye remarkably long, back of head with thin ruff of yellow hair.

Thorax blackish, not distinctly striped, the black pile of dorsum long and erect; pleura also with the same pile, especially abundant on mesopleura. Scutellum with dense row of straight, stiff spines on margin and a few upright discal. Calypters dark brown.

Abdomen black without lighter markings, at first seeming to be entirely covered above and below with stout spines; but on careful examination the anterior dorsal half or two-fifths of the third and fourth segments and the whole of the very short first segment, except the sides, are seen to be almost wholly bare. There are very abundant spines in the middle of the venter and at the lateral edges, between these regions some shining black bare surface is visible. Femora black, tibiae and tarsi to tip red; claws red basally, pulvilli brown. Femora and tibiae very spiny.

Wings entirely infuscated; fourth vein with slightly acute bend a little rounded off, ending far before apex; third vein with only a few hairs at base.

*Female*.—Front 0.34 of head width, two proclinate orbitals.

Length, of both male and female, 12 mm.

Described from 1 male and 4 females collected by F. X. Williams, on Mount Tunguragua, Ecuador, January 18, 1923; received from Hawaiian Sugar Planters' Association, to which two paratypes are returned.

*Type*.—Male, Cat. No. 40982, U.S.N.M.

#### Genus CHAETOCRANIOPSIS Townsend

*Chaetocraniopsis* TOWNSEND, *Ins. Ins. Menst.*, vol. 3, 1915, p. 68.

The type and sole original species is *C. chilensis* Townsend, described on page 69 of the above reference. It was described from a single male specimen, collected by E. C. Reed in Chile, and now in the United States National Museum. The genus was briefly described in comparison with *Chaetocrania*, but the generic characters of the latter were never published, as it was established by the mere citation of a species as type.<sup>4</sup> The following notes are taken from the type specimen of *chilensis*. It resembles the genotype of *Gonia* (*capitata* De Geer) in having reclinate ocellars, the parafrontals and parafacials wide and with coarse hairs, second joint of arista

<sup>4</sup> Townsend, *Proc. Biol. Soc. Wash.*, vol. 28, 1915, p. 23; type, *Spaltanzania antennalis* Coquillett.

elongated, face deeply depressed and narrow, its facial ridges high. It differs in having the facial ridges bristly almost up to the arista, which is short and thickened to tip; male without proclinate orbitals; the hairs of parafacials and parafrontals much coarser and more erect; the size considerably less, and the body more slender. Otherwise it is structurally very much like *Gonia*.

## KEYS TO SPECIES OF CHAETOCRANIOPSIS

## MALES

Arista with blunt tip, pulvilli of front tarsi longer than last tarsal joint; about 13 pairs of frontals----- *chilensis* Townsend.  
 Arista with acute tip, although thickened for most of its length; front tarsi with small pulvilli; about 8 pairs of frontals----- *argenticeps*, new species.

## FEMALES

Pollen of parafrontals and parafacials plumbeous----- *chilensis* Townsend.  
 Pollen of parafrontals and parafacials silvery----- *argenticeps*, new species.

## CHAETOCRANIOPSIS CHILENSIS Townsend

*Chaetocraniopsis chilensis* TOWNSEND, Ins. Ins. Menst., vol. 3, 1915, p. 69.

Besides the male type, the museum has received two females collected by Senor A. Faz at Perales, Chile. They have two pairs of orbitals, the arista is acute at tip, the third antennal joint is one and one-half times the second, the parafrontals and parafacials are somewhat less bristly than in the male. They differ from the females of *argenticeps* in having the front of head more bristly, as well as in the color of its pollen.

## CHAETOCRANIOPSIS ARGENTICEPS, new species

*Male*.—Front 0.48 of head width at vertex, inner edge of eyes straight and slightly diverging, separated by 0.61 of head width just above vibrissae; parafrontals and parafacials silvery, with less numerous bristles than in *chilensis*; antennae black, basal joints red, second hardly more than one-fourth as long as third, arista about two-thirds as long as third antennal joint, its apical segment four times the preceding; palpi yellow; cheek one-fourth eye height, distinctly narrower than parafacial, with black hairs; beard of back of head white. Thorax black, with indistinct stripes of pale pollen; dorsocentral 3, 4; sternopleural 4; scutellum with 3 marginal, a spiny suberect apical pair, and a small discal pair; calypters white. Abdomen shining black, basal half to three-fourths of second and third segments above white pollinose, which does not continue below. First and second segments with a pair of median marginals; third with a stout marginal row of 10; fourth with a smaller mar-



ginal row, no discals on any of the segments. Legs black; mid tibia with two erect bristles near middle of outer front side, two on outer hind, and one more sloping on flexor; hind tibia with several irregular on outer hind, two on inner hind and two on outer front side.

Wings subhyaline; third vein with 2-3 setules at base, fourth vein with rounded oblique bend, thence nearly straight to costa, more erect than usual.

*Female*.—Front 0.43 of head width at vertex, face 0.58 just above vibrissae. Second antennal joint one-half the third; a pair of proclinate orbitals.

Length, male 7 mm.; female 6.3 mm.

Described from a pair collected at Perales, Chile, by Rev. A. Pirion.

*Type*.—Male, Cat. No. 41390, U.S.N.M.

#### Genus SELENOMYIA Brauer and Bergenstamm

*Selenomyia* BRAUER and BERGENSTAMM, Zweifl. Kais. Mus., pt. 5, 1891, p. 361; pt. 6, 1893, p. 170.—ALDRICH, Annals Ent. Soc. Amer., vol. 18, 1925, p. 459.

The type species, and the only one so far known, is *S. brevicornis* Brauer and Bergenstamm, mentioned and more or less described in all the above references. Only one specimen is known, the type, which I borrowed from the Vienna Museum and later sent back. I am now describing three additional species which I refer to this genus; like the genotype, they are from Chile, where it seems to be a characteristic form. The third species, *facialis*, differs from the others in having the parafacials hairy and may ultimately go into a new genus; but from the slight taxonomic value of this character in other dexiid groups, as, for instance, *Ptilodexia* and *Rutilia*, I do not believe it is generic in the present case.

In this genus there is a high, sharp carina on the face, and the facial ridges are decidedly convergent and prominent below, so that there are well-marked and deep subantennal depressions which are entirely separated. The cheek is almost equal to the eye height and the parafacials are broad, about two-thirds of the cheek.

#### KEY TO THE SPECIES OF SELENOMYIA

1. Abdomen shining green, without pollen..... *virens*, new species.  
Abdomen black, with pollinose markings..... 2
2. Tibiae reddish-yellow; second and third abdominal segments with a pair of arcuate spots of pollen..... *brevicornis* Brauer and Bergenstamm.  
Tibiae black, abdominal spots not arcuate..... 3
3. Parafacials bare except on upper part..... *plena*, new species.  
Parafacials with coarse hair down to the lower edge of the eye.  
*facialis*, new species.

## SELENOMYIA VIRENS, new species

*Male*.—Dark metallic green in color, the abdomen wholly shining. Arista bare, hypopleural bristles and postscutellum well developed. Front at vertex narrow, only 0.16 of head width. Dimensions of head in micrometer units: height 66 (eye 38); length (antennal axis) 48; width 74. Vibrissal axis almost as long as antennal, but both back and front of head recede a little below. Pollen of parafrontals dark gray, that of parafacials decidedly brown, between is a large blackish spot on each side of the base of antennae, most distinct from in front. Vibrissae about two-thirds the length of the third antennal joint above the oral margin; facial ridges densely bristly and decidedly convergent on lowest third; face with thin, sharp carina, forming decided antennal grooves; antennae black, third joint hardly twice the second, arista of moderate length, its penultimate joint distinct but hardly elongated. Palpi dark yellow, of normal size; proboscis short, fleshy. Beard black.

Thorax dark green, with three broad stripes of white pollen which are distinct at front edge, but fade on the disk and are hardly visible at the suture. Humeri and sides of thorax before wings also with white pollen. Chaetotaxy: acrostichal 3, 3; dorsocentral 3, 4; humeral 6; posthumeral 3; presutural 1; notopleural 2 (with hairs around bases); supraalar 3-4; intraalar 3; postalar 2; sternopleural 2, 1; scutellum with three large lateral pairs, of which the third might be called large divergent apicals, and one or two pairs of widely spaced smallish discals. Calypters brown with blackish border.

Abdomen wholly shining dark green; second abdominal segment with two pairs of median marginals and two pairs of discals, one behind the other; third segment with two pairs of discals and a marginal row; fourth segment with a few erect bristles irregularly placed. Fifth sternite deeply cleft, the lobes with hairs only; genital segments small, dark brown; inner forceps united into a slender, almost needlelike organ, the outer forming broad concave plates as in many dexiids, but in this species decidedly truncate; penis a very slender black plate with a pale prolongation and at the base a pair of erect bladelike semitransparent pieces (claspers?).

Wings subhyaline, first posterior cell open and ending considerably before the apex; fourth vein curved backward at the bend, which is rectangular and slightly rounded; third vein with three or four setules at base.

Legs black, claws and pulvilli elongated, the latter brownish; front tibia with two outer bristles; middle tibia with three on outer front side; hind with a few irregular on outer side.

*Female*.—Front 0.27 of head width; two pairs of proclinate orbitals. Second abdominal segment with a single pair of median marginals, no discals.

Described from two males and one female, collected at Perales, Chile, near Santiago, by Rev. Anastase Pirion.

*Type*.—Male, Cat. No. 41382, U.S.N.M.

SELENOMYIA PLENA, new species

*Male*.—Like *virens*, but lacking the green color, and with abdominal markings. Black throughout, only the palpi yellow; parafacials brown, but without distinct blackish spot above; calypters white, the rim infuscated. Chaetotaxy as in *virens*, but the inner presutural is present; the third antennal joint is bulbous at tip; the dorsal pollinose stripes of the thorax are more distinct, being visible almost to scutellum; second and third abdominal segments with white pollen except on a broad median shining stripe and the posterior third of each, this pollen extending underneath almost to the middle. Fourth segment with very thin pollen on same portions. Second segment with one discal and one median marginal pair, third with one discal pair and marginal row. Genitalia black; the united inner forceps awl-shaped, the tip blunt, rounded, and turned back; outer forceps slender and pointed, not platelike. Front 0.24 of head width.

Described from one male, collected by D. S. Bullock at Angol, Chile, January 2, 1927; and a male and two females collected by Edwards at Concepcion, Chile; Peulla, S. Chile; and Lake Nahuel Huapi, Rio Negro, Argentina.

*Type*.—Male, Cat. No. 41383, U.S.N.M.

SELENOMYIA FACIALIS, new species

*Female*.—Front 0.26 of head width; only one pair of proclinate orbitals, which are high up and almost in the frontal row; the uppermost frontal small and turned outward (it is broken off in the female of *virens*, so I can not compare the direction and no other females are known); parafrontal and parafacial gray-brown pollinose, without distinct spot at antennae. Palpi brown; facial ridges on the convergent lower part not so bristly as in *virens*; arista pubescent; beard pale yellow except anteriorly; chaetotaxy and thoracic stripes as in *virens*. Abdomen black, almost covered with thin gray pollen, subshining in some lights, hind edges of segments shining; second segment with a marginal pair, third with marginal row, both with only a few stouter hairs in place of discals. Calypters white, the rim infuscated only on inner side. Legs as in *virens*, but the front tibia has a single outer bristle, and the hind one has a trace of reddish color on the middle. Wing as in *virens*.

Described from one female collected at Perales, Chile, by Rev. Anastase Pirion.

*Type*.—Female, Cat. No. 41384, U.S.N.M.

PIRIONA, new genus

Hypopleural bristles and postscutellum well developed; ocellars large in both sexes, curving directly to the side, neither proclinate nor reclinate; eyes and parafacials densely pilose; frontals ending hardly below base of second antennal joint; outer verticals not developed, inner strong, just behind them on occiput a smaller pair of convergent bristles, almost decussate; back of head bulging, front not prominent, antennal axis slightly exceeding vibrissal; cheek one-third of eye height, parafacial one-half of cheek; facial ridges bare, not prominent, vibrissae at oral margin, which is slightly above lower edge of head, not protruding; palpi normal, proboscis short, fleshy; antennae inserted just below level of middle of eye, reaching nearly to vibrissae, third joint rather wide, hardly twice as broad as long and much less than twice the second; arista bare, penultimate joint short; female with usual two pairs of proclinate orbitals. Scutellum with two laterals, a long decussate apical pair, and several irregular erect straight bristles. No acrostichals immediately before suture. A few minute infrasquamal setules present. Abdomen without median marginals on first segment, a pair of large discals and a pair of large marginals on second, third with a pair of large discals and a marginal row (marginals of second and third rather far forward). Female without piercer. Legs with large bristles, middle tibia with one large on flexor side, hind with several large bristles widely spaced on outer hind side. Wing of ordinary form, no costal spine, first vein bare, third with a few large hairs at base; fourth vein with angular, slightly oblique bend, ending distinctly before tip, the hind cross vein straight and joining fourth vein at last fourth of distance from small cross vein to bend.

I am unable to find a genus in the national collection with which this is closely related.

*Genotype*.—*Piriona fasciculata*, new species.

PIRIONA FASCICULATA, new species

*Male*.—Black, palpi at least basally and the tip of the second antennal joint reddish yellow. Front wide, 0.29 of head width on upper third, widening gradually; frontals 8, decussate, none reclinate, the first anterior to the ocellar triangle; frontal stripe wide, black; parafacials and parafrontals black, subshining; beard black. Thorax black, shining, with traces of white pollen at front edge only. Chaetotaxy: acrostichal 2, 2 (hindmost large and rather far before



scutellum); dorsocentral 3, 3; humeral 4; posthumeral 1; presutural 1; notopleural 2 (surrounded by hairs); supraalar 3; intraalar 3; postalar 2; sternopleural 2, 1; scutellum as mentioned. Calypters white, the rim blackish on inner edge. Abdomen broad and rather deep, the genital segments giving it a truncate appearance, subshining black but the intermediate segments with some thin white pollen in oblique view; bristles of fourth segment large and erect anteriorly, becoming denser and smaller on posterior part. First genital segment rather prominent, declivous, second more bulging. Inner forceps united into a slender black organ slightly bent forward at tip; outer forceps also black and slender; penis and claspers

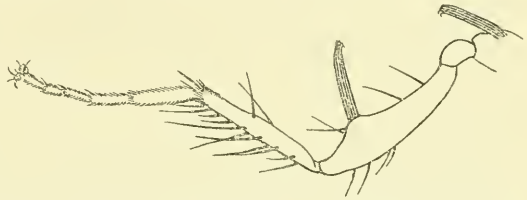


FIG. 2.—*PIRIONA FASCICULATA*, NEW SPECIES. HIND LEG OF MALE. (DRAWN BY C. T. GREENE)

black but not distinctly visible in the only specimen. Legs rather stout, front claws and pulvilli a little elongated; mid tibia with several bristles on outer front side, one at the middle fully half as long as the tibia, and one of almost the same length on the flexor side; hind tibia besides those on outer hind side has three on outer front and the same on inner hind. Hind coxa with a fasciculus of long black hairs on inner edge; hind femur curved, with a prominence at two-thirds of its length below, bearing a remarkable fasciculus of long black hairs. (Fig. 2.) Wing grayish, gradually becoming more clouded toward base.

*Female*.—Front at vertex 0.30 of head width, very gradually wider anteriorly. Genital segments not in position to examine, but evidently without piercer. Hind femur without fasciculi.

Length, 6.2 mm.

Described from one male and one female collected at Marga Marga, Chile, by Rev. Anastase Pirion, after whom I name this remarkable genus. Also from one male collected by Edwards at Bariloche, Rio Negro, Argentina (British Museum); and three males collected by Shannon, two at the place just mentioned, the other at Lago Gutierrez, Rio Negro, Argentina.

*Type*.—Male, Cat. No. 41385, U.S.N.M.