

NEW AMERICAN SYRPHID FLIES OF THE
SUBFAMILY ERISTALINÆ

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A number of species of Syrphid flies from the Neotropical region have been studied by the author during the past year. This paper describes the members of the subfamily Eristalinæ. The types are in the author's collection.

Eristalis vera n. sp.

A large species related to *scutellaris* but distinguished by entirely black pile in front of the transverse mesonotal suture and by the polished black hind tibiæ. Length 13 mm.

Female. *Head*: face, front and cheeks shining black, the sides of the face with wide, thin, greyish white pollinose bands which reach to the epistoma. Facial pile white; frontal pile, vertical pile black. The greyish white pollen of the face proceeds narrowly up along the frontal eye margin for two-thirds the length of the front. The upper portion of the front has an opaque black band extending from margin to margin which is acutely produced forward in the middle of the front for a short distance. The anterior margin of the black spot tends to be bordered by white pollen. The lower part of the front above the preantennal callus is slightly raised and minutely punctate. The callus has diagonal, rugose furrows on either side. The antennæ are black; the arista is reddish sepia becoming a little lighter towards the base. Eyes bare. Facial concavity moderately deep above the tubercle. *Thorax*: mesonotum and scutellum entirely black pilose; only the notopleura and the ventral scutellar fringe are whitish pilose. There is an indistinct grey band in front of the transverse suture. The anterior margin of the transverse suture itself is obscurely margined with greyish white pollen. Behind the transverse

suture there is a broad band of opaque black followed by a wider band of shining bluish black. In front of the scutellum there is a medially rounded, transverse band of opaque black extending forward at the postcalli to include all of these structures. The pile of the postcalli is entirely black. The scutellum is clear, opaque yellow with the declivitous portion of the base and narrow lateral basal triangles black. The pleural pile is white but black on the pteropleura. Squamæ white on the outer lateral basal corners, the remainder black or dark brown with blackish border and fringe. *Legs*: black, the basal third of the anterior and middle tibiæ dark sepia brown but only when viewed anteriorly or posteriorly. Hind femora and tibiæ polished black, the former considerably thickened, especially in the middle, the latter with a low, short, apical, angular production. *Tarsi* black. *Wings*: not quite hyaline basally; they are heavily but diffusely tinged with dark brown beginning just before the end of the second basal cell and the beginning of the submarginal cell. The deep brown color extends a little beyond the anterior cross vein and includes the stigmal area. Remaining apical half of wing pale brownish grey, partly due to the thick villi. *Abdomen*: shining black; very faintly bluish. There is a large, medial, posterior, hollow-sided triangle on the apex of the second segment which in the middle extends broadly to the base of the segment but quite narrowly to the posterior corners. Third segment with a posterior, biconvex, medially notched, opaque band. Fourth segment similar, the band less convex and the medial notch minute. Fifth segment with a small, oval basal black spot on either side, the remainder shining. Abdomen elongate and characteristic of the species of the *scutellaris* group.

Holotype: Female, Nova Teutonia, Brazil, Fritz Plaumann. Jan. to April, 1948.

Eristalis cora n. sp.

A dull obscure species with opaque rusty brown scutellum. Distantly related to *obsoleta* Bigot. Length 10 mm.

Female. *Head*: Face and front black, largely shining, the former with a very large, rounded, shining tubercle leaving the face deeply concave above. Upper portion of the face and narrowly along the sides of the eye margin above the tubercle, together with a diagonal stripe from the lower eye margin to the epistoma all greyish white pubescent. Pile of face long and yellowish white. Lower frontal pile yellowish with some black hairs intermixed, the pile becoming entirely black on the upper part of the front and vertex. There is a narrow, complete band of pale brownish yellow to yellowish white pollen across the front before the anterior ocellus and a similar narrow band across the middle of the front. The intervening area is opaque black but the transverse margins of these pollinose bands are irregular. The front has a crescentic, transverse crease just above the low short callus. The antennæ are very dark sepia becoming blackish on the dorsal half of the quite large third antennal segment. Third segment dark reddish below. Arista dark red and bare. Eyes with sparse, pale brown pile. *Thorax*: mesonotum dull in color and largely obscure yellowish grey pollinose. There is a diffuse, obscure, blackish spot in front of the suture on either side of the mesonotum. There is a larger, subtriangular, similarly opaque black spot widely bordering the posterior margin of the suture; this spot is widely separated from the spot upon the other side of the mesonotum and each extends posteriorly for a short distance towards the corners of the scutellum. This opaque black spot is rounded posteriorly but tends to fade out and become indistinct. From the posterior view the transverse suture is conspicuously bordered by a linear, pale, yellow, pollinose stripe. Scutellum opaque reddish brown or rusty brown. Pile of mesonotum yellowish anteriorly becoming distinctly brownish red on the posterior half of the mesonotum. Scutellar pile abundant, rather long and yellow, postcallar pile entirely reddish. Pleural pile entirely yellow to reddish yellow. *Legs*: the femora are shining black with the narrow apex of the anterior and middle pairs brown. The hind femora are considerably thick-

ened in the middle and become obscurely reddish upon the outer fourth, but more clearly reddish towards the apex. The anterior tibiae are quite black except narrowly at the base where it is reddish brown to yellowish brown in color. The middle tibiae are yellowish brown becoming more reddish in color beyond the middle. The hind tibiae are somewhat flattened, slightly arcuate and entirely deep reddish brown; the apex is without spur, the anterior tarsi are blackish with the first and second segments narrowly brown at the apex. The middle and hind tarsi are light brownish red to yellowish brown except upon the last segment which is dark brown. *Wings*: tinged with pale brownish yellow throughout, the costal and subcostal and narrow posterior margin somewhat paler. There is a very strong stigmal cross vein present. *Abdomen*: black and almost entirely shining with strong brassy reflections especially upon the second, third and fourth segments. The first segment is opaque grey and there is in the middle of the base of the second segment a rather large, opaque black, diffusely margined triangle which is bordered laterally by a wide, diagonal stripe of opaque grey pollen fading out before reaching the apex of the segment. Posterior margins of third, fourth and fifth segments with quite narrow, laterally attenuate, linear, opaque black margins followed by even wider, opaque, pale yellow margins; the pale yellow margin on the fourth segment is especially wide and conspicuous. Fifth segment shining black and somewhat brassy but this reflection is less pronounced than upon previous segments.

Holotype: Female, Nova Teutonia, Brazil, Fritz Plaumann. Jan. to April, 1948.

Eristalis claripennis n. sp.

A small species with opaque rusty brown scutellum, the eyes of the male narrowly separated and densely blackish pilose above. Related distantly to *obsoleta* Bigot. Length 8 mm.

Male. *Head*: face and front black, largely shining, the sides of the face widely greyish yellow pubescent

with long, sparse, yellowish pile. The front is obscurely brownish yellow pollinose above; the eyes are separated by not quite twice the width of the anterior ocellus. Vertex opaque black, the pile of front and vertex long and black. The upper ocular pile is long, abundant and very dark brown to almost black; the lower pile is more sparse and yellowish in color. The antennæ are black, the third segment a little more elongate and perhaps from one and one-third to one and one-half times as long as wide. Arista dark reddish. The facial tubercle is well developed but most abrupt below leaving the face gently concave above. *Thorax*: mesonotum dull opaque black with faint traces of a pair of brownish grey, submedial vittæ anteriorly; the transverse suture is conspicuously bordered anteriorly by a linear band of yellowish white pollen. Behind the transverse suture the mesonotum is somewhat more obscurely opaque black fading away into very dark greyish black pollen. The mesonotal pile is yellowish on the anterior half becoming chiefly blackish posteriorly; the postcallar pile is almost entirely black with two or three yellow hairs. Scutellum opaque orange or rusty brown, the lateral corners narrowly blackish. The scutellar pile is long, erect and yellow except for a group of black hairs in each basal corner. Squamæ dark brown. *Legs*: the femora are blackish becoming obscurely yellowish brown near the apex; the apex of the hind femora is subapically reddish. The hind femora are considerably thickened, the point of greatest thickness lies just beyond the middle. The anterior tibiæ are blackish except the very narrow base which is yellowish brown. Middle tibiæ light yellowish brown throughout. Hind tibiæ slightly flattened with very little pile, the apex transverse, the base and apex light brownish red, the middle diffusely blackish but divided, except upon the narrow dorsal margin, by a conspicuous, light yellow triangle. Anterior tarsi blackish. The middle and hind tarsi upon the first three segments are brownish yellow but the medial margin of the hind basitarsi is dark brown; remaining segments of these tarsi dark brown. *Wings*: quite hyaline with a strong stigmal cross vein. *Abdo-*

men: black and largely shining, the first segment is chiefly opaque grey, the second is opaque black on the anterior and posterior margins and these fascia are joined in the middle. Third segment with a moderately large, opaque, black triangle resting on the base of the segment in the middle and connected to a wide, black, posterior fascia which occupies fully one half the length of the segment. Fourth segment with a minute, basal, medial triangle narrowly connected to the wide, black, posterior fascia. Hypopygium entirely shining. Posterior margins of second, third and fourth segments quite narrowly brownish yellow.

Holotype: male, Nova Teutonia, collected by Fritz Plaumann. Jan. to April, 1948.

Mallota intermedia n. sp.

An aberrant species covered with light reddish brown pile upon the thorax and abdomen. Abdomen shining black, slightly metallic. Mesonotum brownish orange pollinose with obscure darker vittæ. Length 12 mm.

Female. *Head*: the face, cheeks and front are shining black, the face has a band of sparse, greyish white pile rather narrowly encircling the low tubercle and then proceeding upward to the antennæ. There is a narrow, wedge-shaped triangle of similar pubescence proceeding from the eye margin opposite the antennæ towards the base of the antennæ. The lower eye margins are also bordered narrowly with similar pollen, which does not extend upward upon the front. However, most of the frontal eye margins are narrowly bordered with brownish yellow pollen and the upper third of the front is broadly dark brown pollinose; the lower part of the front is shining black and the vertex is shining black. The pile of the face is long, rather abundant and white. The frontal pile is long and black and white intermixed with a few yellow hairs along the eye margins and in front of the ocelli. The occipital pile is yellowish above with a few black hairs anteriorly along the eye margin. The occipital pile becomes almost white ventrally. The first

and second antennal segments are black, the third very dark brown with reddish base. The arista is slender, bare and yellowish brown with white apex. The third antennal segment is short oval. The eyes are rather thickly covered with shining yellowish white pile. *Thorax*: the mesonotum and humeri are black, feebly shining, heavily obscured with an orange brown pollen. There is a pair of submedial, rather wide, definite but indistinct, blackish vittæ which run about three-fourths the length of the mesonotum; there is also a large spot anterior to the transverse suture and another wedge-shaped spot posterior to the transverse suture. These spots and vittæ are also overlaid with brown pollen and they are only visible at certain angles. The scutellum is translucent, brownish orange with light brownish orange pile. The mesonotal pile is similar in color but seems to have less reddish tint and there are numerous fine black hairs interspersed upon the posterior half of the mesonotum. Pleura black, thinly yellowish pubescent on the posterior border of the mesopleura, the sternopleura and the anterior half of the hypopleura and all of the metapleura. Pleural pile orange above, nearly white below. Squamæ yellowish brown, the halteres yellow with brown stalk. *Legs*: black, the tarsal segments narrowly reddish brown in the middle of the apex. The hind femora are only moderately thickened, are long yellow pilose medially and dorsally with a few reddish hairs along the middle of the lateral surface and with black pile or bristles ventrally on the apical half. The hind tibiæ are arcuate and flattened; they are black pilose on the apical half, medially, ventrally and dorsally but yellow pilose throughout the entire length laterally. The pile of the anterior femora and tibiæ is almost entirely black but is narrowly yellow along the anterior margin of each and posteriorly along the basal half of the femora. The middle tarsi are chiefly reddish brown with diffuse, central blackish areas on these tarsi dorsally. *Wings*: distinctly tinged with yellowish or reddish brown over the middle of the wing, more dilutely in the costal cell

and throughout the entire marginal cell, subcostal cell and all of the submarginal cell. The stigmal cross vein is distinct and well formed. The marginal cell is widely open. *Abdomen*: black with a distinct metallic appearance ranging from brassy for the most part to patches of bluish or coppery color. The pile of the first segment is pale yellow; on the remainder of the abdomen the pile is long and thick and light reddish brown, and the ground color is not obscured. Along the lateral margins of the third and fourth segments the pile is pale yellow but along the lateral margin of the second segment and more widely towards the base there are numerous long black hairs and a few long black hairs on the lateral margin of the fifth segment. Sternites shining black with very long pale yellow hair.

Holotype: female, F. Sinchono District, Huanuco, Peru, Aug. 20, 1947, Jose Schunke.

Meromacrus matilda n. sp.

A dull black species with reduced quantity of yellow tomentum. Related to *brunneus* Hull, it is a smaller species and the anterior diagonal band of tomentum upon the thorax ends at the inner end of the humeri and the sutural band of similar tomentum extends the length of the suture. Length 10–11 mm.

Female. *Head*: face and cheeks black, the former with a wide band of pale yellowish white or grey pubescence which extends across beneath the antennæ. The pile of the face is pale yellow and extends together with the pubescence narrowly up the sides of the front. The front is black, shining on the lower half with extensive brown pollen across the upper half. The vertex is black, its pile and that of the front black except along the eye margins where the frontal pile is yellow. The antennæ are black; the third brown becoming paler apically, and is somewhat thickened. The eyes are bare, the occiput conspicuously covered with pale, creamy yellow tomentum extending to the vertex. *Thorax*: the mesonotum is black; there is a not very conspicuous, moderately wide band of pale yellow tomentum placed diagonally forward

to the anterior margin of the mesonotum. The transverse suture is bordered by a complete band of similar tomentum from its medial end to the edge of the mesopleura. There is a similar band, rather narrow just before the scutellum including the posterior border of the postcalli. This band is not wider in the middle. On the anterior half of the mesonotum there is a rather wide but not conspicuous, grey, medial, pollinose vittæ. It is bordered on either side by a faint but wider blackish stripe with faint, brown pollen and outside of these sub-medial vittæ there are large, triangular areas of a faint but still lighter pollen. The remaining lateral area of the mesonotum, the notopleura excluded, are dull, dead black. The pleura are black with pale yellowish grey pollen on the posterior border of the mesopleura. The pile of the pleura is yellowish white and not very long. Scutellum black becoming obscurely dark brown on the posterior third of the middle only. The scutellar pile is black and rather sparse. Squamæ subtranslucent greyish brown with narrow black border and brownish yellow fringe. Halteres orange. *Legs*: black with the ventral apical half of the hind femora very dark reddish brown; this reddish color includes the whole of the extreme apex of the hind femora. The hind tibiæ are very dark reddish brown throughout and while the anterior and middle tarsi are nearly or quite black, the hind tarsi are very dark brown. *Wings*: the entire anterior margin of the wings including the costal, subcostal cells and the stigmal areas are rather uniformly reddish brown. This color includes all of the submarginal cell, except the loop, and it extends into the upper basal corners of the first posterior cell, into nearly all of the first basal cell above the vena spuria, except the outer lower corners, and it includes the posterior basal half of the first basal cell and more dilutely the basal half of the second basal cell. *Abdomen*: entirely black with a thin, inconspicuous band of sparse, appressed, yellow tomentum in the middle of the posterior border of the first segment. The pile of the second segment is entirely black setate and appressed except upon the lateral margin and the an-

terior corners. Third segment appressed, black pilose except the lateral margins and except for an inconspicuous row of appressed yellow hairs on the extreme base of the margin. These yellow hairs are not tomentose. Fourth segment chiefly black pilose but an oblique view shows scattered, appressed, yellow hairs among the black ones. Fifth segment with sparse yellow hairs. The yellow pile upon the lateral margins of all of the segments is comparatively short and inconspicuous.

Holotype: female, Pucallpa, Peru, Nov. 8, 1947, Jose Schunke.

Meromacrus villosa n. sp.

A trim, black and yellow species, rather similar to *anna* Curran. Length 12 mm.

Male. *Head*: face and cheeks black, the cheeks with a broad band of pale yellow pubescence in which however there is a peculiar dark spot best viewed from the side. This pollen also extends beneath the antennæ. The pile of the face is pale yellow together with the pollen extending upon the sides of the front. Middle of front dully shining black with linear, medial depression; the frontal pile is entirely yellow except for one or two black hairs. The antennæ are entirely black; second segment longer than the first, the third elongate oval, gently arched dorsomedially but not truncate. The arista is but little thickened, is brownish basally, becoming pale at the immediate tip. The vertex is shining black with pale pollen in front of the ocelli, short black pile between the ocelli and yellow pile behind. The occiput has pale yellow tomentum which extends up to the vertex. The eyes are bare and narrowly touching. *Thorax*: mesonotum dull deep black with a fine, narrow, greyish white line of pollen medially which runs only a short distance beyond the transverse suture. There is a band of rather wide, thick, well developed, pale, creamy yellow tomentum running inside the humeri directly across the notopleura almost to the wing base and anteriorly it runs diagonally forward towards but not to the midline where it ends in a sharp medial point. The posterior margin

of this band is straight. There is a minute, narrow patch of similarly colored tomentum on the medial half of the transverse suture separated from the diagonal band by a distance equal to its own length. In an oblique light the anterior diagonal yellow band is bordered by a wide, extensive, jet black, opaque stripe which occupies the full width between this diagonal band and the slender, medial sutural band. There is a similar band of creamy yellow tomentum just in front of the suture covering the posterior ends of the postcalli and expanded medially but gradually until it is about twice as thick as laterally. The scutellum is deep black with short, dense, black pile and a few longer pale hairs. The extreme posterior margin of the scutellum is yellowish brown but this can scarcely be seen from above. Pleura black, the posterior margin of the mesopleura and all of the remaining pleura except the posteroventral half of the hypopleura thinly yellowish white pollinose. There is a vertical middle band of only moderately long but thick white pile on the pleura. Squamæ smoky brown in color with nearly white fringe and dark brown border. Halteres orange. *Legs*: all of the femora are black to the apex except the hind femora. On the hind femora the ventral apical third, half way up the sides, and at the extreme apex, is yellowish brown; this color diffusely merges into the black of the remainder. The anterior and middle tibiæ and their tarsi are entirely black. The hind tibiæ are black except upon the basal ventral half. The hind tarsi are black. Coxæ and the lower and basal portions of the hind femora with long, thick, crinkly pile, pale yellow except in the middle of the femora where it is brownish. The ventral apical third of the hind femora also is thickly beset with short, fine, black bristles. Pile of the hind tibiæ and their tarsi pale yellow except that in the middle of the hind tibiæ ventrally the yellow is mixed with considerable long, dark brown pile. *Wings*: mostly hyaline. The subcostal cell proximal to the stigmal cross vein, the basal half of the marginal cell and all of the submarginal cell, except the loop, are pale smoky brown in color. The anterior margin of the second longitudinal vein is nar-

rowly brownish. The greater part of the outer half of the marginal cell and all of the stigmal portion of the costal cell, except the apex, and all of the costal cell, are hyaline as is the remainder of the wing. There is some suggestion of two tones in the colored portion of the wing as the posterior margin of the second longitudinal vein seems to be slightly more yellowish and the area behind more blackish. *Abdomen*: dull black with prominent bands of pale creamy yellow tomentum as follows: the posterior margin of the first segment except the sides, the entire anterior margin of the third segment and fourth segment. The pile of the second segment is entirely dense, short, black setate except that the lateral margins are narrowly fringed with conspicuous, pale, brassy yellow pile. The third segment is entirely brassy yellow pilose although in some lights it appears to be blackish. The margin of this segment is likewise tinged with yellow pile. Fourth segment with longer and therefore more conspicuous brassy pile, subappressed throughout the segment except for the basal tomentum. Hypopygium thickly pale yellow pollinose with long, scattered, golden pile.

Holotype: male, Pucallpa, Peru, Dec. 8, 1947, Jose Schunke.

***Meromacrus flavolinea* n. sp.**

A large black species in which the femora and coxæ are long pilose. Related to *brunneus* Hull. Length 14 mm.

Male. *Head*: face and cheeks shining black, the face with a broad stripe of pale yellow pubescence running from eye margin to the epistoma and continued beneath the antennæ and more narrowly up the sides of the front. The greater part of the front is shining black, becoming deep reddish black immediately in front of the antennæ. The pile of the face is pale yellow and that of the front of the same color with four or five black hairs intermixed. The vertex is black with black pile except in front of the anterior ocellus. The eyes are bare, touching for a short distance; the occiput is black with yellow tomentum ex-

tending up to the vertical triangle. The first and second segments of the antennæ are black; the third is black except at the extreme base which is slightly reddish; second segment longer than the first; the third segment is distinctly, obliquely truncate dorsoapically, with a single basal pore laterally and another medially. The arista is brownish yellow basally, paler distally and somewhat thickened, except that the apex is quite fine. *Thorax*: mesonotum dull black with a distinct, medial, yellowish grey pollinose vitta which becomes more narrow and is almost evanescent as it reaches the scutellum. There is a diagonal band of yellow tomentum on the inner border of the humeri which does not extend to the lateral margin and which becomes wider medially. It is not clearly bordered by opaque black except in an oblique light. The transverse suture is bordered with yellow tomentum rather widely and evenly from its medial end past the notopleura to the extreme lateral margin and there is a prescutellar band uniform in width of thickness equal to the one upon the transverse suture. The scutellum is black basally becoming diffusely brown posteriorly, the pile abundant and of varying length and black except for a few pale hairs on the margin. The pleura are black with the whole sternopleura, the anterior half of the hypopleura and the posterior border of the mesopleura densely pale yellow pubescent or pollinose and with a thick, vertical, middle band of long, fine, pale yellow pile with crinkled ends. This long yellow pile is situated on the posterior part of the mesopleura, the pteropleura and the upper sternopleura. Squamæ brown with dark sepia brown border and fringe. Halteres orange yellow. *Legs*: the femora are black, the hind pair greatly thickened and becoming diffusely reddish brown upon the outer third. The entire ventral surfaces of these femora are also reddish. The anterior tibiæ are dark reddish brown becoming black anteriorly and their tarsi are nearly black. The middle tibiæ are entirely reddish brown, their tarsi dark reddish brown and the hind tibiæ and tarsi also entirely brownish red. The pile of the hind tibiæ is golden in color, the dorsal

pile of their tarsi black. The coxæ and femora are long, thickly bushy pilose; the pile is pale golden yellow but the hind femora ventrally and apically have a tuft of fine, long, black hair. *Wings*: anterior border of the wings dark brown, extending almost to the apex of the first posterior cell leaving the loop of this cell entirely clear. The costal cell and the basal portion of the stigmal area and also the subcostal cell are more yellowish. *Abdomen*: black, the first segment with a posterior band of yellow tomentum; the second is entirely black pilose upon the posterior half with golden yellow pile anteriorly and laterally. The third segment has a prominent, narrow, basal margin of yellow tomentum, the remainder of its pile short setate and black, except medially on the posterior margin where it becomes reddish. Fourth segment with a similar band of yellow, basal tomentum, the remainder of its pile entirely golden red. Pile of the hypopygium yellow, the entire hypopygium greyish yellow pollinose.

Holotype: male and one paratype male, Pucallpa, Peru, Dec. 11, 1947 and Feb. 5, 1948, Jose Schunke.

Quichuana nigra n. sp.

A rather large black species which is related to *bezzi* Ceresa. It clearly lacks brown color below the spurious vein. From *parisii* Ceresa it differs in the quite black tibiæ. Length about 12 mm.

Female. *Head*: the face is brownish black, the sides entirely pubescent without bare sublateral stripes. The tubercle and a short stripe above which reaches only to the bottom of the concavity are shining and bare. The facial pile is abundant and long and yellow. The front and upper part of the face are quite protuberant. The front is shining black with an obscure reddish line down the middle of the lower part; the frontal pile is abundant and except for two or three black hairs it is entirely brassy yellow but this pile nowhere obscures the ground color. Viewed from above there is an acute triangle of coarse yellow micropubescence on the upper part of the front a little way below the ocelli. This triangle is con-

fluent with the narrow and similarly pubescent eye margins. The pile on the anterior part of the raised ocellarium is black; upon the posterior portion it is yellow. The occipital pile is brassy yellow with some slender black hairs above lying anterior to the yellow ones. The ocular pile is slightly flattened, moderately abundant and brilliantly shining silvery with perhaps a faint yellowish cast. The first segment of the antenna is black, the second almost black; both are black pilose. The third segment is comparatively short compared to other species of this genus; it is distinctly wider basally and viewed from the outside this segment is about one and one-third times as long as its greatest width. The third segment is narrowly reddish basally but otherwise black; it has a large, medial, basal, ventral pore. The arista is light brownish yellow throughout; the apex quite fine. *Thorax*: mesonotum shining black with a pair of dull, rather well separated, brownish grey pollinose vittæ situated in the middle of the mesonotum which are distinct for only a short distance beyond the transverse suture. The humeri are a deep reddish brown with a large, rounded patch of dense, pale yellow pubescence upon the medial portion. This patch does not extend to the posterior part of the humeri. Between this patch of pubescence and the medial grey stripes there is an opaque black spot which fades out diffusely behind and which has a very short, diffuse, posterior extension bordering the grey vittæ and an equally obscure diffuse extension partially encircling the humeri. The scutellum and postcalli are very dark reddish brown and shining with short, erect yellow pile on each. The mesonotal pile is quite short and golden or brassy yellow but over the wing there is a wide dense patch of black setæ. The notopleura and a small spot behind the suture are covered with a dense tuft of curly yellow long pile. Pleura black with long curly yellow pile on the mesopleura and thick yellow pile and pubescence on the pteropleura, sternopleura and hypopleura. Squamæ nearly white with dark brown border and fringe. Halteres orange on both knob and stalk. *Legs*: the femora are black, the apices of the anterior

femora are yellowish brown, but those of the middle femora are darker and the hind pair are entirely black except at the acute basal union with the trochanters and a small yellow ventral apical spot. The pile of the femora is yellow with sharp black setæ ventrally upon the outer third of the hind pair. The hind femur is distinctly more enlarged and thickened than in most species of *Quichuana*. The anterior tibiæ are reddish brown, obscurely darker near the apex anteriorly and posteriorly. The middle tibiæ are similar. The hind tibiæ are unusually arcuate, quite flattened and nearly black from a lateral view; they are a little more reddish medially, their ventral margin black pilose, their medial pile yellow except apically where it becomes black or dark reddish brown. The anterior and middle tarsi are brownish black on the second, third and fourth segments, lighter on the remainder. All of the hind tarsi are quite black with black pile. *Wings*: with distinctly two shades of color in addition to the hyaline portion. The costal and first basal cell behind the spurious vein and the whole of the second basal cell are distinctly pale brownish yellow. The subcostal cell, marginal, all of the submarginal cell, except the loop, all of the first basal cell above the spurious vein and the antero-basal corners of the first posterior cell, are rather deep sepia brown. *Abdomen*: The first segment black and nearly opaque with only a few, posteriorly directed, fine, yellow hairs and an oval, medial patch of yellow pollen in the middle. There is yellow, laterally directed, matted hair only upon the sides and not entirely throughout the posterior half of the segment. The second segment is shining black with a distinct, rather large, nearly equilateral, rounded triangle of opaque black lying on the middle of the base of the segment and extending half the length of the segment. The pile of this segment is widely yellow upon the sides extending from the posterior corners diagonally but narrowly to the base of the segment in the midline, the remainder of the pile is black and also nearly erect. Third segment shining black with a narrow, basal band of brassy yellow pile of nearly uniform width but expanding close to the lateral margins to include the

whole lateral margin. Fourth segment similarly colored and pilose, the yellow pile expanding gradually immediately from the middle of the segment and running diagonally to the postero-lateral corner. The pile of all three of these segments, second, third and fourth, is thick and abundant but short. Pile of fifth segment scarcely longer, black down the middle narrowly and upon the posterior margin but widely yellow upon the remainder.

Holotype: female, Pucallpa, Peru, Feb. 5th, 1947; Jose Schunke.

Quichuana ursula n. sp.

This is a black species which traces to *picadoi* Knab from which it is immediately distinguished by the black hind tibiae and the dark brown anterior ones. Length 8 mm.

Male. *Head*: face yellowish white pubescent with brassy yellow pile and an indistinct, nearly bare sublateral stripe in addition to the shining medial stripe over the face. The front is shining black with a distinct tubercular swelling at the upper part of the front and a very slight, rounded elevation subapically below over which there is a medial crease. The frontal pile is quite long and sparse and chiefly black with a few yellow hairs along the sides and a thin line of yellow pubescence along the eye margins. The front and the upper part of the face are but slightly projecting and the facial concavity very low. The occiput is black with black pile in front and black and yellow pile behind; the yellow pile is more abundant. Extending throughout upon the occiput there is an anterior fringe of black hairs which is quite long upon the upper third of the occiput. The minute triangle in front of the ocelli is yellow pubescent. The antennæ are comparatively short; the third segment is at least one and a half times as long as wide when viewed laterally, perhaps a little longer; its basal margin is reddish and the remainder black; the arista is light brownish red with fine apex; the first two segments are black with black pile. The eyes have moderately thick bright shining yellowish white pile. *Thorax*: mesonotum dully shining black with

a pair of brownish grey, well separated, submedial vittæ extending a short distance behind the transverse suture. The scutellum is almost black and might easily be mistaken for black. There is an elongate oval, posteriorly acute spot of dense, pale yellow pubescence inside of the black humeri and between this spot and the submedial vittæ there is a quite obscure, opaque black area which is not easily seen except from the rear; this opaque area extends obscurely for a short distance posteriorward and also sends an equally obscure band laterally behind the humeri. This pattern is quite distinct. The pile of the mesonotum is brassy yellow, abundant, longer than in *nigra*, still longer before the scutellum and longer upon the scutellum. There is a distinct, thick, wide patch of black setæ above the base of the wing and there is a patch of long, crinkled yellow tomentum upon the notopleura immediately behind it and down the posterior margin of the mesopleura. The sternopleura and pteropleura are yellow pilose and together with the hypopleura are thickly, densely pale yellow pubescent. The squamæ are pale brownish white with the posterior third blackish; their border is black with a pale yellow fringe. Halteres orange. *Legs*: femora quite black, the anterior and middle pair obscurely brown at the apex, the hind pair with a small yellowish spot ventrally near the apex. The hind pair are moderately thickened with yellow pile but short, stout black setæ ventrally upon the apical third. The anterior and middle tibiæ are very dark reddish brown throughout; the hind tibiæ are only slightly arcuate, moderately flattened and quite black, their ventral, dorsal and lateral pile black; their medial pile is pale yellow, becoming brownish red at the apex. The anterior tarsi are uniformly dark reddish brown and this is true of the middle tarsi which are perhaps only a very little paler on the first segment. The hind tarsi are very dark brownish black with black pile above and dark reddish brown pile below. *Wings*: The costal cell is perhaps faintly yellow throughout. The whole of the subcostal cell, the marginal cell and all of the submarginal cell except the loop are dark brown; the brown color extends on either side of the anterior cross vein to fill the upper basal angle of the first

posterior cell and the upper outer angle of the first basal cell and also connects with the central node of the spurious vein just below the base of the marginal cell, the remainder of these cells as well as the remainder of the wing hyaline. *Abdomen*: first segment black with sparse yellow pile throughout upon the posterior border which is tufted and matted but not conspicuously; it has a few hairs directed posteriorly in the middle. The second segment is dully shining black with a large, diffuse margined, opaque black, basal triangle which extends from close to the antero-basal corners to nearly two-thirds the length of the segment. The basal pile of the second segment is rather long, erect and yellow even on the basal triangles but near the middle of the segment it becomes black and the whole posterior margin of the segment is rather long, fine, erect black pilose except that there is none upon the lateral margins. The third segment has similar pile only a little shorter across the base of the segment which extends more or less diagonally down to include the posterior corners; the remainder of the pile is black, erect and scarcely shorter. On the fourth segment the pile is erect and yellow but sparse on the basal half; it becomes entirely black and suberect upon a large posterior triangular area of the segment which also excludes the lateral margins. Hypopygium quite shining and quite black with long fine yellow pile.

Holotype: male, Pucallpa, Peru; Dec. 4, 1947; Jose Schunke.

I would consider this to be the male of *nigra* because of its black color and similarly obscure thoracic pattern if there were not so many differences. The front is less protuberant, the antennæ slightly longer, the frontal pile predominantly black. There are semi-bare sublateral facial stripes and the hind femora of the male is slightly but distinctly less thick than in *nigra* which is a female; the hind tibiæ are much less arcuate, the squamæ have wide blackish borders, the scutellum is more blackish, the pile of the mesonotum and scutellum much longer and there are some differences upon the pattern of brown upon the wing besides still other differences.



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