

NOTES ON FABRICIELLA WITH DESCRIPTIONS OF FIVE NEW SPECIES (TACHINIDAE, DIPTERA).¹

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The new species described below are all assigned to *Fabriciella*, but it should be stated that the first four listed are closely allied to *Echinomya palpalis* Coquillett, which Townsend has designated the type species of *Metopotachina* (Proc. Biol. Soc. Wash., XXVIII, 1915, p. 21). *Palpalis*, known only in the single type specimen, is smaller and more slender in build than the genotype of *Fabriciella* (*Musca ferox* Panzer); it differs further in having a wider, more prominent front, smaller palpi and bare propleura. These items may appear distinctive if restricted to the above mentioned species, but their value in generic diagnoses becomes evanescent with the discovery of intermediate or connectant forms. The female sex of *palpalis* and most forms characterized herein is not known; until distinctive characters, common to both sexes, are found there appears little need for the multiplication of genera here.

All nearctic species of *Fabriciella*, with the exception of *palpalis*, have the propleura haired or setose. However, the degree of propleural vestiture is subject to considerable variation and sometimes may be reduced to a few small inconspicuous hairs. The distinction between this condition, as exemplified by *intermedia*, and the bare propleura in *palpalis* is hardly a character of generic significance, to say nothing of tribal importance assigned it by Townsend. In fact, it cannot be stated with certainty, from the one available specimen of *palpalis*, that the propleura are normally without any vestiture. A final decision regarding this question must await the accumulation of additional material.

Throughout the genus *Fabriciella* the male genitalia are strikingly uniform in structure suggesting a close relationship of the forms included. The principal differences lie in the male forceps, which have become modified in shape or structure to an extent distinctive for the species. The flat triangular forceps in the European *F. ferox* (genotype) are closely approximated in the nearctic species *F. florum* Walker, (syn. *Larvaevoropsis dakotensis* Townsend; *L. orientalis* Townsend). Those forms closely allied to *palpalis* all have the forceps slightly bowed or arched in profile, the broad flattened hind side has parallel margins, and the apex is

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broadly rounded about as in *F. lutzii* Curran. The latter, however, is a robust species which, like the genotype, has a narrower less prominent front.

Types of the new species described below are in the U. S. National Museum and my collection as specified under the descriptions.

Fabriciella pictilis, n. sp.

Male.—Head subquadrate, frontal profile strongly produced and distinctly longer than facial; cheek almost equal eye height; front broad, at vertex exceeding twice length of second antennal segment and widening gradually downward; sides of front and face including cheeks thinly pollinose on yellow ground color; parafrontals sparsely pale-haired to middle or above and narrowed upper part clothed with erect black hairs; median vitta reddish yellow, slightly widened upwards and exceeding parafrontal width at triangle; inner verticals moderately strong, suberect, outer ones smaller, divaricate; frontals about 12 in the main row, which diverges suddenly outward and only slightly downward from base of antennae, several irregularly spaced bristles outside of main row near middle; ocellars rather long, proclinate; face receding and moderately impressed, epistoma moderately produced; facial ridges bare except two bristly hairs next to vibrissae, which are set about on oral margin; parafacial much wider than clypeus, with an oblique shallow groove extending from near apex of second antennal segment to lower edge of eye, sparsely pale-haired above groove and bare below; antennae black, third segment ovate, hardly twice longer than wide, second segment broad at apex tapering toward base, about as long as third; arista bare, short, thickened nearly to tip, apical segment about three times length of second; proboscis moderately slender, labella small; palpi yellow, slender to tip and not much longer than second antennal segment; eyes rather small, bare; back of head somewhat bulged or convex, gray pollinose, clothed with pale hairs.

Thorax subshining black, scutellum reddish, thinly gray pollinose. Chaetotaxy: acrostichal 3,2 (none immediately behind suture); dorsocentral 3,4 (variable in size); intraalar 3; supraalar 3; postalar 3; humeral 6; posthumeral 3; notopleural 2; presutural 2; sternopleural 2,1; pteropleural 2 (about as large as sternopleurals); scutellum with 4 lateral

(basal and subapical pairs small), 1 long decussate apical and 2 pairs on disc set well behind middle; prosternum bare; propleura moderately black-haired; calypters opaque, whitish.

Abdomen subshining reddish yellow, with a broad black median vitta, which expands apically to include all of anal segment except basal margin at sides above, pollen thin or inconspicuous and without definite pattern; first segment without median marginals, second with one stout pair; third segment bearing a marginal row of about 10 and fourth strongly bristled on apical half above; sternites well exposed apically and clothed with long black hairs; genital segments not very large, blackish; forceps moderately arched in profile, rather short and broad, hind side flat becoming concave toward the broadly rounded apex; accessory plate exposed at base, terminating in a strongly bowed acute-tipped process, which is flattened on inner face and beset with minute pale hairs; fifth sternite rather prominent, narrowly divided to middle, lobes broadly emarginate on hind edge, black, clothed with fine to coarse black hairs.

Legs black, strongly bristled; hind tibiae not ciliate, showing an obscure reddish tinge in the ground color; claws and pulvilli hardly equal length of apical tarsal segment.

Wings gray hyaline tinged with yellow basally and on costal margin; first vein bare, third with 4 or 5 small hairs near base; fourth vein with a rectangular stumpless bend; first posterior cell narrowly open far before wing tip; hind cross vein bicurved, strongly oblique to fourth, which it joins hardly one-third the distance from bend to small cross vein; epaulet blackish; costal spine vestigial.

Length: 12 mm.

Holotype: Male, Wildhorse Canyon, Steens Mts., Oregon; 4270–6000 ft; July 5, 1927 (H. A. Scullen); in the U. S. National Museum.

The present specimen, lent for study by the U. S. National Museum, was labeled "*Metopotachina* n. sp.?" by the late Dr. J. M. Aldrich. The color pattern of the abdomen at once distinguishes the species from allied forms having the front similarly produced in the male sex.

***Fabriciella orbitalis*, n. sp.**

Male.—Similar to the preceding species except as follows:

Frontal rows not so sharply divergent at antennal base and descending slightly lower on parafacials; one moderately strong proclinate orbital present; basal segments of antennae reddish yellow, second segment slightly longer than third; sides of front and face more thickly haired. Thorax black, gray pollinose, four narrow dorsal vittae apparent before suture; sternopleural bristles variable, with 3 on one side and 4 on other; posthumeral 2; apical scutellars smaller but well developed; calypters tawny. Abdomen with the median black vitta confined on second segment; fifth sternite wholly reddish, with a wide V-shaped incision extending hardly to middle; genitalia blackish and about as in *pictilis*. Length, 13 mm.

Female.—One specimen provisionally included here differs from male in having the front somewhat less prominent, third antennal segment largely reddish, apical arisal segment less than twice length of second, and abdomen wholly reddish yellow. There are only 3 posterior dorsocentrals (four in male), but this does not appear conclusive in the one specimen, which lacks the anterior intraalar on one side and has the presutural acrostichals very irregularly spaced; sternopleurals 3. Genitalia retracted, apical margin of first segment fringed with inwardly directed or decussate black hairs. Length, 12 mm.

Holotype: Male, Kane Co., Utah, July (C. Lynn Hayward). Paratype: Female, labeled "Colo. July, 1924." Both in my collection.

Fabriciella intermedia, n. sp.

Male.—Differs from *pictilis* mainly as follows: front not so strongly produced, in profile the distance from base of antennae to anterior eye margin barely exceeds eye width; basal antennal segments brownish and pollinose, intermediate one rather thick and slightly infuscated on outer side; apical arisal segment hardly exceeding twice length of second; cheek about five-sixths eye height; parafacial slightly narrowed below but almost equal full width of facial depression. Thorax dusted with lusterless gray pollen, becoming denser on notum, which shows no defined vittae; sternopleural 2,2; scutellum with 2 strong and 1 weak lateral (latter near base), apical pair stout, not very long; propleura practically bare but a few small inconspicuous hairs present. Abdomen wholly reddish yellow with only a trace of black dorsal vitta on second segment, basal margin of latter and following segments with moderately dense

changeable whitish pollen; fifth sternite and genital segments reddish; accessory plate and forceps as described but the latter brownish on hind side except near apex and thickly clothed with concolorous pile. Apical tarsal segment reddish beyond middle, about equal length of claws and pulvilli. Hind cross vein reaching fourth nearly two-fifths distance from bend to small cross vein.

Length: 12 mm.

Holotype: Male, "San Jacinto Mts. Calif., F. Grinnell, Jr., J. M. Aldrich Collection," in the U. S. National Museum.

Fabriciella margella, n. sp.

Male.—Similar to the preceding species except as follows: Front more prominent in profile, the distance from base of antennae to anterior margin of eye obviously greater than eye width; second antennal segment slender, rather bright reddish yellow and contrasting sharply in color with dark third segment; proximal arisal segments subequal and apical one hardly one and one-half times longer than second; cheek nearly equal eye height. Thorax black, humeri pale reddish, this color extending backwards on sides of mesonotum to include posterior calli and scutellum; sternopleurals variable (2 on one side, 3 on other); propleura moderately clothed with fine pale hairs. Abdomen wholly reddish yellow, upper surface subshining without any pollen visible except in a flat rear view, which shows a thin whitish bloom on narrow bases of intermediate segments; genitalia as in *intermedia* but the forceps apparently shorter and mostly black-haired behind. Wing with a deeper tinge basally along costa; epaulet red.

Length: 11 mm.

Holotype: Male, Koehler, New Mexico, August 14, (H. F. Wickham), W. R. Walton, Collection, in the U. S. National Museum.

Fabriciella eurekana, n. sp.

A robust shining black species, which traces to *latifrons* or *rostrata* in available keys, but readily distinguished from both by the thicker pilose vestiture of the body; the front and parafacials are wider, more densely clothed with longer black hairs, and there are also differences in the genitalia.

Male.—Frontal width at vertex about one and two-thirds times length of second antennal segment; parafrontals with

yellowish gray pollen which becomes thinner near vertex, latter blackish but hardly shining; median vitta dark reddish brown, dusted with gray pollen, wider than parafrontal at triangle; frontals not very stout, row diverging on parafacial with three or four bristles beneath antennal base; verticals two pairs, inner strong and suberect; ocellars long, proclinate; antennae black with a reddish tinge on extreme apex of proximal segments, third nearly as wide as long and broadly rounded apically, second segment rather slender, about one and one-fourth times longer than third; arista bare, black, thickened well beyond middle, basal segments moderately elongate; clypeus and parafacials with satiny yellowish gray pollen, which extends on cheeks including lower half of posterior orbits; parafacials about one-half clypeal width; vibrissae strong, decussate at tips, set well above the prominent oral margin; facial ridges flattened, bristled only on lower extremity; cheek moderately clothed with intermixed pale and black hairs, about two-thirds eye height; eyes bare; proboscis moderately slender, labella smallish; palpi brown at base, slightly thickened beyond middle and paler or reddish yellow, almost equal length of haustellum; back of head with a dense ruff of pale yellowish white pile.

Thorax black, subshining, notum thickly clothed with fine erect black hairs; scutellum reddish, bearing 3 large laterals with 2 or 3 smaller bristles interspaced, apical strong, decussate; sternopleurals 4 to 7; irregular in size and spacing, dorso-centrals 4 behind suture, not very strong; prosternum bare; propleura pilose; calypters opaque; pale yellow.

Abdomen shining black, upper surface evenly clothed with a dense vestiture of soft black hairs, which become longer at sides and on venter; sternites exposed apically and beset with clusters of longer coarser hairs; first segment without median marginals, second with one stout pair (sometimes a weak second pair present); third segment bearing a marginal row of about 12 very stout bristles, anal segment also strongly bristled on apical third above; genital segments black, moderately large; forceps arched in profile, narrow behind with lateral margins about parallel to shortly before apex, thence tapering rather sharply to a pointed carinate beak; process of accessory plate sharp-tipped; fifth sternite black, rather prominent, with a moderately broad but shallow U-shaped apical cleft, lobes thickly black-haired.

Legs black, stout and strongly bristled; claws and pulvilli reddish yellow, nearly equal the combined length of last two tarsal segments.

Wings with a strong yellow tinge near base extending along costal margin to tip of first vein, the remainder gray hyaline; fourth vein with a sharp or angular bend, usually without a stump; third vein setose near base; hind cross vein reaching fourth about two-fifths the distance from bend to small cross vein; first posterior cell narrowly open far before extreme wing tip; epaulet black; costal spine vestigial.

Female.—Frontal width at vertex almost equal the combined length of last two antennal segments; two proclinate orbitals; cheek three-fourths eye height; palpi more distinctly thickened apically; abdomen not so thickly haired on venter; sternites with fewer but stronger bristles; genitalia retracted, apical margin of first segment fringed with closely set inwardly directed black hairs; claws and pulvilli about equal length of last tarsal segment, otherwise similar to male.

Length: Male, 14–16 mm.; female, 16 mm.

Holotype: Male, Eureka, California, May 6, 1935 (E. W. Baker). Allotype, female, same data as holotype. Paratypes: four males and one female, labeled "Calif. June 9," and one female, Nicola, B. C., August 28, 1923 (P. N. Vroom).

Fabriciella egula Reinhard

Fabriciella egula Reinhard, Can. Ent., LXX, 1938, pp. 9–10.

A long series, including both sexes, was taken in Skull Valley, Utah, August 31, 1938, by G. S. Knowlton and L. L. Hanson. The males agree with the type in possessing strong proclinate orbitals and in the genitalia, but show some variations in antennal characters. The third segment is uniformly broad but sometimes distinctly exceeds the length of the second, which is unusual in the present genus. The hitherto unknown female agrees closely with the male except for the usual sexual differences.



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