

## UNDESCRIBED SPECIES OF NEMATOCEROUS DIPTERA. PART V.\*

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The preceding part under this general title appeared in 1956 (Bul. Brooklyn Ent. Soc. 51: 75-81). At this time I am describing two new species of Ptychopteridae and two of Blepharoceridae, the types being preserved in my collection with the exception of one species in the Natural History Museum, Vienna.

### PTYCHOPTERIDAE

#### *Ptychoptera matongoensis*, n. sp.

Mesothorax yellow, the praescutum and scutal lobes patterned with opaque black in the form of confluent stripes; rostrum yellow; antennae with scape and pedicel yellow, flagellum brownish black; posterior part of head brilliant metallic blue; femora yellow, the tips narrowly dark brown; wings obscure yellow, the prearcular and costal regions more strongly so, wing tip and a narrow band over cord brown; abdominal tergites orange, the third and succeeding tergites with the posterior borders deep black, more extensive on the subterminal segments; ovipositor and genital segment orange.

*Female*: Length about 10-11 mm.; wing 10-11 mm.

Rostrum yellow; palpi obscure yellow, the outer segment more infuscated. Antennae with the scape and pedicel yellow, flagellum brownish black, the first segment somewhat paler; flagellar segments cylindrical, longer than the verticils. Front and antennal fossae orange-yellow, the posterior part of head brilliant shiny metallic blue.

Pronotum yellow. Mesonotal praescutum with anterior end and lateral borders orange, the remainder of disk with a central opaque blackened area, representing the usual stripes, crossing the suture and including the scutal lobes where there are two unequal areas on each lobe; scutellum orange; postnotum and pleura light yellow. Halteres infuscated. Legs with all coxae and trochanters yellow; femora yellow, the tips narrowly dark brown, the amount subequal on all legs (1 mm. or less); tibiae and tarsi dark brown. Wings obscure yellow, the prearcular and

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costal fields more strongly so; a conspicuous pale brown pattern including a narrow band at cord, narrowed behind and becoming obsolete at the bend of Cubitus; wing tip broadly pale brown, extending basad to beyond the forks, which, with the veins beyond them, are restrictedly seamed with still darker brown; posterior border as far basad as vein *2nd A* vaguely darkened; veins brown, more yellowed in the brightened fields. Venation: *Rs* short, oblique, meeting  $R_{2+3}$  at a sharp angle, basal section of  $R_{4+5}$  short to very short; radial fork much deeper than the medial one.

Abdominal tergites orange, the first and second segments restrictedly darkened medially, the third and succeeding tergites with posterior borders narrowly deep black, the amount increasing on the fifth and succeeding segments to form a ring; ovipositor and preceding segments orange.

*Habitat*: Tanganyika.

*Holotype*: ♀, Ugando, Matongo Highlands, 1500–1700 meters, September 28, 1938 (F. Zimmer). *Paratype*, ♀, Songea, 1100 meters, April 28–May 2, 1936 (H. Zerny).

Most similar to *Ptychoptera africana* Alexander, of southern Nigeria, differing conspicuously in the coloration of the mesonotum. I am indebted to Dr. Max Beier, Curator of the Entomological Collections of the Vienna Natural History Museum for the loan of the important Zerny materials from the Matongo Highlands.

### ***Bittacomorphella pacifica*, n. sp.**

Characters generally as in *Bittacomorphella sackenii*, differing especially in the structure of the male hypopygium.

*Male*: Length about 9–11.5 mm.; wing 7–9 mm.; antenna about 8.5–9 mm.

*Female*: Length about 9–9.5 mm.; wing 7.5–9 mm.

Antennae of male very long, approximately equal to the wing; scape pale brown, the larger pedicel yellow, flagellum black; flagellar segments very long-cylindrical. Mesonotal praescutum with four distinct black stripes; posterior sclerites of notum blackened, sparsely pruinose. Pleura heavily light gray pruinose, more darkened ventrally. Legs with the femora brownish yellow basally, passing into darker brown; tibiae brown, the tips darkened; basitarsi black, in cases with the extreme tips whitened; tarsal segments two and three snowy white; in *sackenii* the tips of basitarsi broadly white. Male hypopygium with the tergite large, posterior border shallowly emarginate, the lateral lobes small, ob-

tuse, with long setae. Tergal arms slightly more slender than in *sackenii*. Dististyle relatively slender, as compared with *sackenii*. Phallosome distinctive, the longer or terminal point a blackened blade, narrowed to the shallowly bidentate apex, the lower tooth microscopically denticulate, especially on the ventral edge. In *sackenii* the phallosome terminates in a slender spine, its tip acutely pointed.

*Habitat*: Washington, Oregon, northern California.

*Holotype*: ♂, Mount Rainier, Washington, 4,700 feet, July 21, 1940 (Henry Townes). *Paratopotypes*, ♂♀, 2,700 feet, July 8, 1940; 4,700 feet, July 21, 1940 (Henry Townes). *Paratypes*, ♂, Peavine Ridge, McMinnville, Oregon, June 5, 1945 (Kenneth Fender); ♂, Dayton, Oregon, September 19, 1946 (Kenneth Fender); 10 ♂♀, Castle Crags State Park, Shasta Co., California, 2,000 feet, July 6–8, 1953 (Alexander); 1 ♂, Castle Crags, in *Darlingtonia* bog, 3,000 feet, July 8, 1953 (Alexander).

The discovery of male specimens of *Bittacomorphella sackenii* (von Röder) shows that material from the more northern Pacific states hitherto determined as being this species actually are distinct and are described above. The third western Nearctic species of the genus, *B. fenderiana* Alexander, is even more distinct in the structure of the male hypopygium. The hypopygium of the present fly was figured earlier (Amer. Midl. Nat. 42: 273, fig. 2, as *sackenii*; 1949), in comparison with the same structure for *B. fenderiana*. As far as known at present, *B. sackenii* is more southern in its range, being restricted to the Sierra Nevada in California and Nevada, from the general vicinity of Lake Tahoe southward.

## BLEPHAROCERIDAE

### *Dioptopsis arizonica*, n. sp.

General coloration of thorax ochreous yellow, the praescutum anteriorly patterned with brownish black; antennae with scape and pedicel yellow, flagellum black; wings with a faint dusky tinge, the whitened netlike lines conspicuous; *Rs* relatively long, nearly twice *r-m*; basal section of *R<sub>5</sub>* very short to punctiform; male hypopygium with the tergal lobes broad, obtusely rounded at tips; outer dististyle very extensive, widened outwardly, the low basal lobe rounded, with abundant stout black setae.

*Male*: Length about 5 mm.; wing 6 mm.; antenna about 1.3 mm.

Rostrum and palpi yellowish brown. Antennae with scape and pedicel yellow, flagellum black. Head light gray, darker behind, including the ocellar tubercle; upper division of the eye very poorly differentiated from the major lower division, long and narrow, including about four or five rows of ommatidia, its width less than the diameter of the ocellar tubercle.

Thorax ochreous yellow, median area in front and the humeral triangles brownish black, heavily gray pruinose. Pleura yellow with gray pruinose areas. Legs with the coxae and trochanters yellow, remainder of legs brownish yellow, tarsi darker. Wings with a faint dusky tinge, the white netlike lines contrasting with the ground; veins pale brown. Venation:  $R_s$  relatively long, arcuated, nearly twice  $r-m$ ; basal section of  $R_5$  very short to punctiform; basal section of  $M_{1+2}$  unusually long, exceeding four-fifths  $M$ ; basal section of  $M_{3+4}$  long and sinuous.

Abdominal tergites light brown, variegated with paler. Male hypopygium with the tergal lobes broad, obtusely rounded at tips. Outer dististyle very extensive, widened outwardly, the outer angle obtusely rounded, the low basal lobe rounded, with abundant stout black setae. Phallosome with the gonapophyses longer and a little stouter than the penis filaments.

*Habitat*: Arizona (Pinal County).

*Holotype*: ♂, Workman Creek, Sierra Ancha, May 3, 1947 (H. and M. Townes).

The discovery of a Blepharocerid in Arizona south of the Colorado River was of unusual interest since it became the most southerly known species in the Rocky Mountain region, *Blepharocera zionensis* Alexander, of southern <sup>Utah</sup> Arizona, formerly holding this position. The nearest regional allies are *Dioptopsis markii* (Garrett) and *D. sequoiarum* (Alexander), which differ in size, details of venation, and where known, in the structure of the male hypopygium.

### ***Apistomyia anamalaiensis*, n. sp.**

Thoracic dorsum broadly orange in front, blackened behind; abdominal tergites with the median region almost continuously orange-yellow; eyes of male very large, the upper division more extensive than the lower.

*Male*: Length, excluding rostrum, about 5 mm.; wing 5 mm.; rostrum about 2 mm.

Rostrum black. Antennae 10-segmented, black throughout; first flagellar segment slightly longer than the second and third

combined; terminal segment oval, a little longer and stouter than the preceding two. Eyes very large, the upper division, comprised of larger ommatidia, more extensive than the lower one; eyes broadly contiguous, the very reduced posterior part of head black.

Pronotum black. Mesonotal praescutum and scutum orange, the scutal lobes and confluent areas on posterior lateral parts of the praescutum black; midline at scutum with narrow darkened extensions directed cephalad; scutellum buffy yellow, concolorous with the dorsopleural membrane; postnotum very reduced, black. Pleura chiefly light gray pruinose, leaving darker areas on the sternum and meron, possibly caused by rubbing. Halteres with base of stem light brown, the succeeding part yellowed, outer half black. Legs with the coxae pruinose; trochanters testaceous yellow; femora obscure yellow, the outer ends broadly darker; tibiae and tarsi dark brown. Wings with a weak dusky tinge, the secondary netlike venation still darker, conspicuous; veins brown, those of costal field still darker. All veins strongly developed throughout; in *trilineata*, bases of the veins pale to subatrophied. Anal angle of wing rounded and only moderately developed.

Abdominal tergites brownish black laterally, the sides of the more proximal segments gray pruinose; mid-dorsal region of tergites two to six, inclusive, conspicuously orange-yellow, almost continuous, being broken narrowly at the posterior borders of the segments; sternites with a basal gray triangular area, the sides of the posterior half broadly brownish black; hypopygium black.

*Habitat*: South India.

*Holotype*: ♂, Cinchona, Anamalai Hills, 3,500 feet, April 1957 (P. Susai Nathan).

*Apistomyia anamalaiensis* is quite distinct from *A. trilineata* Brunetti, of Assam and the eastern Himalayas, differing evidently in the coloration of the body and wings and in the structure of the eyes. The conspicuously brightened pattern of the thorax and abdomen of the present fly is noteworthy.