

Walker¹ erected the Family Grylloblattidae for his genus *Grylloblatta*, considering it as belonging to the Order Orthoptera. The following year Brues & Melander² raised this group to ordinal rank, calling it Grylloblattoidea. Later in the same year³ Dr. Crampton arrived at the same conclusion, but erected for it the new name Notoptera. In papers of later date Walker and Tillyard have followed Brues and Melander in their use of the ordinal name Grylloblattoidea. A continuance of this usage is scarcely to be recommended as the termination "oidea" is, or at least should be, used for the ending of superfamily names. Notoptera is therefore decidedly preferable and should be used as priority in ordinal names is not obligatory under prevailing codes of nomenclature.

The wide distribution of the Notoptera as indicated by the above Japanese record strongly substantiates the idea of the antiquity of the order. This record adds to the group its second genus and the first record of its occurrence outside of the North American Continent.

EXPLANATION OF PLATE 3.

- Fig. 1. *Galloisia nipponensis* new species. Adult male. Dorso-lateral view of end of abdomen.
 Fig. 2. *Galloisia nipponensis* new species. Adult male. Ventral view of right hind tarsus.
 Fig. 3. *Galloisia nipponensis* new species. Adult male. Lateral view of right hind tarsus.
 Fig. 4. *Grylloblatta campodeiformis* Walker. Male nymph. Ventral view of right hind tarsus.
 Fig. 5. *Grylloblatta campodeiformis* Walker. Male nymph. Lateral view of right hind tarsus.

NEW SPECIES OF MYTHICOMYIA AND ITS RELATIONSHIP, WITH A NEW GENUS (DIPTERA).

BY CHARLES T. GREENE, *U. S. Bureau of Entomology.*

The new genus described below is so closely related to the genus *Mythicomyia* that I think it would be almost impossible to separate the two in the immature stages. Therefore I think the pupal characters below would hold just as well for the genus *Mythicomyia*. As this latter genus has always been in an unsettled state in regard to its location, I am giving my opinion on the location from the adult characters plus those of the pupa.

¹1914, March. Can. Ent. vol. xlvii, pp. 93-99, pl. vi.

²1915, March. Keys to the families of North American Insects, pp. 1, 10, 13, pl. ii, fig. 19.

³1915, October. Ent. News, vol. xxvi, pp. 346, 347.

From the material before me it appears that the genus *Mythicomyia*, having a distinct discal cell and slender antennae, occurs only in the southwest; while the closely related genus *Pachyneres*, which has the discal cell confluent with the second basal cell, and the short thick antennae, occurs in the east and extreme northwest.

The genus *Mythicomyia* has been placed in three different families by various authors. These authors seem to think that this genus should be located directly after the genus *Hilarimorpha*. At first Williston¹ states that "Osten Sacken and Schiner locate the latter genus in the Leptidae. If that view is accepted, *Mythicomyia* should probably follow it." Williston² later figured *Mythicomyia* under the families Bombyliidae and Leptidae. It appears that he left it to some future worker to say in just which family the genus should be placed. Melander³ placed the genus in the Empididae. Coquillett⁴ also placed the genus in the Empididae. Cresson⁵ places this genus in the Empididae, stating that he thinks "Coquillett was correct" in placing it here. Aldrich and Kertész place both genera in the Leptidae.

From the characters of the pupa the genus should be placed more properly in the Bombyliidae than in the other families. All of the pupae of the Bombyliidae which I have studied have two, sharp, chitinous projections at the apex of the abdomen and numerous long, brownish-yellow hairs on the abdomen. Fig. 3. These hairs appear bristle-like but are not quite so stiff as the regular bristles of the Diptera.

In the Empididae the bristly hairs are not so prominent. The abdomen generally terminates into two, round, conical tubercles with a bristly hair at the apex of each. These tubercles are of the same texture as that of the abdomen of the pupa. The pupa of some of the Empididae do not have these tubercles, being simply rounded at the apex.

Mythicomyia californica new species.

This species runs to *Mythicomyia rileyi* in Cresson's table⁶ of females.

¹Williston, S. W., Manual of North American Diptera, 2d Edition, 1896, p. 73.

²Williston, S. W., Manual of North American Diptera, 3d Edition, 1908, p. 218.

³Melander, A. L., Transactions American Entomological Society, vol. 28, 1902, p. 336.

⁴Coquillett, D. W., Entomological News, vol. 4, 1894, p. 209.

⁵Cresson, E. T., Jr., Entomological News, vol. 26, 1915, p. 448.

⁶Cresson, E. T., Jr., Entomological News, vol. 26, 1915, p. 451.

Female.—Black and yellow species. Vertex and occiput black, shining. Front, face and oral margin lemon-yellow, subshining. Antennae dull black, third joint wider at base, about two and one-half times longer than width at base; style about half as long as third antennal joint. Thorax subshining on dorsum, black with two very narrow, pale yellow lines, broader at each end; humeri, pleurae, scutellum and halteres pale yellow. Abdomen pale yellow with a lateral and mid-dorsal row of dull black, triangular spots. Legs pale yellow, with the tips of the tibiae, apical third of the metatarsi and the four succeeding joints brownish-black. Wings with second longitudinal vein sinuous; anal cell closed in the border of the wing.

Length, 1.5 mm.

Described from one specimen taken at Mt. Lowe, California, July 3, 1917, J. M. Aldrich, collector.

Type.—Cat. No. 26539, U. S. N. M.

Mythicomymia minutum, new species.

Runs to *Mythicomymia pictipes* in the table of females.

Female.—Black and yellow species. Vertex, occiput, front and face dull black. Antennae black; third joint one and one-half times longer than wide; style nearly as long as third joint, with the apex pointed and oblique on one side. Thorax dull black on dorsum with a broad central stripe reaching to the neck; humeri pale yellow; this yellow extends to the suture; postalar callosity and a small area in front along the pleural-suture is pale yellow but this yellow does not reach forward to the suture. Scutellum brown; black in the central basal area. Halteres lemon-yellow, basal part of stems with brownish infuscation. Abdomen nearly as wide as long, first three segments and basal half of fourth segment brownish-black, remaining apical portion of abdomen pale yellow. Femora mostly brownish-black; coxae with brownish infuscation; trochanters, apices of femora, entire tibiae and metatarsi pale yellow; four remaining joints of all tarsi brownish-black. Wings with second longitudinal vein slightly sinuous and oblique; anal cell wide open.

Length, 1.5 mm.

Described from one specimen, Las Cruces, New Mexico, June 14, 1917, J. M. Aldrich, collector.

Type.—Cat. No. 26540, U. S. N. M.

PACHYNERES, new genus.

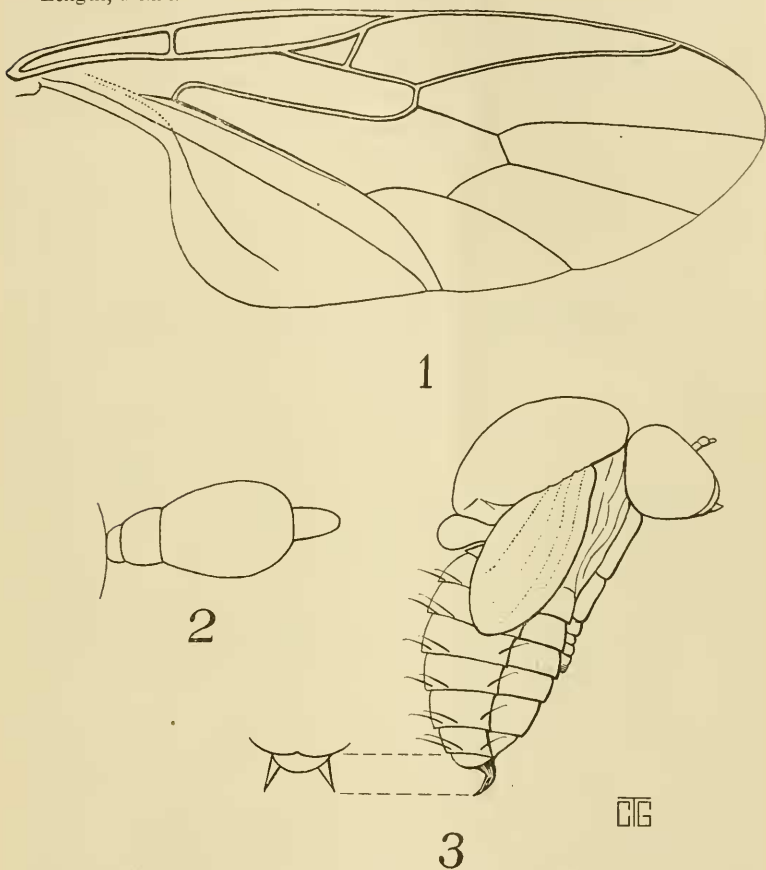
Resembles *Mythicomymia* but differs mainly in having the discal and second basal cell confluent; second vein short and straight. Antennae short and very broad; third joint only slightly longer than wide; style thimble-shaped, length about one and one-half times the diameter.

Pachyneres crassicornis, new species.

Female.—Shining black species with short black pubescence. Knobs of halteres, humeri, postalar callosities, a narrow dorso-pleural line pale lemon-yellow. Under surface of the knobs of the halteres and stems brownish-black. For further details of antennae see drawing (Fig. 2). Abdomen about one and one-half times as long as wide. The costal vein to a little beyond the tip of the

third, the first, second and third longitudinal veins entirely and the fourth vein to and including the small cross-vein, are quite heavy and dark brown in color; the other veins are thin and very pale yellow in color; anal cell wide open (Fig. 1).

Length, 2 mm.



1. Wing of *Pachyneres crassicornis* Greene. 2. Antenna. 3. Pupa, lateral view.

Type locality.—Washington, District of Columbia.

Collected in decaying tree of *Quercus velutina* in the grounds of the Soldiers Home, April 15, 1923, and reared by Miss E. E. Myers. Adult emerged April 20, 1923. Two females from Aweme, Manitoba, June 2, 1918, N. Criddle, Collector, labeled "Collected on strawberry blossoms." One specimen from Castle Rock, Pa., May 26, 1923, E. T. Cresson, Jr., collector. (Returned to the Academy of Natural Sciences, Philadelphia.)

Type.—Cat. No. 26538, U. S. N. M.

Pupa.—Pale yellow. Head distinct; antennal capsules prominent, with two distinct joints and a thimble-like projection at the apex; tip of proboscis projecting slightly. Thorax broad and humped prominently; wing pads distinct; scutellum distinct; leg capsules showing two long joints and four tarsal joints, the tip being annulated. Abdomen showing eight segments, the first and last rather small; segments two to seven showing two longitudinal double rows of brownish, bristle-like hairs slightly bent at their apex; segments four to seven each have a single bristle-like hair near the outer apical corner. At the apex of the abdomen, towards the ventral surface, are two prominent, brown, chitinous prongs or hooks, widely separated, turned upwards. For details see drawing (Fig. 3).

Length, 2 mm.

One specimen found in frass in a decaying tree of *Quercus velutina*.

A NEW GENUS AND SPECIES OF TRYPETIDAE INFESTING ASPARAGUS IN SOUTH AFRICA. (DIPTERA).

BY D. W. COQUILLET.

ZACERATA, new genus.

Distinguished by the unusually long antennae, which are almost twice as long as the face, slender and linear, the first joint wider than long, the second slightly longer than the third, arista bare, basal. Head about twice as high as long, face convex, slightly projecting forward at the oral margin, eyes oblong, about five times as high as width of cheek, three pairs of orbital bristles, the lowest pair on a line with insertion of antennae. Wings rather narrow, stigmal cell unusually short, second vein very sinuous, the third less so, discal cell greatly narrowed on its basal half, small crossvein at a point near two-thirds the length of the discal cell, lower apical angle of the anal cell rectangular, first vein and base of the third bristly, last sections of third and fourth veins subparallel.

Type.—The following species:

Zacerata asparagi, new species.

Black, the second antennal joint, arista and tarsi, yellow. Face polished, the sides thinly gray pruinose, front subopaque, seven spots in two transverse rows near the middle and a row of five along each eye, gray pruinose. Body somewhat polished, mesonotum marked with many gray pruinose lines, pleura thinly gray pruinose, the mesopleura covered with black dots except on its front edge, scutellum not distinctly swollen, bearing four bristles, abdomen thickly covered with black dots; ovipositor flattened, the basal joint nearly as long as the last two abdominal segments. Wings hyaline, the base to tip of first vein and from costa to fourth vein brown, basal half of second basal cell and whole of anal, brown; a large brown, three-pronged spot on outer half of wing, extending along the costa from slightly before the small crossvein to beyond apex of the fourth vein, sending a brown branch over the hind crossvein and another over the small crossvein crossing the discal cell and almost reaching the middle of the third posterior cell; the two brown regions are narrowly connected along the fourth vein.

Length 3.5 to 5 mm.

Two males and four females.