

NEW SPECIES OF MYCETOPHILIDAE

By R. S. Sherman

Mycomya mutabilis sp. nov.

Male. Length 4.25 m.m. Head, face, and antennae brownish, the basal joints of the last and the palpi yellow; intermediate antennal joints about twice as long as wide. Thorax brown with obscure darker brown or black vittae separated by grayish pollen. Humerus yellow. Scutellum and metanotum brown. Two strong scutellars in addition to smaller setae. Thoracic, scutellar, and abdominal setae brown. Abdomen brown, posterior and lateral margin slightly yellowish. Hypopygium yellow. Legs long and slender, yellow; fore metatarsus $1\frac{1}{10}$ times the tibia in length, setae of hind tibia slightly less than diameter of this member. Wings hyaline with grayish tinge; veins brown, subcosta ends in the costa opposite middle of cell R_1 , which is 2.5 times as long as wide; the subcostal cross-vein is proximad of the middle of this cell; the basal section of the radial sector and the R-M cross-vein are subequal; R_{4-5} ends at tip of wing; petiole of the media is equal to M_2 ; cubitus forks slightly distad of the middle of cell R_1 : the wing is 4.75 m.m. in length, which is 2.8 times as long as the fore metatarsus. Halteres yellow. Taken on Savary Island, B. C., April, 1917.

Differs from **M. maxima** in being smaller, darker color, two scutellars, lacking coxal spur, etc. It is nearer to **M. sigma** but differs in length of intermediate flagellar joints, color of thorax, color of wings, length of petiole of media as compared with M_2 ; forking of cubitus more distad of cross-vein and in greater length of wing as compared with length of fore metatarsus.

Platyura intermedia sp. nov.

Female. Length 3.5 m.m. Yellow. Antennae except the scape fuscous. Thorax yellow with traces of three pale confluent stripes. The base of each abdominal segment dark brown. Wings uniformly yellowish slightly tinged with cinereous in region of R_{2-3} , veins fuscous; subcostal vein ends in costa a little proximad of base of radial sector; R_{2-3} rather long and oblique in position; halteres yellow. Subcostal cross-vein slightly proximad of centre of subcosta; coalesced part of media about equal to the petiole. Anal vein produced to the margin. Fore metatarsus slightly shorter than tibia. Two tibial spurs on middle and hind tibiae. Savary Island, July 21, 1917.

Dziedzickia vernalis sp. nov.

Female. Length 5 m.m. Brown, the first two joints of the antennae, humeri, posterior margins of abdominal segments and the legs, yellow, the latter with brownish tarsi; antennae with third joint about twice its width in length; body opaque, the hairs and bristles reddish yellow, bristles of tibiae shorter than greatest diameter of latter; wings hyaline; subcostal vein terminates in R_1 near distal end of cell R_1 , this cell about

$1\frac{1}{2}$ times as long as wide. R₄₋₅ strongly bowed forward, peduncle of cell M₁ about twice as long as R-M cross-vein, cubitus, apparently detached, forks near middle of cell R. Fore metatarsus is about .8 as long as the tibia. Halteres yellow. Vancouver, B. C., 8:V:16.

Dziedzickia rutila sp. nov.

Male. Length 5.5 m.m. Yellow, head black, antennae, except the basal joints, fuscous, abdominal segments brown caudad, tarsi brownish, tibial spurs lighter yellow than the tibiae, which are dusky yellow; thorax yellow with reddish brown vittae and black hairs; abdominal setae black; scutellum yellow with black hairs; pleura tinged with brown; wings hyaline, subcostal vein terminates in R₁ slightly proximad of centre of cell R₁, this cell about $2\frac{1}{2}$ times as long as wide, R₄₋₅ moderately bowed, peduncle of cell M₁ about twice the length of the R-M cross-vein, cu₁ not detached, forks at the middle of basal cell R, fore metatarsus about $\frac{3}{4}$ as long as the tibia, anal vein does not reach the margin, halteres pale yellow. Vancouver, B. C., 3:XI:17.

Dziedzickia johannseni sp. nov.

Female. Length 4 m.m. Black, the first two joints of antennae, femora, tibial spurs and halteres, yellow; tibiae and tarsi yellowish brown shading to dark brown in tarsi; abdomen with faint indications of lighter colored marginal bands; thorax black, scutellum, pleurae and coxae brown; hairs reddish yellow; wings hyaline, subcostal vein terminates in R₁, exactly at distal extremity of small cell R₁, this cell about $1\frac{1}{2}$ times as long as wide, R₄₋₅ moderately bowed, peduncle of cell M₁ a little longer than twice the length of R-M cross-vein, cubitus forks at about two-thirds the length of basal cell R₁; fore metatarsus about two-thirds as long as the tibia; half of fore metatarsus swollen on under side, giving this joint a bowed appearance; under side of 2nd, 3rd and 4th tarsal joints evenly swollen, 5th joint slender. Savary Island, 10:IV:17.

Dziedzicka columbiana sp. nov.

Male. Length 4 m.m. Dark brown, the basal joints of antennae, humeri, coxae and femora, yellow; large yellow triangles on sides of 2nd and 3rd abdominal segments; hairs on thorax, scutellum and abdomen yellowish; joints of flagellum somewhat compressed, the third joint of antennae being only slightly longer than wide; wings hyaline, subcostal vein terminates in R₁, near the centre of cell R₁, this cell about $1\frac{1}{4}$ times as long as wide, R₄₋₅ moderately arched, peduncle of cell M₁ about $1\frac{1}{2}$ times the length of R-M cross-vein, cubitus forks distad of centre of basal cell R₁, anal vein weak and does not reach the border; fore metatarsus about four-fifths the tibia in length; halteres yellow. Vancouver, B. C., 22:V:17.

Dziedzickia occidentalis sp. nov.

Male. Length 5 m.m. Dark brown to black, basal joints of antennae front coxae, femora and stalk of halteres, yellow; hairs of

thorax and abdomen pale; antennal joints of flagellum elongate; wings hyaline, subcostal vein terminates in R_1 proximad of the centre of cell R_1 ; this cell is three times as long as wide, R_{4-5} strongly arched, peduncle of cell M_1 $2\frac{1}{4}$ times as long as R-M cross-vein, cubitus forks proximad of centre of basal cell R_1 anal vein strong but does not reach the margin. Knob of halteres brown, fore metatarsus about two-thirds as long as the tibia. Savary Island, 8:IV:17.

Rhymosia proluxa sp. nov.

Male. Length $5\frac{1}{2}$ m.m. Yellow, including the two basal joints of the flagellum, palpi and hypopygium; thorax with reddish brown vittae; tergites with triangular brown saddles. Setae of thorax and scutellum black. Hypopygium longer than last abdominal segment, black pilose. A black spot on hind femora at basal fourth. Legs slender, long; coxae and femora yellow, tibiae dusky yellow and tarsi fuscous. Tibial spurs black. Wings yellowish hyaline. Subcosta ends free; petiole of media slightly more than half as long as the R-M cross-vein; fork of cubitus far proximad of the proximal end of the cross-vein. Savary Island, 8:VII:17.

Rhymosia faceta sp. nov.

Male. Length 4 m.m. Yellow, including basal joints of flagellum, palpi and hypopygium. Head fuscous; thorax subfuscous on dorsum and pleurae; coxae, femora and tibiae yellow; tarsi fuscous. Abdomen with wide yellow fasciae on 2nd to 5th segments inclusive, cephalad. Wings hyaline with slight cinereous tinge along costal margin. Setae of thorax and scutellum black. Fore metatarsus subequal to tibia. Two scutellar setae. Subcosta ends in R_1 . Petiole of media about two-thirds as long as R-M cross-vein. Cubitus forks under proximal end of this cross-vein. Anal vein extends beyond branch of cubitus. Halteres yellow. Vancouver, B. C., 11:II:17.

Rhymosia seminigra sp. nov.

Male and Female. Length 6 m.m. Dark brown; head black; basal joints of antennae and palpi yellow; humeri yellow; dorsum of thorax dark velvety brown, with pale appressed hairs and black setae; scutellum and metanotum brown; two scutellar setae, black; abdomen dark brown, sixth segment wholly black, segments 2 to 5 with yellow longitudinal bands on the sclerites dorsad, rounded caudad, leaving the posterior margin of these segments fuscous; hypopygium large, yellow with black hairs; legs yellow, hind coxae with fuscous stripe, one basal coxal seta, hind femora darker apically, tibia and tarsi subfuscous to fuscous, fore metatarsus $1\frac{1}{4}$ length of tibia; apical half of wing cinereous, proximal half hyaline, subcosta ends in R_1 ; petiole of media and R-M cross-vein subequal; fork of cubitus under fork of media, anal vein ends under fork of cubitus. Three males and three females taken at Vancouver and Savary Island, March, April and October.

Rhymosia pectinata sp. nov.

Male. Length 4.5 m.m. Head fuscous, the scape and palpi yellow; antennae $1\frac{1}{2}$ times the length of thorax. Thorax dull yellow, dorsum and pleurae brownish, with indistinct darker brown vittae; scutellum and metanotum fuscous; hairs yellow, depressed, setae black; two scutellar setae. Segments 2 to 5 of abdomen with yellow fasciae, cephalad; these fasciae are widest ventrad; hypopygium yellow. Coxae and legs yellow, tarsi and tibial spurs brown; one posterior basal hind coxal seta; fore tarsal joints on under side serrate. Fore metatarsus slightly longer than tibia. Wing hyaline, subcosta ends in R_1 . Petiole of media two-thirds length of R-M cross-vein. Cubitus forks under proximal end of R-M cross-vein. Anal vein extends distad of fork of cubitus. Halteres yellow. Savary Island, 9:IV:17.

Rhymosia brevicornis sp. nov.

Male. Length 5.5 m.m. Head fuscous, the scape, and palpi yellow; antennae slightly shorter than length of thorax. Thorax dull yellow, dorsum of mesonotum and pleurae fuscous; scutellum and metanotum fuscous; hairs appressed, yellow, setae black; 4 scutellar setae; segments 2 to 5 of abdomen with brown saddles, broadest anteriorly, posterior margins and ventral stripe subfuscous, leaving well marked yellow triangles on sides of segments 3 and 4; segments 1 and 6 dark brown; hypopygium yellow, large, being twice length of segment 6. Legs and coxae yellow; tarsi fuscous; one basal coxal seta. Wings yellowish hyaline, subcosta short, ending apparently free though close to R_s . Petiole of M and R-M cross-vein subequal. Cubitus forks proximad of proximal end of R-M cross-vein; anal vein stout, ends slightly distad of fork of cubitus. Halteres yellow. Fore metatarsus slightly shorter than tibia. Vancouver, B. C., 28:IV:17.

Tetragoneura atra sp. nov.

Male. Length 4 m.m. Black, including knob of halteres and hypopygium; antennae black, including basal joints; palpi black; middle and hind coxae fuscous, front coxae and femora yellowish brown, tibiae brown, tarsi black; hairs on thorax and abdomen pale; wings grayish hyaline, the subcostal vein ends in R_1 at nearly two-thirds of distance between humeral cross-vein and base of the radial sector; cubitus detached but not attenuated, beginning at a point in line with the R-M cross-vein produced. Cell R_1 very little longer than wide, almost a perfect rhombus.

Female. Like the male, but scape of antennae and genitalia are yellow. Cu_1 slightly attenuated at proximal end. R_{2-3} wanting in one wing.

Described from two males and one female taken at Vancouver, May and June.

Tetragoneura marceda sp. nov.

Male. Length 3.5 m.m. Head black, base of antennae and palpi yellow, remainder of antennae dark brown; thorax, scutellum and abdomen brown, hypopygium yellowish; hairs on thorax and abdomen yellow or reddish brown; halteres, coxae and femora yellow, tibiae yellowish brown, tarsi dark brown; wings hyaline, subcostal vein ends in R_1 about midway between the humeral cross-vein and base of the radial sector; cubitus forks close to its base, cu_1 detached and attenuated at proximal end; cell R_1 scarcely as long as wide.

Twenty-nine males and six females taken at Savary Island and Vancouver, B. C., April and May. Of these specimens only seven males and two females have the rhomboidal cell complete in both wings; seven males and one female are zygomorphic, the vein R_{2-3} being absent in one wing; fifteen males and three females are destitute of vein R_{2-3} in both wings. In some specimens the cell R_1 is very short, vein R_{2-3} almost touching the base of radial sector.

Female. Like the male, but usually lighter in color, the humeri and genitalia being yellow.

Tetragoneura fallax sp. nov.

Male. Length 4.5 m.m. Head black, base of antennae and palpi yellow; remainder of antennae dark brown; thorax and abdomen dark brown; humeri, edge of scutellum and metanotum yellow; the metanotum more or less fuscous dorsally; the large hypopygium mostly dark brown, the interior parts mostly yellow; legs yellow changing to subfuscous and fuscous in tibiae and tarsi; setae and hairs yellow; halteres yellow; wing hyaline, veins strong, subcosta ends in R_1 about midway between humeral cross-vein and base of radial sector; cubitus forks slightly proximad of proximal end of R-M cross-vein, or directly under it; cu_1 not detached; length of cell R_1 about 1.5 times its width.

Female. Color usually more dilute; genitalia yellow.

In a series of forty specimens, thirteen males and twenty-seven females, taken at Savary Island and Vancouver in April, May and December, there is considerable variation in:

- (a) Relative position of end of subcosta.
- (b) Relative position of fork of cubitus.
- (c) Length of small cell.

Two males and four females have R_{2-3} wanting in one or both wings.

Tetragoneura arcuata sp. nov.

Male. Length 3 m.m. Head black, base of antennae and palpi yellow, remainder of antennae dark brown; thorax, scutellum, metanotum and abdomen dark brown, hypopygium largely brown; hairs on thorax and abdomen yellow; halteres yellow, the knob tipped with brown; legs yellow, middle and hind coxae brownish, tibiae and tarsi

shading from light to dark brown; wings hyaline, subcosta ends in R_1 about two-fifths of the distance between the humeral cross-vein and base of radial sector; cubitus forks about under distal end of subcosta, not detached; anterior veins much stronger than posterior; R_{4-5} strongly arched in proximal half, distal half being only gently curved; length of rhomboidal cell varies from 1.25 to 1.75 its width; base of radial sector and R_{2-3} slender.

Female. Resembles the male; genitalia yellow tipped with dark brown.

Described from a series of one male and four females taken during May and June in the vicinity of Vancouver.

THE LIFE HISTORY OF APATETICUS CROCATUS Uhl. (HEMIPTERA)

By W. Downes.

The species which forms the subject of the present paper is a large pentatomid bug which is fairly common in the neighbourhood of Victoria and a somewhat familiar object during the late summer and fall. It belongs to the class popularly called "stink bugs," a well-earned name by the way, and is one of the largest members of the Heteroptera in our local fauna.

Although, in common with the rest of the pentatomids, it has an unevitable reputation owing to the possession of repugnatorial glands which secrete the objectionable odour familiar to all who have attempted to handle them, nevertheless the species we are considering has good points which make it worthy of our interest and protection, for it is of considerable economic value, its food consisting to a very large extent of caterpillars, especially tent caterpillars, and larvae of the oak looper (*Ellopiia somniaria*), so that it may be classed among our useful insects.

Wherever caterpillars are numerous, these bugs will be found. Many of them take up their abode within the webs made by the tent caterpillars, where they find a plentiful food supply within easy reach. Others are found on the oak trees infested with "looper" caterpillars, but they are not entirely dependent on animal food by any means. In fact, a certain amount of vegetable food is essential for them, and during the first instar the little nymphs are entirely phytophagous and possibly the species may be able to subsist without much animal food.

The Egg. The egg is cylindrical with slightly convex sides, its height being about one-third greater than its diameter, somewhat barrel-shaped in fact. The top and bottom are convex and the cap, or lid, is surrounded by a fringe of short incurving spines. The eggs are smooth and shiny and in colour are brownish black with irregular oval areas of dull white on the sides. Around the rim is a narrow white band from which arises the chaplet of spines of the same colour, tipped with black.