

## TWO REMARKABLE NEW SPECIES OF DIPTERA.

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THE two species described below are of interest not only on account of their very large size, but also because they appear to be mimics of particular species of Hymenoptera. According to the collector, the flies are met with in the same places and at the same time as the Hymenopteron mentioned in each case, from which they are very difficult to distinguish when on the wing or in the net. The types of both species are in the Tring Museum, and I have to thank the Hon. Walter Rothschild for permitting me to describe them.

## PANTOPHTHALMIDAE.

## RHAPHIORHYNCHUS Wied.

1. *Rhaphiorhynchus rothschildi* sp. nov.

♂.—Length (2 specimens) 39 to 41·5 mm.; width of head 9 mm.; width of thorax at base of wings 9 mm.; greatest width of abdomen (second segment) 10·5 mm.; length of wing 37 to 38·6 mm.

*Narrow-bodied, elongate species, with subulate antennae in the ♂; head, body, and legs deep black, dorsum of thorax tinged with mummy-brown,\* with black longitudinal stripes; humeral calli dark brown, with a buff-coloured streak on upper side, or a buff-coloured spot above, close to apex; dorsum of abdomen with an elongate shining median spot or longitudinal streak on each segment; wings dark brown, extreme base black, veins (including costa), costal cells, proximal third or rather more of marginal cell, first basal cell except lower and distal borders, and an irregular area sometimes extending from near base, across alula, into base of axillary cell, sometimes including proximal half or less of second basal and anal cells, ochraceous rufous.*

*Head:* facial "beak" large and thick, dull velvety clove-brown, except extreme tip, which is shining; jowls clothed with fine black hair; eyes a hair's-breadth apart on front, facets in upper half larger than those in lower half, but difference in size not very noticeable, and no sharp line of demarcation; antennae clove-brown, distal extremity of style yellow, first and second joints and base of third joint clothed above and below with stiff black hairs, second and following annuli of elongate third joint with a few minute hairs above and below, style also with a few short hairs, and with a longer recumbent hair above and below, just before middle; palpi black, stout, curving outwards, densely clothed with stiff black hair. *Thorax* dull, clothed with short and fine black hair; dorsum with three approximate and complete longitudinal black stripes, broader in front and converging posteriorly. *Abdomen* tapering from base of second segment to distal extremity, clothed with short and fine black hair; dorsum, except elongate median spots, dull, its sides turned downwards, not sharp; a large, roughly semicircular, white spot on each side of first segment, close to distal angle, and a small whitish or yellowish fleck in each

\* For names and illustrations of colours, see Ridgway, *A Nomenclature of Colors for Naturalists* (Boston: Little, Brown, & Company, 1886).



distal angle of third segment ; median portion of ventral surface of each segment shining. *Wings* : first and second costal cells broad, costa being conspicuously bent upwards above humeral transverse vein ; extreme tip of wing and axillary cell except extreme base dark brown, remaining cells within dark brown area usually with their centres lighter (more or less ochraceous-rufous) ; second posterior cell wide open at tip. *Halteres* ochraceous-buff. *Legs* entirely clothed with black hair, which, though generally inconspicuous and short, is thick and longer on the posterior tibiae, giving these a furry appearance ; all femora shining ; hind legs very long, hind femora with a large and conspicuous tooth beneath, at commencement of distal third, and with a small and inconspicuous terminal spine ; first joint of hind tarsi with longer hair above.

Bolivia and Ecuador, S. America : type from Buenavista, Bolivia (*J. Steinbach*) ; a second specimen from Ecuador (*Buckley*) is in the British Museum (Natural History).

This species, which resembles *Pepsis elevata* Fabr., cannot, owing to the sombre coloration of the body, possibly be confused either with *Rhaphiorhynchus planiventris* Wied. (the only species of the genus already described), or with an undescribed species from Brazil represented by two ♀ specimens in the British Museum (Natural History), since in both of the latter species the abdomen, except the lateral margins, is orange-rufous. Although at first sight the unusual shape of the body, in conjunction with the remarkable coloration, might be regarded as indicating the advisability of founding a new genus for the reception of the species described above, careful consideration of the structural characters shows that there is nothing to warrant the adoption of such a course.

## MYDAIDAE.

### MYDAS Fabr.

#### 2. *Mydas praegrandis* sp. nov.

♀.—Length (1 specimen) 49 mm. ; width of head 8.5 mm. ; length of antenna 15 mm. ; greatest width of abdomen (hind margin of fifth segment) 10.75 mm. ; length of wing 44.6 mm.

*Head, body, and legs deep black ; third and fourth joints of antennae burnt-sienna-coloured, expanded portion of fourth joint ferruginous ; proximal three-fourths of wing, except hind border, brownish black, opaque, distal fourth of wing and hind border of irregular width smoky-brown, with a strong violaceous tinge, and transparent.*

*Head* : mystax, like hairs on remainder of head, entirely black ; proboscis and first two joints of antennae black, first and second joints of antennae clothed with black hair. *Thorax* : dorsum almost bare, with an elongate lyrate mark of a deeper black than ground-colour, extending from front margin to scutellum, and with a narrow median longitudinal stripe ; pleurae thinly clothed with black hair. *Abdomen* : dorsum clothed above with short appressed black hair, longer and more conspicuous on first segment ; basal angles each with a tuft of shining white or yellowish white hair, of greater length. *Wings* : violaceous tinge of tip and hind border especially conspicuous when wings are viewed at certain angles, or in certain lights ; alula deep brownish black. *Squamae* with a deep brownish black fringe. *Halteres* brownish black. *Legs* entirely clothed with black hair ;



hind tibiae with a short spur at tip; claws black, faintly tinged in middle with chestnut.

Buenavista, Bolivia, S. America (*J. Steinbach*); resembles *Pepsis heros* Fabr.

I have little hesitation in regarding as conspecific with the ♀ described above two ♂ specimens from Brazil, in the National Collection; assuming this view to be correct, the ♂ of *Mydas praegrandis* may be characterised as follows:—

♂.—Length (2 specimens) 47·5 to 49 mm.; width of head 8 mm.; length of antenna 13 mm.; greatest width of abdomen (across first segment) 9·5 mm.; length of wing 40 mm.

*Colour of head, body, and legs as in ♀; colour of antennae as in ♀, though third and fourth joints may be darker (chestnut); dark area in wing of same shape and extent as in ♀, but much lighter in colour, mummy-brown, with more or less distinct, paler, raw-sienna-coloured, longitudinal streaks in central part; distal fourth and hind border of wing as in ♀, but paler, and with a scarcely noticeable violaceous tinge.*

*Head*: mystax as in ♀, except that it may contain two or three white hairs on each side; antennae with a narrow dark band at base of fourth joint. *Thorax and abdomen* as in ♀, except that longer hair clothing dorsum of first abdominal segment is dark brown instead of black. *Legs*: hind femora stouter than in ♀; hind tibiae with a long curved spine at tip; claws longer and more powerfully developed than in ♀. All other details (except shape and width of abdomen) as in ♀.

Brazil: type and one other specimen from Parana, 1906 (*E. D. Jones*): in British Museum (Natural History).

It would seem practically certain that the undescribed female *Mydas* from Chapada, Brazil, mentioned by Dr. S. W. Williston (*Kansas Acad. Sci.*, 1897, p. 56), as, in his belief, "the largest specimen of a dipteran ever recorded, measuring 50 millimetres in length with a spread of wings of over 100," should be assigned to this species. *M. praegrandis* is also referred to (as "an indeterminate species of *Mydas* from South America"), and figured by Dr. Williston, in his *Manual of North American Diptera*, 3rd Edition (New Haven: James T. Hathaway, 1908), p. 16.

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