

XXVII. *On Elaphomyia, a Genus of remarkable Insects of the Order Diptera.* By W. W. SAUNDERS, Esq., F.R.S., &c.

[Read May 2nd, 1859.]

NATURALISTS are greatly indebted to Mr. Wallace for the number of new and remarkable animals discovered by him in the East India islands. Entomologists especially have to thank him for a knowledge of a great many new and extraordinary forms of insect life, among which the *Diptera*, I shall attempt to describe in the following paper, stand pre-eminent. They were collected in the island of Dorey, and are distinguished at once by a very remarkable expansion of the sides of the head in the males into horn-like elongations, resembling the antlers of the deer tribe in miniature. These insects have been recently sent to this country, and I take the earliest opportunity of laying an account of them before the Society. They belong to the large family *Muscidæ*, and are allied to the genus *Calobata*, Fab., from which they differ in the horn-like appendages to the head, in the distinctly pedicelated abdomen, and in the neuration of the wings. I propose placing them in a new genus, which I call *Elaphomyia*, and which may thus be shortly characterized.

ELAPHOMYIA, W. W. S.

Head rounded, with the labrum much advanced in a nearly horizontal line, particularly in the males, and having a projection on the sides beneath the eyes, often long and horn-like. *Antennæ* with the terminal joint elongate ovate, bearing a long seta, more or less pectinate. *Thorax* ovate, robust. *Halteres* moderate. *Wings* long, rather narrow, with the apex rounded and gradually tapering thence towards the base, and having two transverse nervures on the disc, and one towards the base, the latter connecting in nearly a straight line both the internal and medial longitudinal nervures. *Abdomen* petiolate, the clava more or less ovate. *Legs* long and slender.

The species are five in number, and may be divided into three sections, thus :—

1st sec. Horn-like appendages to the head long and well developed.

1. *Cervicornis*, W. W. S.
2. *Wallacei*, W. W. S.
3. *Alcicornis*, W. W. S.

2nd sec. Horn-like appendages to the head short, and having the anterior margin of the wings much thickened.

4. *Brevicornis*, W. W. S.

3rd sec. Head without horn-like appendages.

5. *Polita*.

The whole of the species are in my Collection.

E. cervicornis, W. W. S. (Plate XII. figs. 4 ♂, 5 ♀.)

♂ Head black-brown above, dark rusty-brown below; the portion behind the eyes much restricted, and forming a kind of circular collar, with a long, thin, one-branched, black, tipped with white beyond the furcation, incurved horn, two-thirds the length of the insect, arising from the side of the head just under the eyes and directed forwards. Thorax elongate ovate, narrowed in front, yellowish-olive above, blackish below, with the halteres small, yellowish-brown. Wings long, hyaline, pale smoke-brown, with the anterior margin dark smoke-brown, and a shade of the same colour at the apex. Abdomen petiolate, longer than the head and thorax combined, the petiole yellow-brown, about as long as the clava, the latter narrowly ovate, pointed at the apex, darker brown, with the first joint margined with dusky-brown; legs long, pale yellowish-brown, with the hinder tibiae and the tarsi, except the first joint, dusky.

Length $\frac{3}{16}$ inch; horns $\frac{1}{16}$ inch.

♀ With the head small, rounded, without horns and without the collar behind the eyes being so well marked, of the same colour as the ♂; length rather smaller, and with the abdomen slightly pilose.

E. Wallacei, W. W. S. (Pl. XII. fig. 3 ♂.)

♂ Head dark dusky-brown, broad in front, restricted behind, with a long spatulate, pointed, concavo-convex, slightly curved horn arising on the side of the head just below the eyes, and projected forward at a considerable angle, dark rufous-brown. Thorax elongate, ovate, pointed in front, dark fuscous-brown, with the halteres small, bright yellow; scutellum yellowish-brown. Abdomen petiolate, about the length of the head and thorax, dark fuscous-brown, with a yellow transverse band on the basal joint near the hinder margin, and slightly downy. Legs long, thin, pale dull rufous-brown, with a yellow band adjoining the

base of each of the femora ; tarsi with the first joint dull yellow. Wings hyaline, dull yellow-brown, with the nervures black.

Length $\frac{5}{16}$ inch.

♀ Coloured as the male, but smaller, with a small rounded head without horns, and the petiole of the abdomen shorter.

Length $\frac{4}{16}$ inch.

E. alcicornis, W. W. S. (Pl. XII. figs. 1 ♂, 2 ♀.)

♂ Head transversely oval, rufous-brown, with the portion between the eyes speckled with black, having two short flattened spatulate horns arising immediately under the eyes ; their bases, partially crossing each eye, directed forwards at an angle of nearly 45 degrees, the broader part being twice as long as the stalk, somewhat semicircular, with a long projecting angle in the line of the diameter, and six more or less projecting teeth on the rounded portion, rufous-brown, with the stalk yellowish, the marginal teeth darker, and some yellowish lines running from the centre of the broader part towards the dentations. Thorax ovate, dusky-brown, with two elongate black lines above on the fore part, and two diagonal lines slanting to the abdomen on the sides, rusty-brown ; the scutellum bright rusty-brown, and the halteres bright-yellow. Wings about the length of the abdomen, narrow, dusky-brown, with a black-brown patch at the apex. Abdomen slightly pilose, clavate, dusky-brown, with the posterior margin of the joints dull yellow. Legs rather long, dull rufous-brown, with the bases of the femora dull yellow and the knees paler, and the anterior femora having on the underside, about the middle of their length, a patch of black bristles pointing forwards.

Length ♂ $\frac{5}{16}$ inch.

♀ Much the same as the male in colours, but with the head and scutellum dull yellow, and eyes black-brown ; clava of abdomen broader, and without the patch of bristles on the anterior femora.

Length as ♂.

E. brevicornis. (Pl. XIII. figs. 2 ♂, 3 ♀.)

♂ Head black-brown, with some yellow lines in front, and with a yellow line under the eyes behind ; transverse, vertically flattened, with a sharp vertical ridge, having on the space between the eyes on either side just below the vertex a polished oval convex disk ; eyes much protruding, dark rufous-brown, and having on the side of the head just below a very short, rounded, flattened projection, inclining forwards in the way of a horn ; labrum black, shining, transverse, little projecting. Thorax black,

halteres yellow. Wings broad, of median length, with the anterior margin much thickened and produced into an angular projection a little behind the transverse nervure; hyaline, with a black-brown band along the anterior margin, and a streak of the same colour on the inner margin near the base. Abdomen slightly hirsute, about the length of the head and thorax, petiolated; the petiole rather short, the clava ovate, pointed, robust, black-brown, with a yellow band crossing the middle of the first joint. Legs dark fuscous-brown, with the bases of the femora lighter, and the first joint of the tarsi rufous-brown.

Length $\frac{3}{10}$ inch.

♀ Resembling the male, but with the head smaller, without horn-like projections, and having the thorax with two yellow bands along the upper surface, and another band of the same colour along each side from the anterior portion to the base of the wings; length the same as the ♂.

E. polita, W. W. S. (Pl. XII. fig. 6 ♂. Pl. XIII. fig. 1a, &c.)

♂ Head dark, dull rufous-brown, rounded, with the eyes but little projecting, the labrum much advanced over the parts of the mouth, rounded, convex above, dull yellow, and a large patch of the same colour extending beneath the eyes from side to side, and having a small rounded ridge-like elevation on either side of the head, situated beneath and behind the eyes, about midway between the front of the head and the thorax. Thorax black-purple, very shining and smooth, ovate-elongate, much produced in front into a kind of neck on which the head is situate. Halteres black. Wings long, hyaline, pale dusky-brown, with the anterior margin narrowly lined with black. Abdomen rather long and thin, petiolate, shining blue-black. Legs long and thin, dark fuscous-brown, with the bases of the femora yellow.

Length $\frac{6}{10}$ inch.

♀ As the male, but smaller, with head not so large; the labrum but little advanced and black, and no rounded elevation on the side of the head.

This species approaches closely to some of the species of *Calobata*, and is remarkably polished and shining.

DESCRIPTION OF PLATES XII. AND XIII.

PLATE XII.

Fig. 1. *Elaphomyia alcornis*, W. W. S. Male.

1 a. Head and base of the fore legs seen in front.

1 b. Head seen sideways.

2. *Elaphomyia alcornis*. Female.
 - 2 a. Head seen sideways.
3. *El. Wallacei*, W. W. S. Male.
 - 3 a. Head and base of fore legs seen in front.
 - 3 b. Ditto seen sideways.
 - 3 c. Head of the female seen from above.
 - 3 d. Abdomen of the female seen sideways.
4. *Elaphomyia cervicornis*, W. W. S. Male.
 - 4 a. Head of ditto seen in front.
 - 4 b. The same sideways. The base only of the frontal horn represented.
 - 4 c. Frontal horn seen sideways.
5. *Elaphomyia cervicornis*. Female.
6. *Elaphomyia polita*, W. W. S. Male.

PLATE XIII.

- Fig. 1 a. *Elaphomyia polita*. Head of male seen sideways.
- 1 b. Ditto seen in front.
 - 1 c. Head of female seen sideways.
 - 1 d. Abdomen of female seen from above.
 - 1 e. Ditto seen sideways.
2. *Elaphomyia brevicornis*, W. W. S. Male.
 - 2 a. Head of male seen in front.
 - 2 b. Ditto seen sideways.
 3. *Elaphomyia brevicornis*. Female.
 - 3 a. Head of ditto seen in front.
 4. *Achias longividens*. Male. Walker, Journal of Proc. Linn. Soc., vol. iii. p. 121 (1859).
 - 4 a. Face of ditto seen in front.
 - 4 b. Head of ditto seen sideways.
 5. *Achias longividens*. Female.
 - 5 a. Head of ditto seen in front.
 6. *Achias latividens*. Female. Walker, op. cit. p. 121.
 - 6 a. Head of ditto seen in front.
 7. *Achias amplividens*. Female. Walker, op. cit. p. 122.
 - 7 a. Head of ditto seen in front.
 - 7 b. Abdomen of ditto seen sideways.

NOTE.—The singular insects of the very rare genus *Achias*, represented in the preceding figures, were captured by Mr. Wallace in the Aru Islands, and, although described by Mr. Walker in the Proceedings of the Linnæan Society, the opportunity has been seized of figuring so fine a series of additions to the genus in question:—the Transactions of the Entomological Society of London being already enriched with the description and figure of another still more remarkable species of the group, *Achias Ichneumonæus*, Westw., vol. v. p. 235, pl. 23, fig. 8, from India.



