

Collin, J.E. Notes on some Drosophilidae (Dipt.), including five additional British species, two of them new to science

Entom. Month Mag., 88:197-199. 1952.

P137/ The following notes on, and additions to, the British species of Drosophilidae are published at the request of my friend Mr. E.B. Basden of the Institute of Animal Genetics, West Mains Road, Edinburgh, who is working on the family. He will be dealing particularly with the species found in Scotland, a part of the British Isles from which records of the distribution of Drosophilidae are very scanty.

Chymomyza fuscimana Zett. (1830). This species was added to the British List by me in 1911 (Ent. Mon. Mag., 47:231), with distincta Egg. as a synonym. In 1914 (Arch. Naturg., 80:15) Oldenberg proved that there were really two closely related but distinct species under this name, and pointed out the differences (mainly genital) by which these two species might be distinguished. Our species is certainly that for which he used the name of distincta Egg., but more recently Meigen's name of nigrimana has been used for this species. The evidence in support of this claim to have recognised Meigen's species appears to be very weak, his description might equally well have been drawn up from specimens of fuscimana Zett., a species which Oldenberg found to be common near Berlin. This synonymy was indeed suggested by Zetterstedt when describing his species. The type of nigrimana cannot be found, but no one appears to have examined Baumhauer's collection in Berlin, from which collection Meigen described the species. At present the only fairly certain name for our British species is distincta Egg., not fuscimana Zett.

Drosophila deflexa Duda (1924). This species was also added to our List by me in 1911 (Ent. Mon. Mag., 47:230), but under the name of rufifrons Lw. When Duda later (1924, Ent. Medd., 14:304) described deflexa it became obvious that the species I had identified as rufifrons was actually Duda's deflexa, but meanwhile Dr. C.G. Lamb had found the true rufifrons Lw. in the New Forest, and gave me a male, so that both names may remain in the list. In addition I have recently seen specimens of true rufifrons taken on June 18th, 1932, by Dr. O.W. Richards on oak-sap in Windsor Forest (Berks).

Drosophila helvetica Burla (1948, Rev. Suisse Zool., 55(15):276). --- This is a very small species of the obscura-group distinguished in the male sex by the possession of sex-combs consisting of only three black spines at the end of the first joint, and only two at the end of the second joint of front tarsi. It was reared by me in 1935 from a mass of sap-soaked 'frass' at the base of a Cossus-infested oak tree in Moccas Park (Hereford).

✓ Drosophila (Acrodrosophila) testacea v. Ros. (1840, Württemb. Corrb. 62). --- A small yellowish species easily known by the presence of a pair of well-developed bristles placed rather close together on middle of thoracic disc close to the suture. I swept a female of this species in a glade of Woodditton Wood (Cambs.) on the 24th May, 1947.

Amiota albilabris Zett. (1860, Dipt. Scand., 14:6425). A species of very distinctive appearance having dark legs with only front tibiae and knee-joints of four posterior legs yellowish, and all tarsi almost white, a male of which was taken by me in Chippenham Feg (Cambs.) on the 1st August, 1951.

✓ Drosophila fenestratum Fln. (1823). --- This species occupies



what isolated position in the genus. Apart from the fact that the acrostichal setae of the thorax are less numerous, somewhat longer, and irregularly 4-6-rowed, not regularly six-to eight-rowed as in other species of the genus, there are usually one or two extra pairs of smaller dorsocentrals developed, one of them in front of suture, while the face has only a slight keel on upper part. In addition there is a character in the sternopleural bristles which at once separated this species and its allies from all species of Drosophila and Scaptomyza known to me: instead of the anterior of the three upper sternopleural bristles being longer than the (often very small) middle one, this latter is always longer than the anterior one, the posterior one being throughout each genus much the longest of them all. The species of this small group further differ from Scaptomyza and Parascaptomyza in having two long distinct hairs beneath the arista in addition to the forked tip.

Some years ago I saw the male type of fenestrarum in Fallén's Collection and noted that it had a very large hypopygium with large caliper-like claspers (or lamellae). Duda (1924, -nt. Medd., 14:fig. 6) evidently used Fallén's name for the same species, but there is a second species with not quite so large a male hypopygium, similarly hinged but narrow lamellae, and other genital distinctions, which is even more common than fenestrarum in England and which also occurs in Scotland. The remarkably large hinged lamellae in these two species are unlike those of any other species in the genus, but in the third species now described (acuminata) the lamellae are more normal.



Figs. 1-3-- Drosophila forcipata sp. n., male; 1. hypopygium with hinged lamella; 2. penis and paired processes; 3. genital sternite, 'x' indicating point of attachment of paired processes.

✓ Drosophila forcipata sp. n. male and female p. 198

Closely resembling fenestrarum, having the same group characters as given above, but with smaller hypopygium in male, and genital details as figured above. Female abdomen usually mainly yellow, though apparently variable in colour, but ovipositor plates with stronger spines.

Males Similar to fenestrarum in general colour, with similar front tarsi, and two almost equally strong humeral bristles. Abdomen with greater tendency to be pale about base, and not quite so shining except on last visible tergite and hypopygium. All genital parts (figs. 1-3) differing from those of fenestrarum, a special feature (always visible) of the narrower lamellae (or forceps) being the conical projection at base of each, near anal cerci, these hairy cerci, or anal plates, being also much smaller and paler.

Female. If correctly separated from fenestrarum is very variable



in colour of abdomen; this though often entirely yellow, may have indications of a dark median line, or this line together with dark hindmargins to tergites, then the sixth and seventh tergites may be entirely black leaving the ovipositor plates yellowish, or finally even these latter may be dark, only the anal cerci remaining yellow, the only certain distinction from fenestrarum then being the stronger spines (5 to 7) on each ovipositor plate with the lower 1-2 stronger than the others. In fenestrarum female the spines are all small, and the anal cerci somewhat larger and longer. As no pairs have been seen in cop. and both species may be found in a restricted area, the more common females have been associated with the more common males.

199 This species is very widely distributed in Britain, and has been taken in every month of the year, except December, January and February. Many of the localities are on the coast, but some are inland. Typical specimens were taken at Studland (Dorset) on 20th August, 1906.

The following species while possessing all the group characters of the two preceding species has male genital lamellae of more normal type.

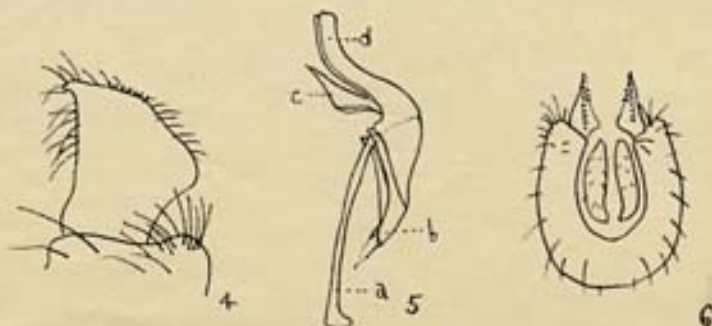


Fig. 4-6. 4, Drosophila fenestrarum Fln., male, genital lamella; 5, D. acuminata sp. n., male; a apodeme of penis; b, genital sternite; c, penis; d, paired processes; 6, D. acuminata sp. n., male; external view of hypopygium, with penis removed.

*Drosophila acuminata* sp. n. male p. 199

Differing from *D. fenestrarum* Fln., and *D. forcipata* Collin in having palpi extensively darkened. Abdomen with dark hind margins to tergites 2-5, sixth and the smaller hypopygium entirely black, but the latter with entirely different genital parts.

Male. Similar to the other two species in colour and all group characters including similar front tarsi, but palpi darker (in males of the other species they are yellow or with only the tip brownish), and upper humeral bristle smaller than lower. Abdomen more extensively yellow, ventral surface entirely, yellow. Genital lamellae small and very pointed bearing a row of minute black spines (fig. 6), penis and paired processes of distinctive shape (fig. 5). In the dissection figured a small portion of the upper part of genital sternite (above the apodeme) was broken off and lost.

Length about 2 mm.

Described from two males, one taken by Col. J.G. Yerbury at Torcross (Devon) on 12th August, 1903, and the other by Dr. C.G. Lamb near Padstow (Cornwall) in September, 1902. Though two females were taken at the same time and place as the Torcross male I consider them to be females of *forcipata*, the male of which has been taken in the same locality. In both these females the two humeral bristles are equally large.

Raylands, Newmarket.

April 22nd, 1952.