SOME DROSOPHILIDAE (DIPTERA) OF THE BRITISH ISLES

BY E. B. BASDEN

During 1950-51 a survey of the Drosophilidae was carried out over the mainland and islands of Scotland, chiefly by putting out trap bottles containing fermenting substances. Traps were also exposed in several localities in England and in Guernsey and Dublin. A total of 22 species was obtained (21 from Scotland), of which 17 belonged to the genus *Drosophila*. This is rather a low total compared with continental countries, but 18 species in the list of 33 given by Kloet and Hincks (**1945**:400-401, 433) were not encountered, mainly no doubt because some methods of collecting were not employed. The subjoined list includes seven species additional to those recorded by Kloet and Hincks, two of these appear to be new records for Britain and are marked with an asterisk (*). Others may be new records to Scotland, but all Scottish species will be dealt with in detail in a paper now being prepared.

Drosophila subobscura Collin.—The commonest and most widespread species of the family, extending in range from the very north mainland of Scotland to the Channel Islands and Eire. An outdoor species that only exceptionally enters buildings and is the only species that can certainly be trapped in open tree-less areas (moorlands, wide pastures). Adults occur every month of the year in Scotland. Apart from the type series of *D. subobscura* reared from diseased iris roots (Smart, J., 1945, *Proc. R. ent. Soc. Lond.*, (B) **14**:56) and a record of Buzzati-Traverso (in Burla, H., 1951, *Rev. Suisse Zool.*, **58**:96) of larvae developing in decaying fruits of *Cornus* sp. in Italy, there appear to be no natural breeding records of this common species. I was pleased, therefore, to examine recently two males and four females reared by Dr. O. W. Richards from galls of *Biorrhiza pallida* (Oliv.) on oak in a hedge at Slough, Bucks. The galls were collected June 7th, 1934. They were damaged, probably by birds, and were fermenting with an alcoholic smell. The specimens emerged between June 22nd and July 9th, 1934.

D. obscura Fall. (=*obscuroides* Pom.) (Cain et al., 1952).—This species is as widespread as *D. subobscura*, including Dublin and Guernsey, but is more of a woodland species. It does not enter buildings. Adults have been caught in every month except January.

D. tristis Fall.—This has a widely scattered distribution in Scotland and I also have specimens from Cornwall, but it is only infrequently met with, though adults are active for most of the year.

D. ambigua Pomini (1940).—The type specimens were from London (Pomini, 1940: 159) and since then the species has not been recorded from Britain. It is omitted from Kloet and Hincks's 'Check List.' I have specimens from the Edinburgh area, near Paisley, and Hunter's Quay in Scotland, from Dublin and from Stinchcombe (Glos.). Since then specimens in the British Museum (Nat. Hist.) from Surrey and Devon have been identified, and Mr. Collin finds he has it from Kent.

D. sp.nov. near *obscura* Fall.—This distinct species with two long bristles (an upper and a lower) on ovipositor plate of female and only three to five teeth to the sex combs of male is quite a common woodland species in Scotland, and Mr. Collin has it from the New Forest (Hants.). After initial difficulties vigorous stocks are now being maintained and crossing tests with closely related species are being carried out to prove its identity. When these are completed it will be described.

D. deflexa Duda.—Occasional adults can be trapped in wooded areas during July to October. It has occurred in several localities in Scotland and in Bournemouth (Hants.), and Dublin. The larvae in my cultures at 18° C. go into a diapause during the winter months. All my specimens have distinct prescutellar bristles, which Duda does not mention, in fact in his 1935 key, *D. deflexa* is in that portion covering species with prescutellar bristles *not* stronger than the acrostichal bristles in front of them, but Mr. Collin is convinced that my specimens are Duda's *deflexa*. *D. guyenoti* Burla may be closely related to it systematically, in fact Dr. Burla himself thought some of my specimens were, from memory, his species with the result that *D. guyenoti* was mistakenly recorded as British (Basden, 1951:99), which record should be erased.

D. funebris (F).—This is the most frequent species to be found inside buildings, where it occurs at all seasons, but it is also plentiful outdoors. Widespread.

D. buscki Coq.—This species may be widespread in built-up areas, but as yet I have it only from the Brechin, Blairgowrie, and Edinburgh parts of Scotland, and at Halewood (Lancs.), and at Little Stukeley (Hunts.) during August to November. It is similar to *funebris* in its liking for decaying rather than fermenting substances and in being a semi-domestic species.

D. melanogaster Meig. (=*fasciata* Mg. of Duda, 1935).—The adults have been found outdoors from July to November, and indoors from July to January. It is fairly widely

scattered in Scotland and I have specimens also from Dublin, Guernsey, Kent, Lancs., Hunts. and Cornwall.

D. simulans* Sturtevant (1919, *Psyche*, **26: 153-155).—I have this from Edinburgh and Liberton (Midlothian), Inverkeithing (Fife), Halewood (Lancs.) and Little Stukeley (Hunts.), from September until November. This species will doubtless be found to be widespread in Britain once its distinguishing characters from *melanogaster* are appreciated.

D. phalerata Mg.—This and the following two species breed in toadstools, this being the commonest of the three. It is often attracted to apple baits. I have found it in various parts of Scotland and in Lancashire, Suffolk, Hampshire and Guernsey.

D. transversa Fall.—This species can be reared in large numbers from various toadstools, but is rarely attracted to fruit baits. It is the least common of the three toadstool species. I have it from a few Scottish localities.

D. cameraria Haliday (1833, *Ent. Mag.*, **1**: 174) (=*pallida* Ztt. =*unistriata* Strobl, of Duda, 1935).—This was frequently found around toadstools from July to September and often reared from these. A few adults go to fruit baits during the winter months. All my specimens are from Scotland but Mr. Collin informs me that it is not uncommon in England. The original specimens came from County Down, Northern Ireland. *D. cameraria* does not occur in Kloet and Hincks's 'Check List,' no doubt because Duda (1935) gave *cameraria* Hal. as a doubtful synonym of *fasciata* Mg. = *melanogaster* Mg.

D. immigrans Sturt.—This is common in fruit stores in Edinburgh and specimens were collected at New Romney (Kent) and Halewood (Lancs.).

D. ? hydei* Sturtevant (1921, *Publ. Carneg. Instn.*, **301: 101).—This has been obtained in widely scattered localities at Brechin, Edinburgh, Halewood, Little Stukeley, Bury St. Edmunds, Maidstone and New Romney. Doubts exist concerning its identity with Sturtevant's type, but these should be cleared up when crossing tests with American *hydei* have been completed by me. It is certainly not *D. repleta* Woll., though of the *repleta* group.

D. forcipata Collin (*antea*, p. 198).—Two specimens only, from Bonnyrigg and Liberton (both Midlothian).

D. (*Acrodrosophila*) *testacea* v. Ros.—One male, September, 1951, at fruit bait, New Romney (Kent). See also Mr. Collin's paper (*antea*, p. 197).

Scaptomyza apicalis Hardy.—Probably common, but I have collected only one male from inside a bus at Dalkeith (Midlothian).

S. graminum (Fall.) Hardy (of Duda, **1935**).—A common species, but I have it only from Midlothian and Insh Isle (Argyll). As understood by Duda this species has four rows of anterior acrostichal bristles, but American authors give the name to a species with two rows.

Parascaptomyza disticha (Duda).—Often found in windows in various Scottish localities, and in Liverpool.

Chymomyza costata (Ztt.).—One female was trapped at Coldbackie, on extreme northern coast of Scotland in September.

Amiota alboguttata (Wahlberg).—I have seen, as yet, only one male and two females, from Dalkeith (Midlothian), April, 1952. Mr. Collin tells me that he has taken it not uncommonly in the Spey Valley (Inverness).

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A Braconid (Hym.) parasite of Ochina ptinoides Marsh. (Col., Anobiidae).—There are apparently no records in the literature of parasites of *Ochina ptinoides* Marsh. (Col., Anobiidae) and hence the successful rearing of a species of Braconid is of interest. In March, 1952, an old stem of ivy containing a number of mature larvae of the parasite and host was received from Dunblane, Perthshire. The parasite, kindly identified by Mr. G. E. J. Nixon as *Triaspis ? striola* Th. (Hym., Braconidae), emerged in the laboratory one week before the host and lived in captivity about 10 days. From the stem in question sixty adult *Ochina* subsequently completed their development and twenty-five *Triaspis* females were obtained.—N. W. HUSSEY, Department of Agricultural and Forest Zoology, 10 George Square, Edinburgh, 8: *June 24th*, 1952.