

NOTES ON BRITISH FUNGUS GNATS OF THE  
SUB-FAMILIES DITOMYIINAE, BOLITOPHILINAE, DIADOCIDIINAE,  
MANOTINAE AND KEROPLATINAE (DIPT., MYCETOPHILIDAE)

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This paper provides notes on the fungus gnat genera dealt with by Hutson & Kidd (1972, 1974) and augments information given by them. Notes on some other British species of these sub-families are included, particularly on the separation of females in the sub-genus *Neoplatyura* Malloch of *Orfelia* Costa (= *Platyura* Meigen of Edwards). The initials AES and PJC are used for data referring to captures by Mr. A.E. Stubbs and myself; the names of other collectors are given in full.

DITOMYIINAE

*Symmerus annulatus* Meigen

The genus *Symmerus* is treated on a world scale by Munroe (1974). His British records for our only species, *S. annulatus*, were all from England and I have seen no published Welsh or Scottish records. I can add the following localities:—

HANTS.: Petersfield, 10.vii.67, 1 ♂ (AES); Selborne Common, 1.viii.70, 1 ♂ at foot of beech hanger (PJC). HUNTS.: Monk's Wood, 28.vi.71, 2 ♂ (J.H. Cole). KENT: Shoreham, 19.vi.66, 1 ♂ in beech woodland (AES). MONTG.: Welshpool, 9.vi.73, 1 ♂ in deciduous wood north of town (PJC). ARGYL.: Glasdrum N.N.R., 7.vii.74, 2 ♂ 1 ♀ in deciduous wood on steep slope (PJC). LAN.: Kirkfield Bank, 12.iii.64, larvae in rotten wood, 1 ♀ reared 25.v.64 (G. Hosie).

BOLITOPHILINAE

*Bolitophila occlusa* Edwards

Although the only published record of this species is of the type male from the New Forest, Hants (Edwards, 1913) there are specimens in the British Museum (Nat. Hist.) collection from Westmorland, N.E. Yorks, Berks. and the Scilly Is. and I have seen two males from Monk's Wood, HUNTS., 25.vi.72 and 28.vii.72 (J.H. Cole). The B.M. series includes a pair reared by Dr. K. Southern from the fungus *Tyromyces* (or *Polyporus*) *lacteus* Fr., on a standing dead beech trunk in Wytham Wood, BERKS., 17.ix.65. On 3.x.71, I found numerous larvae in a closely related blue-staining soft white Polypore, possibly *T. caesius* (Schrad.) Fr., on a fallen branch in carr woodland on the Leckford Estate, HANTS. Large numbers of adults emerged, 11-13.x.71.

*B. rossica* Landrock

Hutson & Kidd (1972) added *B. rossica* to the British list on specimens from Aberdeenshire and Lancashire. I have recently examined 1 ♂ and 1 ♀ swept from heather (*Calluna*) at Rannoch, PERTH., 30.ix.66 (G. Hosie).

*B. dubia* Siebke

A mainly Scottish species but infrequently recorded even from Scotland,

with one record from Westmorland (Edwards, 1925); a record quoted by him from North Lancs. was queried by Hutson & Kidd (1972). I have the following material.

ARGYL.: Glasdrum N.N.R., 7.vii.74, 2 ♀ (PJC). AYR.: Cugar, vii.69, 1 ♀ (AES). DUMF.: River Nith, vii.69, 1 ♀ (AES); Wamphray Glen, i.vi.73, 1 ♂ (PJC). PERTH.: Grantully Castle, vii.69, 1 ♀ (AES). Tummel Forest, 28.v.73, 2 ♂ (PJC); Foss Bridge, 22.vi.74, 1 ♀ (PJC) (mostly by streams flowing through deciduous woodland).

*B. tenella* Winnertz and *B. basicornis* Mayer

Hutson & Kidd (1972) separated the existing British material of these species, which had been confused under the name *tenella*. They suggested that *B. basicornis* might be a northern species (south to Yorks.) while *B. tenella* was widespread north to Notts. and Cheshire. Later (1974) they assigned one of the Cheshire records to *B. basicornis* so that at least a slight overlap in distribution was implied. I have the following material, which surprisingly suggests a much wider overlap in their distribution.

*B. tenella* Winnertz: KENT: Westerham, Hosey Common (see Chandler, 1966). PERTH.: Foss Bridge, 22.vi.74, 1 ♂ by wooded stream (PJC).

*B. basicornis* Mayer: OXON.: Cothill, 26.ix.71, 1 ♂ in woods adjacent to C.N.T. Reserve (PJC). PERTH.: near Blairgowrie, 28.v.73, 1 ♂ by scrubby roadside north of town on A73 (PJC).

*B. spinigera* Edwards

This species appears much less common than its relatives, *B. cinerea* Meigen and *B. saundersi* Curtis. Apart from an Irish specimen I am recording elsewhere (Chandler, in press), I have seen the following.

INV.: Fort Augustus, 22-31.x.68, 1 ♀ in Rothamsted light trap.

DIADOCIDIINAE

Hutson & Kidd (1974) established that two species had been confused under the name *Diadocidia ferruginosa* Meigen, giving records of both the true *ferruginosa* and of *D. spinosula* Tollet from all parts of Britain. Although both are widespread, the latter is less frequent and my experience confirms this view. I have only five males of *D. spinosula* (compared with twenty of *ferruginosa*) but these add two counties to those listed by Hutson & Kidd.

*D. spinosula*: CHES.: Delamere Forest, 16.vi.71, 1 ♂ wooded heath by pond. KENT: Westerham, Hosey Common, 25.ix.66, 1 ♂ in woodland; Sevenoaks, Knole Park, 6.ix.66, 1 ♂ in beech woodland. SURREY: Oxshott Heath, 15.x.66, 1 ♂ in birch woodland. W. YORKS.: Ewden Valley, 21.ix.71, 1 ♂ woodland by reservoir (all PJC).

*D. ferruginosa*: I have specimens from Berks., Oxfordshire, Worcs. and Co. Cork in addition to counties listed for this species.

MANOTINAE

*Manota unifurcata* Lundstrom

The only published record of this curious little gnat from Britain was by Edwards (1941) from Chippenham Fen, Cambs., a single male on 22.vii.1940. It is the only European representative of the sub-family and is apparently

rare wherever it occurs, the few foreign records also being of single specimens (Lundström, 1913; Bukowski, 1934; Matile, 1970). Nothing has been recorded concerning the biology of the sub-family but a single male was reared by Mr. A.E. Stubbs from rotten beech wood bearing a growth of an unidentified Myxomycete (slime mould), collected during v.67 in Windsor Forest BERKS.; the fly emerged within a month but the early stages were unfortunately not observed.

#### KEROPLATINAE

##### *Macrocera* Meigen

Hutson & Kidd (1974) discussed several species of the genus *Macrocera* belonging to the group lacking both wing markings and macrotrichia on the wing membrane and provided a key to the British species of this group. It should be noted that another British species of the genus, not mentioned by them, i.e. *M. tusca* Loew, might be placed in this group. Edwards (1925) included *M. tusca* in the section of the genus with distinct wing markings but the only wing marking in *M. tusca* is a small dark area in the base of cell  $Cu_1$ , which may be faint or ill-defined in some specimens and is easily overlooked. Conversely, Hutson & Kidd (*op. cit.*) noted that *M. aterrima* Stackelberg has a vague spot in the same position as that in *M. tusca*. It has not previously been mentioned that *M. anglica* Edwards has an ill-defined dark area in this position and also sometimes a dark patch in the basal cell below *r* and adjoining the faint basal extension of *m*; as in *M. tusca* these markings are more distinct in some specimens than in others and there is nothing to separate *M. tusca* from this group in this respect. In one specimen of *tusca* in my collection (Windsor Forest) a patch in the basal cell corresponding to that in *M. anglica* is apparent and it also has the cubital spot more strongly marked. The cubital spot in the other two specimens of *tusca* mentioned below is very faint.

It is, therefore, desirable to indicate the characters by which *M. tusca* may be distinguished from the eleven forms covered by Hutson & Kidd (*op. cit.*). It should be noted that there is an error in the first couplet of this key, where "beyond" should read "before" and "or beyond" should perhaps be inserted after "above" in the second alternative.

*M. tusca* is similar in size to *M. anglica* or somewhat smaller (i.e. 3 mm in the female, 4-5 mm in the male) but is readily distinguished because it has the vein Sc reaching the level of the tip of the basal cell and has three shining brown stripes on the yellow mesonotum, in fact conforming to the description of *M. pusilla* Meigen sensu Edwards except in the length of vein Sc. In the male, the antennae are as long as the body (compared with 3X body length in *M. anglica*) and distinctly shorter than the body in the female (1-1½X body length in *M. anglica* female and in both sexes of the *M. parva* group). *M. tusca* resembles *M. anglica* in the yellow abdominal bands but in the male these occupy only the posterior halves of the first four tergites (the apical tergites and hypopygium being entirely black) and in the female narrower obscurely yellow bands are present on the first six tergites.

*M. tusca* would thus run to couplet 5 in the aforementioned key, agreeing with *M. propleuralis* Edwards in the anterior broadening of the median dark thoracic stripe but differing in the yellow propleura and smaller body size; its antennae are unicolorous brown. The tip of vein  $R_1$  is slightly thickened compared with that of *M. anglica* but much less so than in *M. aterrima* Stackelberg and *M. vittata* Meigen. The male claspers of *M. tusca* are also distinctive among British *Macrocera* in lacking distinct subterminal spines (fig. 1), these being reduced to very short blunt terminal processes. I have also figured the female genitalia (fig. 2) for comparison with those of *M. anglica* and the species of the *parva* group discussed below.

The British records known to them of *M. anglica* were listed by Hutson & Kidd (1974), all from England north to Staffs. They have overlooked some other published records, i.e. by Madwar (1935), who described the early stages found under loose bark of damp logs in Richmond Park, SURREY and Epping Forest, ESSEX; Audcent (1950) from West Town, SOM. and Stubbs (1971) from Bucklebury Common, BERKS. Edwards (1925) only recorded *M. tusca* from Holker Moss, N. Lancs.; Kidd & Ackland (1970) added a record from the Lake District. These records imply that *M. tusca* is a northern species while it has a southern continental distribution. My records are from southern England so it appears widespread in Britain and the initial records from northern England were apparently fortuitous.

The additional records known to me of these species are as follows.

*M. anglica* Edwards: HERE.: Shobdon Marsh, 29.vii.73, 1 ♀ in swampy mixed woodland (PJC). SURREY: Devil's Punchbowl, 30.vii.74, 1 ♀ (AES). SUSSEX: Durford Heath, 25.vii.74, 1 ♂ in mixed woodland (PJC); Inholm's Copse, 26.vii.74, 1 ♂ in mixed woods (PJC). WILTS.: Savernake Forest, 2.vii.74, 1 ♀ in beechwood (PJC).

*M. tusca* Loew: BERKS: Windsor Forest, 15.vi.71, 1 ♂ in mixed woodland near Cranbourne Tower. KENT: Bromley, 10.x.71, 1 ♂ in mixed woodland near the Rookery. OXON.: Bix Bottom C.N.T. Reserve, 12.vii.72 1 ♀ (all PJC).

The principal contribution to knowledge of British *Macrocera* by Hutson & Kidd (*op. cit.*) was in connection with the *M. parva* Lundström group, including the description of a *variety* of *M. parva* differing in the shape and bristling of the claspers from typical *M. parva* and the addition to the British list of *M. aterrima* Stackelberg, differing from *M. parva* principally in the strongly thickened tip to vein  $R_1$ . These forms were based on two males and one male respectively, all three from the Scottish Highlands.

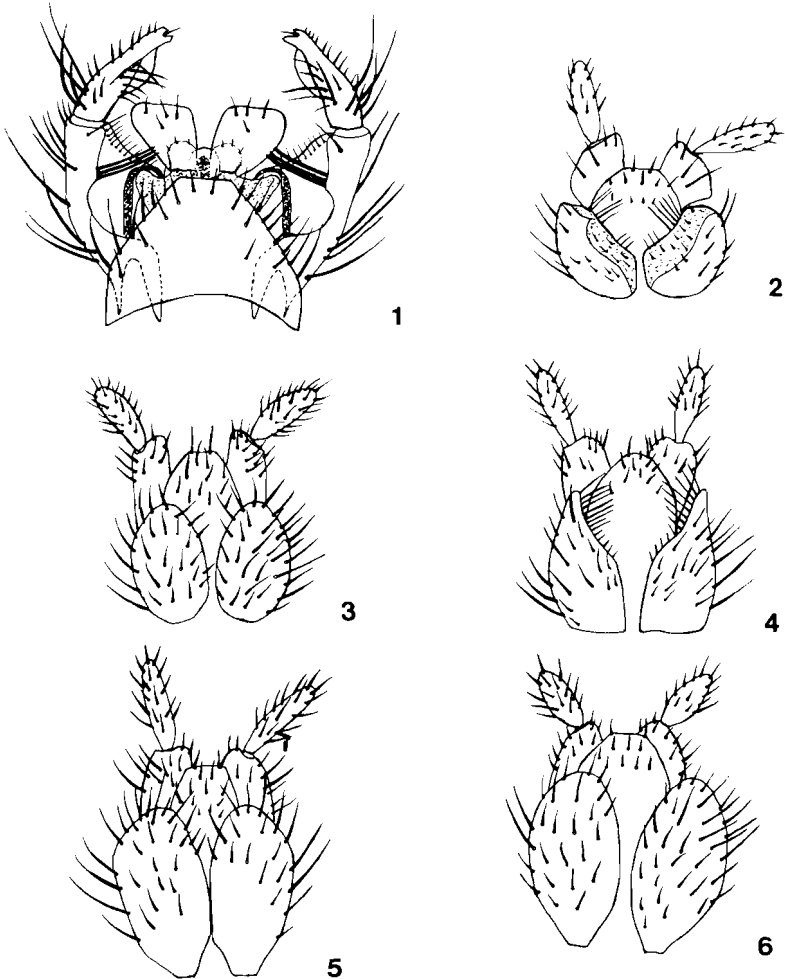
#### *M. aterrima* Stackelberg

The single male of *M. aterrima* was collected at 3,000' at Kinlochewe, Ross-shire. In some material (in alcohol), recently sent to me by Dr. R.C. Welch were four males and one female of *M. aterrima*, taken from pit-fall traps put down at 3,870' on Ben Macdhui, INV. (15.viii.68, 2 ♂ 1 ♀; 6.viii.69, 2 ♂). On reference to my own collection, I found that a female previously placed under *parva* was also *M. aterrima* (Torc Cascade, Killarney, Co. KERRY, 16.x.73).

The Scottish males do not appreciably differ from the description by Hutson & Kidd, but the antennae are dark brownish yellow to the base. The claspers agree with their figure, differing from typical *parva* in the longer

internal and apical bristling. The two females are lighter in colour than the males, being largely orange brown in colour, closely resembling both sexes of *parva* and the *parva* var. in this respect. Faintly marked dark thoracic stripes are present in the Irish specimen. The ovipositors are emarginate on the inner margins of their sternal lobes, bearing long internally directed bristling on this emargination while in *parva* these lobes are evenly rounded on this margin (see figs. 4 and 5).

*M. aterrima* may be variable in body coloration, but there is possibly a constant sexual difference. The species may, however, be identified by a



Figs. 1-6. — Genitalia of *Macrocera*: 1, *M. tusca* Loew, male genitalia, dorsal view. 2-6. — Ventral views of ovipositors: 2, *M. tusca* Loew; 3, *M. anglica* Edwards; 4, *M. aterrima* Stackelberg; 5, *M. parva* Lundstrom; 6, *M. parva* var. Hutson & Kidd.

combination of genitalic and venational characters. The length of vein  $R_4$  given as a specific distinction from *M. parva* does not hold good as in the present material it is variable, being longer than figured by Hutson & Kidd, in the Irish specimen almost as long and curved as in *M. parva*. Variation in the length of vein  $R_4$  occurs in other species of *Macrocera*, e.g. *M. stigmoides* Edwards.

*M. parva* Lundstrom variety

The material supplied by Dr. R.C. Welch also included examples of the "variety" of *M. parva* described by Hutson & Kidd (*op. cit.*). Four males and two females were present, originating as follows:—INV.: Cairngorm, 31.vii.68, 2 ♂; 24.vii.69, 1 ♀; 6.viii.69, 1 ♂; 10.ix.69, 1 ♀ (all at 3,800'); Ben Macdhui, 6.viii.69, 1 ♂ (at 3,870'). I also have a further male of this "variety" which I collected at PERTH.: Camghouran, 28.v.73, in pine woodland near Loch Rannoch (at about 800').

The known material of this form comprises seven males and if it represents a distinct species, the two females obtained at the same locality might be conspecific. I have found that there is a distinct difference in the size and shape of the cerci of these specimens from three other females of *M. parva* in my collection from ABER.: Dinnet N.N.R., 23.vi.74 in dry oak woodland; PERTH.: Den of Alyth, 24.vi.74, in mixed deciduous woodland by river; ARGYL.: Ben Lui N.N.R., 13.vii.74, by stream on open hillside (at about 1,800'). The first two were collected at comparatively low altitudes like the Camghouran male of the "variety". Since the Den of Alyth female was taken with a typical male of *parva* and so may be regarded as belonging to it, the difference in the cerci may be of taxonomic importance, suggesting an overlap in altitude between the two forms. Figs. 5 and 6 show ventral views of the ovipositors of these two forms of the female, tentatively assigned to *parva* and *parva* "var.". The *parva* females had the cerci noticeably elongate in the dry specimen, resembling *aterrima* in this respect. The two females from Cairngorm have shorter thicker cerci, otherwise agreeing with the typical specimens.

*M. parva* "var." and *M. aterrima* appear to be confined to the Scottish Highlands in Britain, while typical *M. parva*, considered to be restricted to hill country by Edwards (1925) is now known to be more widespread. The most southerly published record of which I am aware is from Cheshire (Kidd, 1959), but I have collected a male from HANTS: Leckford Estate, 7.vi.71, swept in carr in the valley of the River Test and have seen a male from Monk's Wood, HUNTS., 28.vi.71 (J.H. Cole). It may have been overlooked elsewhere in southern England.

*M. lutea* Meigen

Although widespread in Britain, *M. lutea* is much less frequent than *M. vittata* Meigen, with which it was confused prior to the work of Edwards (1925). I have found it from the following localities:—

BUCKS.: Chalfont, Pollard's Wood, in building, 5.viii.74, 1 ♂ (K. Merrifield). SURREY: Runnymede, 12.vii.70, 1 ♀ beaten from hawthorn hedge by pond (PJC). ARGYL.: Taynish, 10.vii.74, 1 ♂ in mixed woods (PJC). INV.: Feshie Bridge, 23.vi.74, 1 ♂ by wooded river bank (PJC).

*M. maculata* Meigen

From published records this distinctive species appears local in southern England (Herts, Suffolk, Cambs., Somerset). I can add only the following record.

SURREY: Runnymede, 5.vi.73, 2 ♂ beaten from hawthorn hedge near pond (PJC).

*M. fascipennis* Staeger

This remains little known in Britain. Edwards (1925) recorded single males from Matley Bog, Hants and Sutton Park, War. Kidd (1959) added Cotterill Clough, Cheshire. From these and the following, which is the first Scottish record, this rather strikingly marked gnat seems to have a liking for boggy ground in wooded areas.

ARGYL.: Glen Nant, 9.vii.74, 1 ♂ in boggy clearing in birch woods (PJC).

*Monocentrotia lundstromi* Edwards

F.W. Edwards (1925) described this species from a single male, collected on a tent roof at dawn in Northumberland. Subsequently (1938), he added records of specimens collected from 1932 to 1935 in light traps at Harpenden, HERTS., mentioning that one had been collected in "Manchester" in 1936. This was evidently a specimen from Stretford, 14.vi.34 (Kidd, 1959). Finally, a female was collected at Maer Wood, STAFFS.: 7.vii.36 (recorded by J. Edwards, 1951). Plassmann (1969) recorded a single male at a light trap in Germany, vii.69. There are specimens taken at M.V. light (BERKS.: Wytham Wood, 10.vi. and 28.vi.68, J. Brock) in the Hope Department. In view of the apparent predilection of *M. lundstromi* for the hours of darkness, it is of interest to record that I took a male of this curiously elusive species at Hambleden Great Wood, BUCKS., 6.vi.70, by sweeping chalk scrub on a sunny afternoon. I have also seen a male of *M. lundstromi* collected from a suction trap in Monks Wood N.N.R., HUNTS., 25.vi.71 by Mr. J.H. Cole. Mr. Cole informs me that he also took a female at Goring, OXON., 10.viii.64 and a male at Ilkley Moor, YORKS., 16.vii.73.

Edwards (1941) suggested that *Monocentrotia* Edwards might be a synonym of *Pseudoplatyura* Skuse (described from Australia), but Matile (1973) decided that because of structural differences between the types of these genera they should be maintained as distinct.

*Antlemon* Haliday in Loew

*Antlemon* Haliday in Loew, 1871

*Helladepichoria* Becker, 1908

*Antlemonopsis* Tollef, 1953, *syn. n.*

Edwards (1929) stated that the two species of *Antlemon*, a genus not known outside the Western Palaearctic, lacked bristles on the branches of the media and cubitus ( $M_1$  and  $M_2$ ;  $Cu_1$  and  $Cu_2$ ). This led Tollef (1953) to erect a new sub-genus *Antlemonopsis* for a single female specimen (possessing bristles on these veins) found by him in Belgium, which he described as *A. malmundariensis* Tollef. The thirteen males and five females of *Antlemon*

*servulum* Walker in my collection all have complete rows of microtrichia on these veins and examination of the series of *A. servulum* in the B.M. collection has shown no variation in this character; similarly, the bristles are obvious in specimens of the genotype *A. halidayi* Loew. Edwards' statement must have been due to an oversight.

The sub-genus *Antlemonopsis*, founded solely on the possession of microtrichia on these veins cannot therefore be tenable and I have placed it here as a synonym of *Antlemon* sensu stricto. *A. malmundariensis* is described as brownish yellow with dark central spots on the tergites. *A. servulum*, although usually darker in appearance, has a brownish yellow ground colour and some specimens are more yellowish, especially on the abdomen. Although the proboscis is normally about  $1\frac{1}{2}$  X height of head and *malmundariensis* is described as having a proboscis equal to the height of the head, I believe that it will prove conspecific with *A. servulum*.

Although published records of *A. servulum* are few, it appears not infrequent in my experience and is usually found on umbelliferous flowers in diffuse sunlight, e.g. along woodland tracks. Edwards (1913) recorded it from HANTS, CAMBS. and SUSSEX. Audcent (1949) added a record from SOM. I have (Chandler, 1966) recorded a capture in KENT and several specimens at Ardscull Mote, Co. KILD. (Chandler, in press). My other records are as follows:—

HANTS: Leckford Estate, 20.vi.70, 2 ♂ in beechwood, 4.vii.71, 1 ♀ in beechwood (AES); 4.vii.71, 1 ♀ in beechwood, 29.vi.74, 1 ♀ on *Chrysanthemum leucanthemum* L. flowers on chalk grassland (PJC); Ramsdell, 30.vi.73, 1 ♂ in mixed woods (PJC). KENT: Bromley, Fisher's Wood, 25.vi.67, 1 ♂; Dering Wood, 27.vi.71, 2 ♂ 1 ♀ at *Anthriscus* flowers in woodland margin (PJC). OXON: Cothill, 16.vii.72, 1 ♀ by woodland track (PJC). I. of W.: Freshwater, 14.vi.47, 1 ♂ (K.G. Blair).

#### *Orfelia* Costa (Sub-genus *Neoplatyura* Malloch)

*Orfelia* is essentially the group of species referred by Edwards (1925) to *Platyura* Meigen and *Isoneuromyia* Brunetti (all classified by him in 1913 as *Platyura*). The present accepted sub-generic divisions in this group were defined by Edwards (1929), who divided *Platyura* into twenty sub-genera; since then other sub-genera have been added and some of the originally included groups have been elevated to generic status. Laffoon (1965) suggested that Meigen's name *Platyura* should be applied to the genus for which Edwards used the name *Apemon* Johannsen and *Orfelia* Costa was the first available name to replace *Platyura* in the sense used by Edwards. *Neoplatyura* Malloch includes four British species, of which *N. biumbrata* Edwards has distinctive wing markings.

The keys Edwards (1925) used to separate the remaining three species of *Neoplatyura* require revision. The very distinct male genitalia of these species *N. flava* Macquart, *N. modesta* Winnertz and *N. nigricauda* Strobl were figured by Edwards (1913) and are the best specific characters.

*Neoplatyura* species are small gnats, 3-5 mm in length, yellow in ground colour and have few specific structural features other than those in the genitalia. Edwards separated *N. nigricauda* on the black apical tergites (6-8) in



contrast to the completely yellow tergites 1-5, but this character applies only to males. For *N. flava* and *N. modesta* he used the length of vein  $R_4$  relative to the distance of its tip from the tip of vein R on the costa (this distance said to be equal to  $R_4$  in *N. flava* but about  $2 \times R_4$  in *N. modesta*) but this character is variable, often differing in the two wings of the same specimen. Landrock (1927, 1940) and Seguy (1940) separate *N. flava* from the other species as having  $R_4$  reaching the costa at the mid-point or beyond between  $R_1$  and  $R_5$  but this appears to be in error as even in *N. modesta*  $R_4$  does not exceed a third of the distance from  $R_1$  to  $R_5$ . The figure of the male genitalia given by Landrock is copied from Edwards and there is no reason to suppose that the *flava* of these authors is a different species from the British one. Edwards (1913) stated that *N. flava* had a dark spot on the wing beneath the tip of vein  $R_5$ , but he believed that this was present only in the male. The female characters have, therefore remained obscure.

The present study is based on twenty-three males and nine females of the sub-genus *Neoplatyura*, apparently including both sexes of all three of the species (other than *N. biumbrata*). Three females possessed the dark wing spot in the same position as the male of *N. flava*. Their darker body coloration and occurrence in Scotland, where the other species have not been recorded, tend to confirm that these are females of *N. flava*. Thus the wing spot is present in both sexes of *N. flava* as it is in *O. (Urytalpa) ochracea* Meigen and can be used as a key character. The combination of characters in the other females examined suggests that four are *N. nigricauda* and two are *N. modesta*. The ovipositors of these three species are figured in ventral view (figs. 7-9). Their salient features are as follows:

#### *Orfelia (Neoplatyura) flava* Macquart

A dark oblong spot on the wing immediately below the tip of vein  $R_5$  present in all specimens and absent in the other two species. Thorax yellowish brown to dark reddish brown. Abdomen with basal two thirds or more of tergites dark brown, this darkening usually fainter on tergite 2 and in the middle of the other tergites; remainder yellow. Antennae darkened; basal flagellar segment not longer than 2nd and 3rd together; antennae not longer than head and thorax in either sex.

Vein  $R_4$  in  $\delta$  0.66 to equality with costal section  $R_4 - R_1$ ; in  $\varphi$  from 0.66 to 0.8 of this section.

#### *Orfelia (Neoplatyura) nigricauda* Strobl

Thorax yellow to orange brown. Abdomen in  $\delta$  with tergites 1-5 yellow, 6-8 black and hypopygium darker than in other species; in  $\varphi$  with basal half of tergites 2-7 brownish (sometimes less than half in case of tergite 7), the apical margins of these bands merging into the yellow ground colour and bands also usually divided by a narrow central yellow stripe at least on 2nd (or 3rd) - 6th tergites. Antennae as in *N. flava* but pale basally in one female specimen from Cuxton.

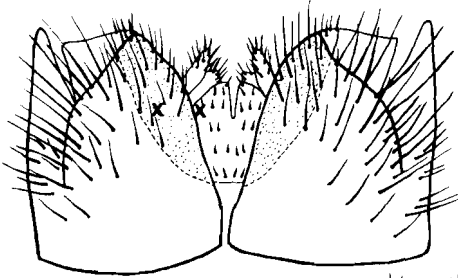
Vein  $R_4$  in  $\delta$  from 0.5 to 0.7 of costal section  $R_4 - R_1$ ; in  $\varphi$  from 0.6 to 0.8 of this section.

*Orfelia (Neoplatyura) modesta* Winnertz

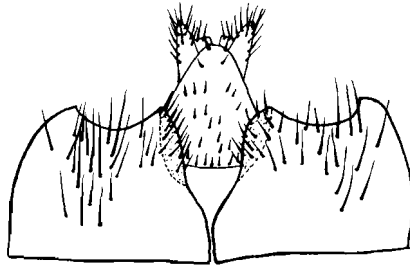
Thorax yellow to brownish yellow (in one female). Abdomen in ♂ all yellow but tergites 3-6 bear a pair of small round patches of dense black bristling which appear on superficial examination to be spots; in ♀ yellow with distinctly less than the basal half of each tergite brownish, these bands distinct on tergites 3-6, faint on 2 and 7. Antennae yellow at least basally, with first flagellar segment distinctly longer than 2nd and 3rd together; total antennal length greater than head and thorax together in ♂ although still less in ♀.

Vein  $R_4$  in ♂ (Bookham Common) 0.5 of costal section  $R_4 - R_1$  and ♂ (Monks Wood) 0.4 and 0.5 in two wings of specimen; in ♀ (Pond Wood) 0.4 and 0.5 in two wings of specimen; in ♀ (Wisley) 0.4 and 0.65 in two wings of the one specimen.

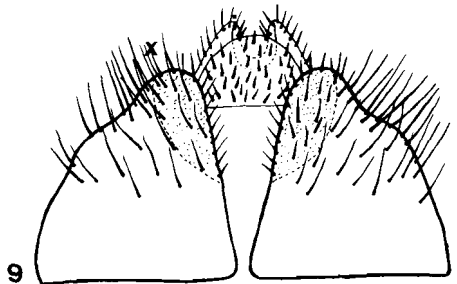
As there are few published localities for any *Neoplatyura*, the data from the 32 specimens examined of the above three species is given in full; a record of *N. biumbata*, previously unpublished, is also given.



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Figs. 7-9. — Ventral views of ovipositors of *Orfelia (Neoplatyura)* species: 7, *N. nigricauda* Strobl; 8, *N. modesta* Winnertz; 9, *N. flava* Macquart.

*O. (N.) flava* Macquart

This species has been more frequently recorded than any other British *Neoplatoryra* but all records I have seen are from England and Wales (Edwards, 1913; Morley & Atmore, 1915; Morley, 1920; Cheetham, 1921; Fordham, 1945; Kidd, 1959). My own captures include Scottish specimens.

BERKS.: Windsor Forest, 3.viii.74, 1 ♂ by woodland stream (PJC). SURREY: Chobham, Gracious Pond, 5.viii.67, 1 ♂ in marshy woodland (PJC); Devil's Punchbowl, 30.vii.74, 5 ♂ (AES). SUSSEX: Durford Heath, 25.viii.74, 3 ♂ in mixed woodland (PJC); Amber-sham Common, 28.vii.74, 1 ♀ wooded heath (PJC). INV.: Cairngorm N.N.R., 5.viii.72, 2 ♂ in open pine forest (PJC); Feshie Bridge, 5.vii.72, 1 ♀ by wooded river bank (PJC). SUTHERLAND: Invernaver, 28.vii.72, 1 ♀ in alderswamp (PJC).

*O. (N.) nigricauda* Strobl

I know of only five recorded localities for this species (Edwards, 1913; Audcent, 1949), all from southern England and Wales. There are ♂ specimens in the B.M. collection from CORN., DEVON., HANTS, HERE., HERTS., SURREY and GLAM. In my experience, it is not scarce although usually taken singly.

BERKS.: Windsor Forest, 3.viii.74, 1 ♂ by shaded stream bank; 21.vii.73, 1 ♀ (PJC). HANTS: Leckford Estate, 26.viii.72, 1 ♂ in mixed woods near Longstock House (PJC). HUNTS.: Monks Wood N.N.R., 14.viii.72, 1 ♂ ex M.W. Service's suction trap (J.H. Cole). KENT: Bromley, Oakley Farm, 7.x.62, ♂ ♀ in copula flying along field hedge; 10.ix.72, 1 ♀ (PJC). Cuxton, 3.ix.69, 1 ♀ (K.C. Side); Blean Woods N.N.R., 3.ix.67, 1 ♂ in mixed woodland (PJC). OXON.: Bix Bottom, 21.vii.73, 1 ♂ in beech wood (PJC). SURREY: Chobham Common, Gracious Pond, 8.ix.74, 1 ♀ (PJC); Wisley Common, 26.viii.73, 1 ♂ by ponds (PJC). SUSSEX: Inholm's Copse, 26.vii.74, 1 ♂ in mixed woodland (PJC); Goose Green, 29.vii.74, 1 ♂ in marshy woodland (PJC).

*O. (N.) modesta* Winnertz

There are five published records (Edwards, 1913; Audcent, 1949; Kidd, 1959, 1964) previous to my capture of the single male beaten from the foliage of young birch on the Plains, Bookham Common, SURREY, 15.viii.71 (Stubbs, 1972). I have seen one further male from Monks Wood N.N.R., HUNTS., 25.viii.72 (suction trap) (J.H. Cole), and two females from KENT: Chislehurst, Pond Wood, 10.ix.1972 flying over leaf litter under chestnuts (PJC); SURREY: Wisley Common, 2.ix.65 (AES).

*O. (N.) biumbrata* Edwards

A more distinctive species but rarely recorded. Edwards (1913) gave two records from Padstow, CORN. and Studland, DORSET. Other localities subsequently recorded are Dinas Head, PEMB. (Grensted, 1944); West Town, SOM. (Audcent, 1929; 1949); Tesson Mill, JERSEY (Smith, 1958) and Tile Hill Reserve, near Coventry, WAR. (Saunt, 1940). Apart from the last locality, the species appears to prefer coastal districts, which is confirmed by a specimen I found in the K.G. Blair collection taken on 19.ix.1948 at Freshwater, I. o. W. (abdomen missing) and by another capture by L.W. Grensted at Mevagissey, CORN., 6.ix.41 (Hope Department).

*Orfelia* (Sub-genus *Pyratula*) *zonata* Zetterstedt

Published records are from England north to Lancs. and Yorks., but my captures are from localities further north.

CUMB.: Thornthwaite Forest, 18.vi.69, 1 ♂ on damp rocks in coniferous forest. ABER.: Glentanar, 23.vi.74, 1 ♂ in oak forest. PERTH.: Strathbaan, 25.vi.74, 1 ♀ in mixed woodland (all PJC).

*Orfelia* (Sub-genus *Urytalpa*) *ochracea* Meigen

This species appears occasional throughout Britain. I have usually found it singly but on 28.v.67, I observed both sexes in numbers (3 ♂, 5 ♀ feeding at flowers of *Anthriscus sylvestris* (L.) Hoffm. below a field hedge in the evening (Hedgerley, BUCKS.). Subsequently, I took two females at *Anthriscus* flowers by the Thames at Windsor, BERKS., 30.v.69. The flower feeding habit of this species has long been known as Morley (1920) recorded it as rare among *Asindulum flavum* Winnertz (a common umbel feeding gnat). I am able to add the following records to the above.

KENT: Bromley, Scrogginhall Wood, 28.v.72, 1 ♂ on hawthorn foliage (PJC). I. o. W.: Freshwater, 29.v.47, 1 ♀; 20.v.52, 1 ♂ (K.G. Blair). LANCS.: Turton Tower, 17.vi.71, 1 ♀ by shaded stream (PJC).

*O. (Urytalpa) atriceps* Edwards

Edwards (1913) recorded this gnat from Goathorn, Dorset, 7.vi.07, 1 ♂ (J.W. Yerbury) and later (1925) added Farringford, I. o. W., 26.iv.21, 1 ♂ (F. Jenkinson). No other published records are known to me but there are specimens in the Hope Department from OXON.: Wychwood, 1.vi.69, 3 ♂ (D.M. Ackland) and in the B.M. from S. DEVON: Edge Barton, 6.vi.57, 2 ♂; Rousdon, 8.vi.37, 5 ♂ (all F.W. Edwards), YORKS.: Colt Park, 19.vi.30, 1 ♂ (C.A. Cheetham). *U. atriceps* was taken recently in two areas on the Leckford Estate, HANTS., on 4.vi.72, 1 ♂ was swept from a hedge bordering chalk downland (AES) and 1 ♂ was taken at the edge of carr woodland adjoining the River Test (PJC).

*O. (Orfelia) tristis* Lundstrom

Added to the British list by Edwards (1941) on specimens from Letchworth, Herts. and Barton Mills, Suffolk; no other localities have been published but there are specimens in the B.M. from London (in Museum, 25.vi.53, 1 ♀), KENT (Beckenham, 8.vii.59, 1 ♂ on window) and S. HANTS (Totton, in garden, 21.vi.52, 1 ♂; 30.vi.53, 1 ♀). The species is widespread in various habitats on the Leckford Estate, N. HANTS. At first it was thought to favour chalk grassland and scrub but later it turned up in more diverse (but usually open sunny) situations. The following records can be added.

HANTS: Leckford Estate, 19.vi.70, 1 ♂ (AES); 21.vi.70, 1 ♀ (PJC), these both in scrubby chalk grassland; 4.vii.71, 1 ♂ in open chalk grassland (AES); 29.vi.74, 1 ♂ in chalk scrub (PJC); 29.vi.74, 1 ♂ on open river-bank (PJC); 30.vi.74, 1 ♂ on wooded river-bank (PJC); 30.vi.74, 1 ♂ feeding at *Heracleum* flowers along disused railway track (PJC). KENT: Sittingbourne, Woodstock, 29.vi.61, 1 ♂ (J.C. Felton); Chatham, 10.vi.67, 1 ♀ at light in bakery in town (PJC). OXON.: Goring-on-Thames, 24.vi.64, 1 ♂ (J.H. Cole).

*Keroplatus testaceus* Dalmann

A rather large striking brownish yellow gnat with partly darkened wing tips (10 mm long, 14 mm in wing span), *K. testaceus* was known to Edwards (1913; 1925) only from the New Forest. Morley (1920) recorded it from two places in SUF. Audcent (1949) mentioned a capture at Shepton Mallet, SOM. Several recent captures suggest a wider distribution in southern England. It is more easily obtained by rearing than as an adult; the larvae form silk nets over the surface of bark encrusting fungi. At Bix Bottom they were accompanied under the bark of adjacent logs by those of *Cerotelion lineatus* Fabricius. *C. lineatus*, a smaller but more strikingly marked species, is commoner and more widespread in Britain than *K. testaceus*, occurring at least as far north as LANCS. and YORKS. and also in Ireland (Chandler, in press), but is again more easily found in the larval state. Unpublished records of *K. testaceus* outside the New Forest are as follows:—

BERKS.: Windsor Forest, 1 ♀ reared 26.viii.73, larva collected 26.vii.73 on beech log (AES, B.M. collection). HANTS: Leckford, 13.vii.73, 1 ♂ by rotten stump in carr (AES). HUNTS.: Grafham Water, 6.x.68, 1 ♂; Monks Wood, 11.viii.72, 1 ♂; Brampton, 25.viii.74, 1 ♀ (J.H. Cole). OXON.: Bix Bottom, 19.ix.72, 1 ♂, 1 ♀ flying about an old elm log covered with a growth of *Stereum* (PJC). Goring-on-Thames, 10.ix.59, 1 ♂ (J.H. Cole); 25.x.54, cocoon under log on grassy hillside (H. Scott, B.M. collection). Wytham Hill Copse, 8.ix.52, 1 ♂ reared from cocoon under wet oak log (R.B. Freeman, Hope Department). Oxford University Park, 1 ♀ reared 22.ix.69, larvae collected 16.ix.69 in threads on *Trametes mollis* (Sommerf.) Fr. (R.E. Evans, B.M. collection). SUSSEX: Harting Downs, 26.vii.74, 1 ♂ in beech woodland (A.G. Irwin). WAR.: Edge Hill, ix.31, 1 ♂ reared from rotten wood, with cocoon (R.E. Evans, B.M. collection).

## ACKNOWLEDGEMENTS

I thank Messrs. A.E. Stubbs, J.H. Cole, G. Hosie, J.C. Felton, K. Merrifield and Dr. R.C. Welch for the opportunity to examine specimens. Mr. A.M. Hutson kindly read the manuscript and discussed several points.

## ABSTRACT

The recent key to some species of *Macrocera* by Hutson & Kidd (1974) is discussed with reference to new material; the characters by which *M. tusca* Loew may be separated from the species included in this key are given. The female genitalia of four species in the genus *Macrocera* and of three species in *Orfelia* sub-genus *Neoplaturya* are figured; the female specific characters in *Neoplaturya* are discussed. The sub-genus *Antlemonopsis* Tolle 1953 is synonymised with the genus *Antlemon* Haliday in Loew 1871. New locality and rearing records are given for some species.

## REFERENCES

- Audcent, H.L.F., 1929, Bristol Insect Fauna. Diptera (II), *Proc. Bristol Nat. Soc.* 7 (2): 120-7; 1949-50, Bristol Insect Fauna. Diptera Orthorrhapha, *Proc. Bristol Nat. Soc.* 27 (5): 409-70. Bukowski, W., 1934, Neue und abweichende Formen von Pilzmücken (Diptera, Fungivoridae) aus der Krim, *Konowia*, 13: 183-92. Chandler, P.J., 1966, *Leptomorphus walkeri* Curt. and other Mycetophilidae (Diptera) in Kent, *Entomologist's*

*Rec. J. Var.* 78: 80-1; (in press), A preliminary list of the fungus gnats, (Mycetophilidae) of Ireland, *Proc. R. Ir. Acad.* **Cheetham, C.A.**, 1921, Additions to Yorkshire Diptera list, *Naturalist* 1921: 409-12. **Edwards, F.W.**, 1913, Notes on British Mycetophilidae, *Trans. ent. Soc. Lond.* 1913: 334-82; 1925, British fungus gnats (Diptera, Mycetophilidae) with a revised generic classification of the family, *Trans. ent. Soc. Lond.* 1924: 505-662; 1929, Notes on the Ceroplatinae with descriptions of new Australian species (Diptera, Mycetophilidae), *Proc. Linn. Soc. N.S.W.* 54: 162-75; 1938, Notes on the Mycetophilidae (Diptera) obtained by Dr. C.B. Williams in a light trap at Harpenden, Herts, *J. Soc. Br. Ent.* 1: 199-202; 1941, Notes on British fungus gnats (Dipt., Mycetophilidae), *Entomologist's mon. Mag.* 77: 21-32; 67-82. **Edwards, J.**, 1951, A list of Staffordshire Diptera. Part I, *Trans. ann. rep. Staffs. Fd Club* 85: 31-47. **Fordham, W.J.**, 1945, A preliminary list of the Diptera of Northumberland and Durham (excluding the Cecidomyiidae), *Trans. nat. hist. Soc. Northumb.* 7: 197-265. **Grensted, L.W.**, 1944, Records of Diptera and other insects from Dinas Head, Pembrokeshire, *Entomologist's mon. Mag.* 80: 201-3. **Hutson, A.M. & Kidd, L.N.**, 1972, Notes on British Bolitophilinae, including three species new to Britain, *Entomologist* 104: 219-26; 1974, Notes on British *Bolitophila*, *Diadocidia* and *Macrocera* (Diptera, Mycetophilidae), *Entomologist's mon. Mag.* 110: 27-39. **Kidd, L.N.**, 1959, (in Kidd, L.N. & Brindle, A.) The Diptera of Lancashire and Cheshire. I. Nematocera, *Lancashire & Cheshire Fauna Committee*, 15-107; 1964, The Diptera of Lancashire & Cheshire. Part I (Supplement), *Lancashire & Cheshire Fauna Committee*, 34th Report, 1-6. **Kidd, L.N. & Ackland, D.M.**, 1970, *Mycetophila bohemia* Laštovka and *Dynatosoma nigromaculatum* Lundst. new to Britain and notes on other little known fungus gnats (Diptera, Mycetophilidae), *Entomologist* 103: 10-17. **Laffoon, J.L.**, 1965, Family Mycetophilidae (Fungivoridae) (in Stone, A., Sabrosky, C.W. et al.). A Catalog of the Diptera of America north of Mexico, Agr. Res. Ser., U.S. Dept. Agric., 196-229. **Landrock, K.**, 1927, Fungivoridae (Mycetophilidae) (In Lindner, E.), *Fliegen palaarkt. Reg.* 8: 1-195; 1940, Pflanzmücken oder Fungivoridae (in Dahl, F.), *Tierwelts Deutschlands* 38: 1-166; **Jena. Lundström, C.**, 1913, Neue oder wenig bekannte europäischen Mycetophiliden. III, *Annl. hist.-nat. Mus. Natn. hung.* 11: 305-22. **Madwar, S.**, 1935, The biology and morphology of the immature stages of *Macrocera anglica* Edwards, *Psyche* 42: 25-34. **Matile, L.**, 1970, Capture en France de *Manota unifurcata* Lundström (Diptera, Mycetophilidae), *Cah. Nat., Bull. N.P.* 26: 59-60; 1973, Diptères Mycetophilidae du Cameroun et de République centrafricaine. IV. Keroplatinae (2e note), *Bull. Inst. fr. Afr. noire* 35: (ser. A, no. 4): 917-46. **Morley, C.M. & Atmore, E.A.**, 1915, The Diptera of Norfolk and Suffolk, Suppl. to *Trans. Norfolk Norwich Nat. Soc.* 1915: 1-180. **Morley, C.M.**, 1920, Collecting Fungus Gnats, *Entomologist* 53: 83-4. **Munroe, D.D.**, 1974, The systematics, phylogeny and zoogeography of *Symmerus* Walker and *Australosymmerus* Freeman (Diptera, Mycetophilidae), *Mem. ent. Soc. Can.* 92: 1-183. **Plassmann, E.**, 1969, *Monocentrotia lundstromi* Edw. (Dipt., Fungivoridae), neu für die Deutsche Fauna, *Mitt. dt. ent. Ges.* 28: 59. **Saunt, J.W.**, 1940, Diptera in the Tile Hill Nature Reserve, *Proc. Coventry Dist. nat. Hist. scient. Soc.* 21 (1): 15-20. **Séguy, E.**, 1940, Diptères Nématocères, *Faune Fr.* 36: 1-368. **Smith, K.G.V.**, 1958, The Diptera of Jersey, Channel Isles, *Entomologist's Gaz.* 9: 203-11. **Stubbs, A.E.**, 1971, Diptera list in Bucklebury Common, *Env. Study Group Survey* 2: 3-34 (18-24), Borough Museum, Newbury; 1972, Bookham Common, Surrey - 15th August 1971, *Proc. Brit. ent. nat. Hist. Soc.* 4: 126-27. **Tollet, R.**, 1953, Notes sur les Diptères Mycetophilidae de Belgique. II. Keroplatinae, *Bull. Annl. Soc. ent. Belg.* 86: 32-3.

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March 27th, 1975.

Reprinted from

ENTOMOLOGIST'S MONTHLY MAGAZINE

Volume 113, January-April 1977