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A PRELIMINARY LIST OF THE FUNGUS-GNATS (DIPTERA, MYCETOPHILIDAE) OF IRELAND

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Abstract

An account is given of the present information available on the occurrence of Mycetophilidae in Ireland. This is based on material in museum and private collections, principally that of the author, while existing published records referring to about fifty species are evaluated. One hundred and sixty-five species are accepted as Irish but the limited data even for common species precludes any conclusions on distribution within Ireland. Although many additional species will probably be found in Ireland with further collecting, this is considered the time to give an introductory account. A general account of the habits and biology of fungus-gnats and a summary of taxonomic works relevant to the Irish fauna are also included by way of an introduction. The name *Leia nasuta* Haliday, previously unrecognised, is shown to be the valid name for the species misidentified as *Boletina lundbecki* Lundström by Edwards.

Introduction

The fungus-gnats are a relatively large and diverse group of Nematocerous Diptera with 410 species already recorded from the British Isles and about a further ten awaiting publication. The Sciaridae, once placed as a sub-family of the Mycetophilidae are excluded from the present list because of the unsatisfactory taxonomic state of the group. Little has been published hitherto on the Irish species of Mycetophilidae and there is great scope for study of this part of the Diptera in Ireland.

Most fungus-gnats are woodland insects, stockily built gnats with large coxae and often strong bristles on the legs and body. Although easily recognised as a group they exhibit a wide range in form and habits. An association with fungi and/or rotten wood, however, runs through most of the taxa (sub-families and tribes) into which the family is divided. They are collected in the greatest numbers by sweeping in damp, densely-shaded spots such as the overhanging banks of woodland streams or around rotting logs and stumps; most species tend to shelter in such spots in dry periods or during hot days. In humid weather or at night they range more widely and some species are attracted to light. Ovipositing females may be found about the fruiting bodies of the larger fungi, in which the larvae may also be easily obtained. Fungus-gnats may be collected at any time of the year but are most abundant in the autumn months when fungi are more prolific, while there is an earlier flush in late May – early July.

Some Mycetophilidae have more specialised habits. The species of *Leia* usually shelter amongst the foliage of broad-leaved trees from which they may be beaten,

while both they and several other genera commonly visit flowers. The well-known flower feeders are diurnal and usually visit Umbelliferae but sometimes Compositae or other families. Certain Keroplatines (e.g. *Asindulum flavum* and *Antlemon servulum*, which are often observed on umbels at woodland margins in diffuse sunlight) have a long proboscis modified for probing flowers but some relatives without this advantage also feed at flowers. Some species not normally thought of as flower visitors are recorded below from ivv flowers.

Many of the British fungus-gnats have been reared by Edwards (1925), Buxton (1960) and others, but only about a quarter of the British fauna are known to feed in fungus fruiting bodies. Many others develop in rotten wood, probably feeding on fungal mycelium while others feed on bark encrusting fungi. A few (*Platurocypta* species and *Mycetophila vittipes*) develop in Myxomycetes and at least one *Boletina* develops in liver-worts. The larvae of the Keroplatinae form silk webs over the surface of fungi, bark, etc., and are known to supplement their diet of fungal spores with small insects caught in their webs. Many Sciophilinae also form webs on the surface of hard Polypores but they probably feed only on spores. A few of the latter sub-family develop in the nests of birds and mammals.

The larvae of Bolitophilinae and most of the Mycetophilinae do, however, develop internally in fungi, affecting any part of the tissue. Development is rapid especially where the fungus is itself ephemeral and there may be several generations of the gnats per year, according to the weather conditions. Rearing is, however, best accomplished when the larvae are mature as they often require living fungus tissue; pupation (frequently in a silk cocoon) may be in the fungus but where the fungus is deliquescent it takes place in the ground. Few fungus-gnats appear to be monophagous, i.e. restricted to a single fungus food-plant, and many common species are certainly polyphagous although often selecting only soft or hard fungi. The development of a large proportion of the family, including some entire genera, is still unknown and there is much opportunity for adding to knowledge in this field.

The first person to devote much attention to the study of Mycetophilidae in Britain was F. Jenkinson who (1908) published some results of his investigations. It was under his influence that F. W. Edwards took up the group and brought knowledge of the British fauna up to date in 1913. In 1925 he published a thorough revision of the world sub-families and genera which has remained the basis for all later work on the family; the excellent account of the British species incorporated in the latter work was supplemented by some of Edwards' later papers (1929a, 1940) re taxonomic changes; 1926, 1927, 1932, 1933 and 1941 re additions to the British list). Since Edwards' death work on the British fungus-gnats has been progressing slowly, although more workers are now taking an interest in the group. Papers including additions to the British list after 1941 are as follows: Freeman (1956), Kidd (1955, 1969), Kidd and Ackland (1969, 1970a, 1970b) and Hutson and Kidd (1971, 1974). Kidd (1962) also deals with some points of taxonomic importance. With respect to the genus Mycetophila the Nearctic revision by Laffoon (1957) and papers relating to species-groups by Lastovka (1963, 1972) and Matile (1963) are important. The generic revision of the Tribe Exechiini by Tuomikoski (1966) has been generally adopted and is followed here. The recent works by Matile on the

French fauna are also useful although not directly relevant; the revision of *Dia- docidia* (Laštovka and Matile 1972) should, however, be mentioned.

Identification can be made with comparative case as far as the generic level or to species groups within the larger genera, using the keys published by Edwards in 1925 in conjunction with his supplementary notes published posthumously in 1941. Within species groups, however, identification is often dependent solely on the structure of the large and complicated male genitalia, which are highly characteristic for each species. Female genitalic structure is also useful but less work has been done on it and differences are usually smaller between closely related species.

Illustrations of male genitalia of many species are provided in the works of Edwards but where a good figure existed already in the continental literature he did not provide one. Consequently it is necessary to consult a large number of papers scattered in continental journals. The account of the Palaearctic species by Landrock (1927) includes many figures but these are poorly reproduced and the work is now well out of date; his later work on the German fauna (1940) included species described in the intervening period and better figures of many but there is no up-to-date comprehensive work on the western European species. Nevertheless, despite all these difficulties reasonably accurate determinations may be made of the majority of British species at least in the male.

Previous and Current Work on the Irish Mycetophilidae

Although more than fifty species of this family have previously been recorded from Ireland, most of these are due to the works of Haliday (1833) and of Walker (1856), the latter based chiefly on Haliday's material. There is also a MS list of Irish insects compiled by Haliday *circa* 1855, of which Dr. C. E. O'Riordan of the National Museum of Ireland, Dublin, kindly allowed me to make a copy. These three works include mention of eighteen, thirty-nine and forty-one species from Ireland respectively, but in the MS list only twenty-eight are indicated as certainly Irish and some species recorded by Walker are omitted altogether. Differences between the three accounts are discussed under the species concerned.

The state of knowledge of Mycetophilidae at the time Haliday was working was very unsatisfactory and while Haliday was a careful worker with a good appreciation of specific distinctions no work had then been done on the genitalic structure. It has not, therefore, been possible in all cases to decide accurately the species to which a name used by these authors refers. Fortunately a large part of Haliday's collection survives in the National Museum of Ireland, Dublin (hereafter referred to as Dublin Museum), and study of this has been helpful in assessing the value of his records. Jenkinson (1908) and Edwards (1925) commented on Haliday's material with respect to particular species and the Haliday collection was studied by Edwards prior to his revision of the British species. Where Irish specimens exist in the Haliday collection (although in most cases only the name of the country is given) they are mentioned under the relevant species below.

A few more recent authors have contributed records of Irish fungus-gnats (Yerbury 1902, Grimshaw 1912, Morley 1920, Edwards 1929b, Edwards 1941, Hazelton 1974) but only six species were added by them. Museum collections do not contain many specimens of Irish origin but an endeavour has been made to

take all available material into consideration. The Dublin Museum contained fiftysix species of Mycetophilidae, chiefly unlocalised Haliday specimens but also some collected by J. N. Halbert, W. Ruttledge and others. The British Museum (Natural History) also contained few Irish Mycetophilids but these belonged to thirty-eight species; the largest part of these were collected by F. W. Edwards in the Killarney district, v. 1929 (referred to in his 1929 paper cited above) but specimens originating with B. P. Beirne, R. L. Coe, J. J. F. X. King and most recently (vi. 1970) R. I. Vane-Wright were also present. A handful of specimens collected by A. W. Stelfox were kindly made available by the Smithsonian Institution, Washington, D.C. A few specimens have been sent to the author by Dr. M. C. D. Speight and one interesting addition to the Irish list was provided by miscellaneous Diptera collected by Dr. M. G. Morris in the Burren, vii. 1971 (*Exechia pseudofestiva* Lack.).

Another batch of recent material of Irish Diptera which the author has been able to examine is being assembled at the Ulster Museum, Belfast, where R. Nash, A. Irwin and C. Reid are actively forming a Diptera collection; this included twentyseven species of Mycetophilidae, among them the first Irish specimens of Orfelia (Urytalpa) ochracea Mg., Coelosia flava Stg, Trichonta melanura Stg. and Platurocypta testata Edwards. The largest material of Irish Mycetophilidae available for examination was, however, collected by the author during a series of visits to various parts of the country from 1968 to 1973. Although most of these visits were during or after dry spells when fungi were few and conditions were often not propitious for fungus gnats, at least 127 species were obtained and these naturally provide many additions to the Irish list as well as confirmation of the occurrence of some species recorded by earlier authors.

From his examination of specimens from all the sources listed above the author has been able to include 165 species in the present list, i.e. about 40% of the British fauna. As so many of these species are being recorded on the basis of very few specimens, it appears probable that many additions leading to a much larger total Irish fauna can be expected.

The Localities Sampled during the Author's Visits to Ireland

The author has made six collecting visits to Ireland, of which the dates and principal regions visited are as follows :---

19.ix 21.ix.1968	Wicklow only.
27.vi. – 12.vii.1969	Waterford, Cork, Kerry (until 4.vii).
	Wicklow, Kildare, Wexford (5.vii onwards).
5.v 24.v.1970	Down, Antrim, Tyrone (5-9.v).
	Leitrim, Roscommon, Sligo, Westmeath $(10-15.v)$.
	Clare, Galway (16.v 22.v).
	Wicklow (24.v).
10.x 17.x.1970	Wicklow (collecting only on 11.x).
8.vii 18.vii.1971	Wicklow, Dublin (10.vii).
	Leix, Kildare, Wicklow (11.vii).
	Dublin (12.vii and 17 vii).
	Louth, Meath, Monaghan, Armagh (15 – 17.vii).
13.x 20.x,1973	Cork (14.vii). Kerry (15 - 17.vii).
	Kildare (18.vii). Wicklow, Wexford (20.vii).

In all 142 locality samples (including duplication on different dates) were taken. Although concentration was given to wooded sites wherever possible, many areas collected were more or less open ground, often heavily grazed and unsuitable for Mycetophilidae. Also some localities which might have been productive for this family were visited at unfavourable times either due to date or to weather conditions. Of the 142 samples only sixty-five included fungus-gnats (these relating to fifty localities which are listed and briefly described below). Only forty-four samples (relating to thirty-five localities) included more than one species of mycetophilid. Certain localities were evidently rich in species of this family and these are usually deciduous woodland sites relatively undisturbed by grazing and are the same areas which are also rich in other groups of woodland insects. It should be noted, however, that most dipterous families were collected during these visits and concentration was given to fungus-gnats only when they were noted to be numerous so that they were probably under-collected in most localities.

Glendalough stands out as the most productive locality (fifty-seven species) and this may be due in part to the author's several visits to that area at differing times of the year but he has usually returned there whenever possible because of its high productivity in most groups of Diptera. The Killarney district has the second best list (forty species) but these are from diverse areas, no one locality producing more than eighteen species. The only other localities worth noting are Ardscull Mote in County Kildare and two woods in the Kenmare district of Kerry. Ardscull Mote is particularly interesting as it is a small entirely dry woodland site and has produced several dry woodland species not yet found elsewhere in Ireland.

wicklow: 76 species (wi)

(1) Glendalough (GL): oak forest both around the Lugduff brook, above and below the Poll an Easa waterfall (PE) and along the Green Road at the base of a slope clad with forest (GR). In the first area sweeping boggy ground by the stream and about ferns, boulders, etc., in the second flushes and overhanging ledges providing shelter (57 species). (All figures in brackets refer to numbers of species obtained).

Visits on 16.ix.1968 (PE, 15); 20.ix.68 (GR, 11); 8.vii.69 (PE, 8; GR, 9); 24.v.70 (PE, 6; GR, 13); 11.x.70 (PE, 4; GR, 6); 10.vii.71 (PE, 13); 20.x.73 (PE, 12).

(2) Glendalough State Forest (GSF): slopes above the Avoca river on east side of road just before fork to Glenmalure when approaching Laragh from Arklow. Mature oak woodland with ground flora mainly *Vaccinium* with some bracken. Sweeping the *Vaccinium* was very productive of Diptera. 17.ix.68 (9); 10.vii.71 (1).
(3) Glenmalure (GM): scrub on rocky ground below waterfall behind ruined farmhouse on N.E. side of road opposite small conifer plantation. 16.ix.68 (5).

(4) near Aughrim river (AU): deciduous woodland by foot-path off road from Aughrim to Woodenbridge opposite Aughrim river from which mature ash woods rise up a steep slope. 16.ix.68 (6).

(5) Glenmacnass (GN): open ground by waterfall. Sweeping marsh and bog vegetation around runnels and grass amongst large boulders strewn about at head of glen. 17.ix.68 (2).

(6) Glen of the Downs (GD): mixed deciduous woods, oak, beech, rowan on eastern side of this densely wooded defile. Steep, fairly dry slopes. 18.ix.68 (1); 11.vii.69 (1); 11.x.70 (3).

(7) near Redcross (RC): mixed deciduous woods, sweeping about a woodland stream flowing under the road. 18.ix.68 (5).

(8) by Lacken Reservoir (BLR): on shore immediately north of Blessington Bridge. Reed beds grading to grass heath and meadow on higher ground, a few willows near shore. 15.ix.68 (1 species, *Brevicornu griseicolle*).

(9) Glencree (GG): vicinity of the Grotto, with shady corners and wooded surroundings, near banks of the Glencree river below St. Kevin's Barracks, 7.vii.1969 (1 species, *Macrocera vittata*).

(10) Poulaphouca (PP): beechwoods on steep slope overlooking river. 11.vii.69 (1 species, Mycetophila curviseta).

(11) Powerscourt Deer Park (PD): mixed deciduous woods by a stream (the more open ground here and nearer the waterfall produced no fungus-gnats). 10.vii.71 (11).

(12) near Dunlavin (DL): mature beechwoods, sweeping around dead wood and beating bushes. 11.vii.71 (1 species, $Mycetophila \ signatoides \ group \ P)$.

waterford: 1 species (wa)

(13) near Dungarvan (DG): hawthorn hedge bordering cattle-grazed meadow, 2-3 miles east of town. 27.vi.69 (1 species, *Leia fascipennis*).

CORK : 10 species (CO)

(14) Tobar Ghobnatan (TG): marshy field grading into open wooded ground close to stream below St. Gobnat's shrine. 28.vi.69 (2).

(15) Glengarriff State Forest (GG): mixed deciduous woods, mainly oak forest with marshy flushes and plenty of ferns. 4.vii.69 (4).

(16) Dunamarc Falls (DF): clumps of mixed deciduous woods and scattered trees leading down to waterfall. 14.x.73 (6).

KERRY: 61 species (KE)

(17) Rossacroonaloo Wood (RL): mixed deciduous woods near River Loo, sweeping near wooded stream banks. 29.vi.69 (1 species, Acnemia nitidicollis).

Monk's Wood, Muckross (MW): mature deciduous woodland, mainly beech, surrounding Muckross Abbey end of Dinis Road. 30.vi.69 (none found); 2.vii.69 (1); 16.x.73 (13); 17.x.73 (2).

Dinis Road, Muckross (DR): partly wooded, partly marshy ground, in great part choked with *Rhododendron*. 2.vii.69 (2).

Torc Cascade (τc): lower slopes below the waterfall, more or less clothed with deciduous woodland, bouldery ground with ferns. 30.vi.69 (none found): 16.x.73 (7).

Woods north of Lough Leane (LL): rather dense mixed woodland with boggy patches. 17.x.73 (4).

Derrycunihy (DC): lane bordered with *Rhododendron* leading to bridge over link between lakes; deciduous woodland with some clearings and overhanging banks, beyond bridge. 16.x.73 (18).

(19) Dromore Forest (DF): beechwoods impinged upon by conifer plantations. Plenty of fungi about under beech trees. 15.x.73 (18).

(20) Drominahassig waterfall woods (DH): mixed deciduous woods, oak and birch with many flushes. Plenty of fungi observed. 15.x.73 (18).

(21) near Kenmare (κM) : old hedges overhanging a sheltered bank in an area otherwise composed of grazing meadows on hillside. Some fungi present on the bank. 15.x.73 (6).

KILDARE : 26 species (KD)

(22) Ardscull Mote (AM): a large earth mound with ditch around summit, the site of a Norman fort, now clothed with mature beech trees, contained by a low stone wall at base, in otherwise typically-Irish undulating country composed of hedged grazing fields. The fringes of the beechwood have a shrub layer of privet and hawthorn; plenty of hogweed and herb robert in parts of herb layer but wood sanicle dominating a large part of ground; stone wall at the base ivy-clad and ivy flowers attractive to some Mycetophilidae on 18.x.73 when fungi were also plentiful under beech. 10.vii.69 (1); 11.vii.71 (6); 18.x.73 (23) (in all 26 species).

ANTRIM : 12 species (AN)

(23) Glenariff (GA): mixed woodland, conifers dominant in upper parts, sweeping overhanging banks above stream. 7.v.70 (12).

TYRONE : 3 species (TY)

(24) Gortin Glen Forest Park (GFP): open coniferous forest, mixed vegetation beside Pollan Brook. 8.v.70 (2).

(25) Baronscourt (BC): wooded estate with variety of habitats, rides in plantations and amongst *Rhododendron*, etc. 9.v.70 (only *Boletina trispinosa*).

LEITRIM : 8 species (LE)

(26) Lough Rinn Estate (LR): hedged bridle-path above east side of lake. 10.v.70 (1 species, Mycomya winnertzi).

(27) Dromahaire (DH): conifer plantations between village of Dromahaire and Lough Gill. 13.v.70 (2).

(28) Glencar Waterfall (gw): mixed deciduous woodland of an open nature on slopes leading up to the waterfall. 15.v.70 (6).

SLIGO: 14 species (SL)

(29) Glen of Knocknarea (GK): a steep-sided limestone gorge without a stream, only muddy track along floor. Rich in insects. 13.v.70 (12).

(30) Tobernalt Holy Well (TH): formalised waterfall with planted trees and flower-beds just outside Sligo town. Sweeping garlic abundant by stream flowing from well. 13.v.70 (1 species, *Phronia humeralis*).

(31) Lissadell Demesne (LD): planted mixed woodland near house, with a rich ground flora containing exotics but insects very sparse, 15.v.70 (2).

ROSCOMMON: 2 species (RO)

(32) Lough Key National Forest Park (formerly Rockingham Estate) $(L\kappa)$: wooded shores of Lough Key. Beechwoods being felled and replaced by conifers. Very little about but some insects swept from bamboo and snowberry by lake below burnt-out house. 11.v.70 (2).

WESTMEATH: 2 species (WM)

(33) Lough Derravaragh (LDV): birchwoods on steep slopes above lake shore. 14.v.70 (2).

CLARE: 22 species (CL)

(34) Cratloe Wood (cw): inature oakwood with uncoppied hazel shrub layer, unfortunately of not very great extent and becoming surrounded by conifer plantations. 18.v.70 (1 species, $Mycomya \ maura \ \varphi$).

(35) Lough Derg (LDG): small deciduous wood with brambles, etc., on ground on shore of lake north of Killaloe. 18.v.70 (1 species, *Boletina nitida*).

(36) Ennistymon (ET): wooded gorge above Falls Hotel, access from bridge over stream just outside town, way eventually barred by fallen trees and disintegration of track into river below steep slopes. Brief evening visit but very productive of small Diptera. 19.v.70 (10).

(37) Lough Inchiquin (LI): wooded hillside overlooking the Lough, track between mossy hedge banks with some shaded overhanging spots, ascending through young mixed woodland to conifer plantations at top of hill. 20.v.70 (9).

(38) Lisdoonvarna (LV): dense alderwood by the river. Insects very numerous and various. 22.v.70 (5).

GALWAY: 9 species (GY)

(39) Coole Park (GP): mixed woods around the remains of Coole House, evening visit. 21.v.70 (1 species, Allodia ornaticollis).

(40) Clarinbridge (CB): varied woods including conifer plantations but plenty of beech, oak, etc. Rich dipterous fauna. 21.v.70 (9).

LEIX: 1 species (LX)

(41) Emo Park (EP): mixed woods and open ground but only fungus-gnat obtained in conifer plantation. 11.vii.71 (1 species. *Boletina dubia*).

ARMAGH: 4 species (AR)

(42) Newry Forest (NF): mainly conifer plantations but some admixture of other trees. 15.vii.71 (4).

MONAGHAN: 1 species (MO)

(43) Lough Muckno (LM): marsh vegetation and coarse herbage on shore of a backwater of lough. 15.vii.71 (1 species, *Boletina dubia*).

DUBLIN: 3 species (DU)

(44) Howth woods (Hw): mixed woods, mainly deciduous, on slopes of Ben Howth, summit of Howth Peninsula. 17.vii.71 (3).

WEXFORD: 1 species (**WX**)

(45) Tagoat (TA): hedges surrounding small overgrown fields. 20.x.73 (1 species, Brevicornu griseicolle).

Species List

Abbreviated locality references for which no collector's name is cited refer to specimens collected by the author.

DITOMYIINAE

The two British species of this sub-family have not been found in Ireland.

BOLITOPHILINAE

The records of Bolitophila cinerea Hoffmansegg and fusca Meigen given by Haliday (1833) could refer to any species of the genus. Walker (1856) gave only cinerea from Ireland and Haliday in his MS list says fusca was recorded in error for cinerea; B. fusca is a synonym of B. hybrida. Bolitophila cinerea Meigen WI/GL (GR & PE); GD; PD. CO/DF. KE/KI (LL). CL (ET). LX/Slieve Bloom, 6.vi.70 (R.I. Vane-Wright, B.M.). Common. Unlocalised Irish specimens in Haliday collection. B. saundersi Curtis WI/GL (GR & PE); GM. KE/KI (DC); DF. Probably common. Males difficult to separate from those of B. spinigera. One unlocalised Irish female in Haliday collection. B. spinigera Edwards CO/DF, 15.x.73 ♀. Few British records although widespread. B. hybrida Meigen WI/GL (GR), 20.ix.68 9. Common in Britain and should be so in Ireland.

DIADOCIDIINAE

Diadocidia ferruginosa Meigen co/TG, 28.vi.69 \mathcal{Z} . Should be common. Females collected at WI/GL and PD but these cannot be separated easily from *D. spinosula* Tollet. Recorded from KE/KI by Walker (1856) and Hogan and Haliday (1855).

KEROPLATINAE

Asindulum flavum Winnertz

DOWN/Tullymore Park, vi.1846 (Haliday; Walker 1856; one & in Dublin Mus.).

KE/Parknasilla, 17.vii.1901 (J. W. Yerbury; Yerbury 1902; in B.M.). Killarney, Cromaglan, Gortroc, 5.viii.1940 (B. P. Beirne, B.M.). Common in Britain on hogweed flowers in diffuse sunlight at wood edges.

Antlemon servulum Walker

кд/ам, 10. vii. 69, 3 & 1 \$\vee\$; 11. vii. 71, 4 \$.

One female labelled "Killina" in Haliday collection.

Another umbel visitor but usually less frequent than A. flavum.

Cerotelion lineatus Fabricius

KE/KI (RI), 30.vi.69, 1 & on fungus covered log.

Rather local in Britain, usually found in the situation described.

Orfelia (Isoneuromyia) semirufa Meigen

wi/ Clara (Haliday) and two unlocalised specimens in Haliday collection (labelled respectively *adusta*, *vitripennis* and *brunnipennis*). Recorded by Walker (1856) from Ireland under name *Platyura vitripennis* Stephens MS.

O. (Pyratula) zonata Zetterstedt

One unlocalised Irish specimen in Haliday collection (labelled *flavipes?*), which was recorded from Ireland by Walker (1856) as *Platyura flavipes* Mg.; the latter name is a synonym of *O. nemoralis* below.

O. (Urytalpa) ochracea Meigen

DOWN/ Bangor, 3.iii.73 9 on garage window (C. Reid).

Not common but found throughout Britain.

O. (Neoplatyura) flava Macquart

DOWN/ Newcastle, 4.vii.1912 (J. J. F. X. King, B.M.).

O. (Orfelia) nemoralis Meigen

KD/AM, 11.vii.71 &; wt/gl (gr), 8.vii.69 &; Ke/ki (dr), 2.vii.69 &.

AR/ Lough Neagh, Oxford Island, 6.vi.73 & (A. Irwin).

Probably quite frequent. Five of the seven specimens in Haliday's collection are labelled "Ireland". Walker's *flavipes* Mg. may have included both this and O. zonata above.

O. (O.) unicolor Staeger

ar/nf, 16.vii.71 8; kd/am, 11.vii.71 9.

One male labelled "Ireland" in Haliday's collection.

O. (O.) discoloria Meigen

wx/ Wexford, 8.vii.1902 & (J. J. F. X. King, B.M.).

Walker (1856) recorded this from Ireland but the single female labelled *discoloria* in Haliday's collection is a *Neoplatyura* species.

O. (O.) fasciata Meigen

WI/ GL (PE), 10.vii.71 8.

O. (O.) pallida Staeger

wa/ Cappoquin, 25.vii.1902 ♀ (J. J. F. X. King).

Macrocera aterrima Stackelberg

ке/кі (тс), 16.х.73 ♀.

Otherwise known only from Scottish Highlands (see Hutson and Kidd 1974; Chandler, in press).

M. parva Lundström

LX/ Slieve Bloom mountains, 6.vi.1970 & (R. I. Vane-Wright, B.M.).

M. fasciata Meigen

wi/ gl, 16.ix.68 9; 8.vii.69 9; 24.v.70 8.

KE/ KI, vi.1913 & Q (Morley 1920); 25-27.v.1929 & (F. W. Edwards, B.M.).

pown/ Holywood (Haliday 1833) (Walker 1856 gives Ireland). It is probably fairly frequent. *M. vittata* Meigen

WI/ GL (PE); GC.

Two males labelled "Ireland" in Haliday's collection; this species was recorded by Haliday (1833) and Walker (1856) under the name *lutea* Meigen. It is usually one of the commonest *Macrocera* in marshy woods.

M. centralis Meigen

One female in Haliday's collection, labelled "Ireland". This species is more characteristic of drier woods, where it is often common in Britain.

M. stigma Curtis

DU/ HW, 16.vi.1910 & (Dr. Hungerford, Dublin Mus.). CO/ GG; LX/ Slieve Bloom; WI/ Kippure Bog (several specimens, vi.1970) (R. I. Vane-Wright, B.M.). TIPPERARY/ Killaloe, 16.vi.1913 Q (Morley 1920).

Generally common.

M. stigmoides Edwards

W1/ GL; AU. DU/ HW. CL/ ET. KE/ KI (DC).

Lx/ Slieve Bloom, 6.vi.70; Atorick, 7.vi.70 (R. I. Vane-Wright, B.M.).

Some Irish males differ in some respects from British males but no characters of specific importance have been discovered.

M. phalerata Meigen

Two Irish specimens in Haliday's collection (it was recorded from DOWN/ Holywood by Haliday (1833) and by Walker (1856) from Ireland). It is quite common in Britain and may be so in Ireland.

SCIOPHILINAE

MYCOMYINI

Mycomya marginata Meigen

The author has only seen females which probably represent this species from Ireland. It was recorded by Haliday (1833) and Walker (1856) (in the genus *Sciophila*) and there are two Irish females in Haliday's collection. The author has females from wi/GD; KE/KI and LE/GW. *M. hyalinata* Meigen

AR/ NF, 15.vii.71 8.

M. wankowiczi Dziedzicki

WI/ GD (PE), 10.vii.71 8.

This and the previous species are probably frequent.

M. winnertzi Dziedzicki

an/ ga. wi/ gl (pe & gr). Le/ dh; lr. wm/ ldv. ro/ lk. ke/ dh. cl/ et.

ке/кт (Cromaglan) (В. Р. Beirne, В.М.).

Common generally in woods. Above records refer to males only; females from several localities could be this or M. wankowiczi. One male labelled "Ireland" in Haliday's collection.

M. cinerascens Macquart

KE/KI (TC). WI/GD.

wt/ Lough Dan, ix.1909 & (J. N. Halbert, Dublin Mus.).

A very common species everywhere in Britain.

M. incisurata Zetterstedt

Le/ dh. cl/ li. gw/ cb. ke/ ki (dc). kd/ am. wi/ gsf; au; gd.

KE/ KI (TC) (R. I. Vane-Wright, B.M.), (Cromaglan) (B. P. Beirne, B.M.). WI/ Lough Dan, 30.ix.1909 (J. N. Halbert, Dublin Mus.); Enniskerry (B. P. Beirne, B.M.).

Very common everywhere in the British Isles.

M. flavicollis Zetterstedt

KD/ AM, 11.vii.71, 3 &; 18.x.73, 3 & on ivy flowers.

An uncommon species restricted to a few localities in southern England on present information, all dry woods.

M. circumdata Staeger

кd/ ам. 18.х.73 б.

Another very local species with a scattered distribution in Britain.

M. tenuis Walker

Two females collected in Ireland may be this species but males are required for certain distinction from M. duplicata Edwards. These specimens are from wi/ GD and KE/ DH.

M. prominens Winnertz

AN/ GA, 7.v.70 8.

Females collected at several localities in Ireland could belong to this or to one of the other species of the ornata group (five species of which M. prominens is the commonest in Britain). M. parva Dziedzicki

кd/ ам, 18.х.73 б.

Very local in Britain, this is another of the interesting group of dry woodland species found as yet only at Ardscull Mote in Ireland.

M. fimbriata Meigen

WI/ GL (GR), 24.v.70 &.

Rather infrequent in Britain.

M. trilineata Zetterstedt

MAYO/ Achill Island, vi.1909 & (J. N. Halbert, Dublin Mus.) (recorded by Grimshaw, 1912). There are also four specimens labelled "Ireland" in Haliday's collection, two of them also labelled *cingulata* (recorded from Ireland under the latter name by Walker 1856).

This gnat is particularly characteristic of dry woodlands.

M. maura Walker

GW/ CB. CL/ CW.

Only females obtained at these localities, considered to be *maura* rather than *trilineata* on the basis of colour only and males required for confirmation.

M. exigua Winnertz

ке/ кі (тс), 16.vi.70 8 (R. I. Vane-Wright, В.М.).

Not very common but very similar to M. incisurata and so can easily be overlooked.

Sciophilini

Allocotocera pulchella Curtis

KE/KI (TC), taken first by J. Curtis who described it from this Irish capture (Curtis 1837), then during viii.1854 by Haliday ("on Umbelliferous flowers by the road below Torc Mountain"; Hogan and Haliday 1855) (Walker 1856).

There are no more recent Irish captures but it is frequent in well-wooded areas in southern England.

Sciophila lutea Macquart

AN/ Belfast, 9.viii.74 9 (A. Irwin).

An unlocalised male in Haliday's collection labelled rufa belongs to this species so Haliday's (1833) record of S. rufa from pown/ Holywood probably refers to S. lutea. S. rufa is omitted by Walker (1856) who recorded *lutea* only from England but rufa is retained in Haliday's MS list.

A common species in Britain, developing in a wide variety of fungi.

S. hirta Meigen

DU/ Seapoint, 14.viii.1937 & (B. P. Beirne, Dublin Mus.).

One male in Haliday's collection labelled "Ireland" (listed in his MS list).

S. nigronitida Landrock

One male labelled "Ireland" and "*hirta*" in Haliday's collection belongs to *nigronitida*, a rather uncommon species in Britain.

Megalopelma nigroclavatum Strobl

DU/ нw, 17.vii.71 ♀.

 $\kappa E/\kappa I$, 25–27.v.1929 \mathcal{E} (F. W. Edwards, B.M.). In Haliday's collection there is an Irish male, labelled *vitripennis*, probably the species recorded from Ireland by Walker (1856) as *Sciophila vitripennis* Meigen (the true *vitripennis* being a *Synapha*, see below).

Monoclona rufilatera Walker

DOWN/ Stormont, 18.v.74 & (A. Irwin).

The single female recorded from DOWN/ Tullymore Park (Walker 1856) under the name *Sciophila halterata* Staeger (a synonym of M. *rufilatera*) is in Haliday's collection and belongs to M. *rufilatera*.

Acnemia longipes Winnertz

W1/ GL (GR &, PE ♀), 11.x.1970.

The only published record of this species from the British Isles is from Crowborough, Sussex (Jenkinson 1908, Edwards 1925), but there is at least one recent record from southern England. *A. nitidicollis* Meigen

WI/ GL (PE). KE/ RL. AR/ NF.

Common generally in woodlands.

Neuratelia nemoralis Meigen

WI/ GL (GR). CL/ ET; LI. LE/ GW.

ке/ кі, 25–27.v.1929 (F. W. Edwards, B.M.).

Probably quite common in woods as it is in Britain.

N. nigricornis Edwards

WI/ GL (PE), 10.vii.71 8.

When described by Edwards (1941) this was recorded only from sussex/ Crowborough and DOWN/ Newcastle, 17.vii.1912 & (J. J. F. X. King, B.M.). Few additional captures have been made in Britain but it has been recorded in recent years from Belgium and France. *Anaclileia dispar* Winnertz

 w_1 / near Kippure Bog, at 1750 ft, 3.vi.1970 & (R. I. Vane-Wright, B.M.). Uncommon in Britain with records from Inverness-shire, Arran and Staffs.

Phthinia winnertzi Mik

co/ gg, 20.vi.70 & (R. I. Vane-Wright, B.M.).

P. humilis Winnertz

W1/ GL (PE), 8.vii.69 ♀.

Both Phthinia species are local, occurring around fallen trunks and stumps in shady situations.

GNORISTINI

Speolepta leptogaster Winnertz

This species is essentially a cave dweller and is rarely found above ground. Edwards (1925) only mentioned an unlocalised female in Haliday's collection, which he thought might be Irish but records (both of adults and larvae) from ten cave systems in Counties Tipperary, Clare, Sligo and Fermanagh were detailed by Hazelton (1974), who also provided a map showing the known distribution of the species in the British Isles. S. leptogaster, a slender bodied grey gnat, is the only British mycetophilid to be an obligatory troglophile, although species of *Bolitophila* and several Exechiine genera may be found in this situation also. Speciepta is probably ubiquitous in caves throughout the British Isles; the larvae are thought to subsist on micro-organisms, algae, etc.

Coelosia tenella Zetterstedt

WI/ GSF, 17.ix.68 8. SL/ GK, 13.v.70 8.

wi/ Roundwood, 1.x.1909 (Dublin Mus.).

Infrequent but widely distributed in Britain.

C. flava Staeger

AN/ Belfast, Dixon Park, 28.v.73, 2 9 (A. Irwin).

This is an interesting addition to the Irish list as it has been thought to be a southern species in Britain, the most northerly record being from Yorks. It is, however, certainly more widespread in southern England than appears from the few published records.

Palaeodocosia janickii Dziedzicki

KE/ KI, 25-27.v.1929, $3 \Leftrightarrow$ (F. W. Edwards, B. M.) (Edwards, 1929, recorded these as *P. alpicola* Strobl but transferred them to *janickii* in 1941; in the latter paper *P. janickii* appears the more widely distributed species but all members of the genus are rare in the British Isles).

Synapha vitripennis Meigen

WI/ GL (PE); GSF. KE/ KI (LL); DF.

Generally common in woodland; Walker's (1856) record of vitripennis, however, as mentioned above, referred to Megalopelma nigroclavatum.

Apolephthisa subincana Curtis

WI/ GL (PE). KE/ KI (TC; DC).

The type of *Tetragoneura melanoceras* Haliday MS. (Walker, 1856) from DOWN/ Holywood was this species (one female labelled "Ireland" in Haliday's collection). *T. melanoceras* is omitted from Haliday's MS list.

Boletina trivittata Meigen

wi/ gl (pe). Le/ gw. sl/ ld; gk. cl/ li. kd/ am. ke/ ki (dc); dh.

wi/ Glencree, v.1908 (J. N. Halbert, N.M.). AN/ Belfast, 29.v.1972 (R. Nash).

DOWN/ Ballysallagh, 4.v.74 (A. Irwin); Mournes, Spelga Dam, 10.vi.73 (A. Irwin). ct/ Corofin. 25.iv.74 (A. Irwin).

Usually very common in marshy woods.

B. flaviventris Strobl

WI/ GL (PE), 8.vii.69 8.

Local, around rotten logs and stumps.

B. dubia Meigen

WM/ LDV. LX/ EP. MO/ LM. AN/ GA.

MAYO/ Clare Island; Louisburgh (Grimshaw 1912 as B. analis; the male from Clare Island is in the Dublin Museum and is B. dubia).

Common in damp woodland; the larva has been recorded as feeding on liver-worts.

B. plana Walker

WI/ GL (GR), 20.ix.68 9.

Probably frequent in similar situations to B. dubia.

B. nitida Grzegorzek

WI/ GD, 11.x.70 &. CL/ LDG, 18.v.70 &; ET, 19.v.70 &.

The only published record for this species (Edwards 1941) is from Leigh Woods, Somerset, but it has recently been collected in a few additional English localities.

B. rejecta Edwards

ке/ кг, 25-27.v.1929 & Paratype (F. W. Edwards, B.M.; Edwards 1941).

This was the only recorded specimen apart from the holotype from the New Forest but like *nitida* it has been collected in other English localities recently.

B. nasuta Haliday comb. nov. (lundbecki Lundström of Edwards 1913 and 1925, not of Lundström).

an/ ga, 7.v.70 8.

Although little known in Britain this species was said to be "not uncommon about rivulets at Holywood" by Haliday (1839) who described it as *Leia nasuta*. Walker (1856) synonymised *nasuta* incorrectly with *analis* Meigen, the latter being a synonym of *B. dubia* above. There is no doubt that *nasuta* was the species called *lundbecki* by Edwards as this is the only known species with the curious horn-like structure present on the frons of the male, which Haliday described for *nasuta* and which is also suggested by the specific name. It would appear that *nasuta* is an earlier name for *lundbecki* of Edwards. This has not been previously realised as far as I am aware and Landrock (1927) listed *nasuta* as an unsatisfactorily described species of *Leia* which he could not recognise. There are a pair of the species in Haliday's collection labelled "Ireland", together with a second unlocalised female, and these may have been types of *nasuta*.

B. trispinosa Edwards

KD/ AM, 18.X.73, 2 3. WI/ PD, 10.VII.71 3. TY/ BC, 9.V.70 3.

There are few British records of this species, chiefly southern England but also North Wales. A female from wi/ Roundwood, 1.x.09 (Dublin Mus.) is probably of this species.

B. lundstroemi Landrock

Gw/св. 21.v.70 8.

KE/ KI, 25-27.V.1929 & (F. W. Edwards, B.M.).

Uncommon but widespread in Britain.

B. griphoides Edwards

ке/ кі (мw), 16.х.73 8.

With the last, a member of the *sciarina* group which includes several small species only separable on the structure of the male genitalia. Again few British records of this species. *B. gripha* Dziedzicki

кd/ ам, 18.х.73 8. Gw/ св.

wi/ Prince Wil's Seat, 16.i.1927, 1,600 ft, & (A. W. Stelfox, Dublin Mus.).

DOWN/ Stormont, 2.iv.1974 9; Tollymore, 14.iv.74, 2 9 (A. Irwin).

One of the commonest species in Britain and probably in Ireland also.

Leiini

Leia winthemi Lehmann

DOWN/ Holywood (Haliday 1833; one in poor condition labelled "Ireland" in his collection and listed in his MS list; Walker, 1856, recorded it only from England).

A species very widely distributed abroad but of quite sporadic occurrence in this country. Like other species of *Leia* it is most often obtained by beating tree foliage.

L. fascipennis Meigen

wa/ dg, 27.vi.69 9.

DU/ Dublin, 1.ix.1895; Malahide, 1.viii.1915, 2 3; Rathmines, 19.x.1907; Bog o' the Ring, ix.1902 (all Dublin Mus.). Mayfield, Rathgar, 20.ix.1923 (A. W. Stelfox, Dublin Mus.). I.E/ Tullaghan, 8.x.1937 (A. W. Stelfox, Dublin Mus.). Gw/ Belclare, vii.1910 (J. N. Halbert; Grimshaw, 1912). DOWN/ Holywood (Haliday, 1833; four specimens labelled "Ireland" in his collection).

Generally common. Walker (1856), who recorded it from Ireland, said especially on oak and lime foliage; it also visits umbels and thistle flowers.

L. bimaculata Meigen

Recorded from DOWN/ Holywood by Haliday (1833) and from Ireland by Walker (1856) but there is only one English specimen in Haliday's collection. It is rather local in Britain. The *Leia bifasciata* Gimm. (= *trimaculata* Mcq.) of Walker (*op. cit.*) and of Haliday's MS list, recorded as found at DOWN/ Holywood and at co/ Blarney by Haliday, may be the pale variety *fasciola* Meigen of *L. bimaculata* but again no specimens survive.

Megophthalmidia crassicornis Curtis

No Irish specimens available but it was described as new under name Leia helvola Haliday MS by Walker (1856) on a specimen from DOWN/ Holywood. In his errata, Walker synonynised helvola with brevicornis Zettehstedt, itself a synonym of crassicornis Curtis. Jenkinson (1908) commented that it was too much to hope that Haliday's specimens are still in existence but there is a British male in his collection. It is a very scarce species in Britain.

Tetragoneura sylvatica Curtis

Gw/ св, 21.v.70 ♀.

 $\kappa E/\kappa I$, 25-27.v.1929 & (F. W. Edwards, B.M.). An Irish pair in Haliday's collection (from DOWN/ Clifden); it was recorded from Ireland by Walker (1856). In Britain extremely common in woods and is probably so in Ireland also.

Meunieria hirta Winnertz

DOWN/ Tullymore Park. & (Haliday collection); Walker (1856) recorded it as taken in County Down by Haliday.

Docosia gilvipes Walker

DOWN/ Bangor, 28.iii.73 9 (C. Reid); Stormont, 2.iv.74 9, 2.v.74, 2 3 (A. Irwin).

Fairly common in Britain, developing in a wide range of fungi. It was described by Walker (1856) as *Leia gilvipes* Haliday MS from an unlocalised Irish type; there are no specimens in Haliday's collection.

D. sciarina Meigen

A pair in Haliday's collection are labelled "Ireland". It is fairly common in Britain.

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MYCETOPHILINAE

Exechini

Anatella setigera Edwards

sl/ gk, 13.v.70 б.

The species of Anatella are small black gnats of unknown habits and there are few British records of most of the eight species.

A. ciliata Winnertz

w1/ GL (GR), 11.x.70 ♂.

KE/ KI, 25-27.v.29 & (F. W. Edwards, B.M.). This is the most frequent Anatella, widely distributed in Britain. Females cannot be determined but one collected at WI/ GL (GR), 20.ix.68 may be *ciliata*.

Exechia pallida Stannius

W1/ GL (GR), 20.ix.68 ♀; (PE), 20.x.73 ♂.

Widespread but not too frequent in Britain.

E. spinuligera Lundström

wi/ gn, 17.ix.68 8.

DOWN/ Stormont, 29.xii.73 \mathfrak{P} ; Copeland Island, 24.viii.74 \mathfrak{F} (A. Irwin). Frequent in Britain although much less so than the closely allied *E. fusca*.

E. fusca Meigen

WI/ GL. KD/ AM. CO/ GG. KE/ KI (MW, TC); DH; KM. SL/ GK.

MAYO/ Hollymount, 6.iv.23 (W. Ruttledge, Dublin Mus.). DU/ Dublin, 28.vii.1895 (Dublin Mus.) AN/ Belfast, 25.iv.71 (R. Nash). DOWN/ Stormont, 23/29.xii.73, 6.i.74; Tollymore Forest, 14.iv.74; Rostrevor, 15.iv.74 (A. Irwin). Generally very common. The *Mycetophila* fungorum Degeer of Walker (1856) was this species.

E. dorsalis Staeger

WI/ GL (PE). KE/ RL. AR/ NF.

MAYO/ Hollymount, 26.ix.22 (W. Ruttledge, Dublin Mus.). Fairly common, like the last developing in a variety of fleshy fungi.

E. nigra Edwards

KE/ KI (MW), 16.x.73 ♂. SL/ GK, 13.v.70 ♀.

Uncommon but widespread in Britain.

E. parva Lundström

ке/ км, 15.х.73 8.

Probably common in Ireland. This and several related species commonly hibernate in numbers within hollow plant stems. Females from Irish localities may be this or belong to other species of the group, e.g. *nana* Staeger, *repanda* Johannsen or *separata* Lundström. The three latter are frequent in Britain and will no doubt occur in Ireland.

E. pseudofestiva Lackschewitz

CL/ Poulsallagh, 23.vii.71 3 in limestone grassland (M. G. Morris, in the author's collection). This is a very interesting record as only one pair has previously been recorded from the British Isles, collected at Madeley, Staffs., by H. Britten 21.ix.1936 (Edwards 1941) although a male collected at a high altitude in Scotland has recently been seen. It is a small dark gnat resembling the *parva* group, but with large genitalia approaching the structure of *E. festiva*. *E. festiva* Winnertz

ке/ кі (тс), 16.х.73 & ♀; (дс), 16.х.73 &.

Widely distributed in Britain.

E. contaminata Winnertz

w1/ GL (GR), 24.v.70 ♀, 11.x.70 ♀.

KE/ KI, 25-27.v.1929 & (F. W. Edwards, B.M.). Generally common in Britain.

Pseudexechia trisignata Edwards

AN/ GA, 7.v.70 8.

DOWN/ Tollymore Forest, 14.iv.74 & (A. Irwin).

Widespread in Britain, said to be more common in the north by Edwards (1925) perhaps because it has been collected in several Scottish localities while *P. trivittata* Staeger, commoner in southern England, has not yet been found in Scotland or Ireland.

Exechiopsis (Xenexechia) leptura Meigen DU/ HW, 17.vii.71 9. DOWN/ Stormont, 23.xii.73 & (A. Irwin). Widespread but not very common in Britain. Exechiopsis (Exechiopsis) unguiculata Lundström **KE** / **KI** (DC), 16.x.73 ♀. Widespread but not common in Britain. E. (E.) subulata Winnertz WI/ GL (PE), 16.ix.68 \$; (GR), 20.ix.68, 2 \$\varphi\$, 11.x.70 \$\varphi\$. KE/ DF, 15.x.73 \$\varphi\$; KI (TC), 16.x.73 \$\varphi\$. ке/ кг, 25-27.v.1929, 2 8 (F. W. Edwards, B.M.). Frequent and generally distributed in Britain. E. (E.) clypeata Lundström ке/ кi, 25–27.v.1929, 2 8 (F. W. Edwards, B.M.). British records are from Scotland, Wales and Lancs. It has not been possible yet to determine some of the *Exechiopsis* females collected in Ireland. Allodiopsis (A.) rustica Edwards ке/ кі (мw), 2.vii.69 8. со/ df, 14.x.73 8. ке/ кг, 25–27.v.1929 8 (F. W. Edwards, B.M.). This is undoubtedly the most common Allodiopsis in most parts of the British Isles, developing in various gill fungi. Tarnania fenestralis Meigen DOWN/ Stormont, 6.i.1974 \Q (A. Irwin). Quite common generally in Britain, developing in a range of larger gill fungi. Walker (1856) recorded it from Ireland but it is not represented in Haliday's collection and as he quoted domestica Meigen as a synonym of fenestralis his record probably referred to an Allodiopsis. Haliday, in his MS list simply gives *domestica* Mg, citing Walker as an authority for the record. Rymosia placida Winnertz WI/ GL (GR), 20.ix.68 8. Known from very few localities in Devon, Yorks. and Cheshire. R. virens Dziedzicki WI/ GL (PE), 10.vii.71 ♂; 20.x.73 ♀. Uncommon but generally distributed in Britain. R. fasciata Meigen WI/ GL (PE), 16.ix.68, 11.x.70, 20.x.73; RC. KE/ KI (LL); KM. CL/ LI. SL/ GK. KD/ AM, 18.x.73. MAYO/ Hollymount, 26.iii.23 (W. Ruttledge, Dublin Mus.). Generally common, the only Rymosia to be collected at all frequently. Walker (1856) recorded it from Ireland. Allodia (A.) lugens Wiedemann AN/ GA. SL/ GK, TY/ GFP. KE/ KI (DC); DF; DH. DOWN/ Bangor, 28.ii.73 & (C. Reid). Generally common, feeding in various Agarics. A. (A.) ornaticollis Meigen AN/ GA. KE/ DF; DH. GY/ CB; GP. KD/ AM, 18.N.73 & on ivy flowers. DOWN/ Stormont, 23.xii.73 & (A. Irwin). Abundant everywhere, feeding in various Agarics. All records of Allodia quoted refer to males only as the females cannot be separated. Walker (1856) recorded ornaticollis from Ireland but at that time the specific characters within Allodia (sensu stricto) had not been appreciated. A. (A.) lundstroemi Edwards WI/ GL (GR), 20.ix.68 &. SL/ GK, 13.v.70 &. Widespread in Britain but much less frequent than the two preceding species. A. (Brachycampta) grata Meigen WI/ AU; PD. CO/ DF. Probably frequent in Ireland, it is the only one of the eight Brachycampta species to be collected at all commonly in Britain. Pseudobrachypeza helvetica Walker ке/ кі (DC), 16.х.73 б. Quite frequent and generally distributed in Britain,

Brevicornu (Stigmatomeria) crassicorne Stannius

WI/ RC. CO/ DF. CL/ ET; LL

DOWN/ Stormont, 23.xii.73 \Im ; Tollymore, 14.iv.74 \Im (A. Irwin). MAYO/ Hollymount, 11.iv.23 (W. Ruttledge, Dublin Mus.). Walker (1856) recorded it from Ireland and it is included in Haliday's MS list. It is probably generally common in Ireland as it is in Britain.

B. (Brevicornu) fuscipenne Staeger

ке/ кі (DC), 16.х.73 8.

Uncommon but widespread in Britain.

B. (B.) boreale Lundström

WI/ GL (PE), 10.vii.71 8.

A few scattered British records from Yorks, Staffs., Cheshire and Inverness-shire.

B. (B.) ruficorne Meigen

KE/ KI (DC), 16.x.73 9. CL/ LV, 22.V.70 8.

Few British records but widely distributed (from Sussex to Elgin).

B. (B.) foliatum Edwards

CL/ LV, 22.V.70 8.

Few British records but including both the New Forest and the north of Scotland.

B. (B.) fissicaudum Lundström

ко/ ам, 18.х.73 8.

Widespread in southern England and Wales but no records further north than Lancashire.

B. (B.) griseicolle Staeger

WI/ BLR. WX/ TA. KE/ KI (MW). KD/ AM, 11.vii.71, 18.x.73 (on latter occasion at ivy flowers). Generally quite common throughout Britain.

B. (B.) sericoma Meigen

WI/ GL (PE); GSF. KE/ KI (TC, MW, DC); DH; KM. KD/ AM, 18.x.73 at ivy flowers. CL/ LV.

Abundant in most areas. Walker (1856) recorded it from Ireland but at that time the species of this genus had not been well distinguished. While *sericoma* and *griseicolle* are evidently the commonest *Brevicornu* (sensu stricto) species in Ireland as in Britain, it appears easier to find some of the rarer species of the genus there, albeit as single specimens. All records quoted for both this and the preceding species are of males only as the females cannot be readily separated.

B. (B.) species

WI/ PDP, 10.vii.71 8.

A single male which has genitalia apparently differing structurally from any of the species presently on the British list, but it has not yet been possible to find the correct name for it. *Cordyla crassicornis* Meigen

KE/ DF, 15.x.73 8.

pown/Stormont, 23.xii.73 &; 18.v.74 & (A. Irwin). Haliday (1833) recorded it from Holywood and there are several specimens labelled "Ireland" in his collection but the species was not mentioned by Walker. It is one of the commonest species of the genus, like some others feeding in fungi of the genus *Russula*.

C. semiflava Staeger

w1/ gd, 11.vü.69 8. Ar/ NF, 15.vii.71 8.

Uncommon but generally distributed in Britain.

C. murina Winnertz

WI/ GL (PE), 16.ix.68 3. KD/ AM, 11.vii.71 3.

Frequent and widely distributed in Britain.

C. brevicornis Staeger

WI/ GL (GR), 11.x.70, 2 8. KE/ DH, 15.x.73 8.

Generally common, developing in a variety of gill fungi.

C. fissa Edwards

кD/ AM, 18.х.73, 2 3 at ivy flowers. CL/ ET, 19.v.70 3.

MAYO/ Hollymount, 1.iv.1923 & (W. Ruttledge, Dublin Mus.). Haliday (1833) recorded C. fusca Meigen but there are no specimens in his collection and the name is deleted in his MS. list. C. fissa is common and widespread in Britain.

C. fasciata Meigen w1/ GL (GR), 20.ix.68 &; 11.x.70 & on oak trunk. Haliday (1833) recorded this species from DOWN/ Holywood and there are two females labelled "Ireland" in his collection. Infrequent but widespread in England. C. flaviceps Staeger WI/ GL (PE), 16.ix.68, 2 9; AU, 16.ix.68 8. MAYO/ Hollymount, 27.ix.22 9 (W. Ruttledge, Dublin Mus.). Scattered records in southern England; both this and C. fasciata develop in Russula species. Walker (1856) recorded C. flaviceps from Ireland but no old specimens survive. MYCETOPHILINI Trichonta stereana Edwards ке/ кі (dc), 16.х.73 б. Uncommon but generally distributed in Britain. The larvae develop in Stereum encrusting rotten logs. T. melanura Staeger DOWN/ Stormont, 13.v.1969 & (A. Irwin). Uncommon but widespread in Britain. T. vitta Meigen ₩1/ GM, 16.ix.68 8. The commonest British Trichonta, its larvae feeding in Poria encrusting damp bark. Several other Trichonta species should occur in Ireland but they are an elusive group. Phronia exigua Zetterstedt ке/ кі (мw), 16.х.73 8. Widespread in Britain although it is not as common as some other Phronia species. P. humeralis Winnertz (= forcipula Winnertz of Edwards) W1/ GL (PE, GR); GSF. AN/ GA. GY/ CB. CL/ LI. SL/ TH. CO/ TG. DOWN/ Bangor, 3.iii.73 Q (C. Reid); Tollymore, 14.iv.74 Q (A. Irwin). Generally abundant in damp woodlands throughout the British Isles. Larvae feed on wood encrusting fungi, which is the habit of all *Phronia* whose development is known. P. braueri Dziedzicki (= annulata Winnertz of Edwards) GY/ св, 21.v.70 ₿. Common in damp woods in Britain, probably so in Ireland also. Several females collected in Ireland are probably this species but they cannot be adequately separated from other related species. P. forcipata Winnertz ке/ кі (DC), 16.х.73 8. wi/ Lough Dan, 30.ix.1904 & (Dublin Mus.). Frequent and generally distributed in Britain. P. cinerascens Winnertz WI/ GSF. KE/ KI (RI). LE/ GW. CL/ ET. Generally common in damp woods. P. tenuis Winnertz кd/ ам, 18.х.73 *д*. Frequent and generally distributed in Britain. P. conformis Walker ке/ DF. 15.х.73 8. Quite common in southern England. P. nigricornis Zetterstedt (= dubia Dziedzicki of Edwards) WI/ GL (GR), 24.v.70 8. KE/ DH, 15.x.73 9. Fairly common throughout Britain. P. triangularis Winnertz ке/ кі (DC), 16.х.73 8. Not common but widespread in Britain.

Dynatosoma reciprocum Walker

WI/ GL (PE), 16.ix.68 9; 10.vii.71 8. co/ gg, 4.vii.69 8.

Frequent in Britain but much less so than *fuscicorne* Meigen, which has surprisingly not yet been found in Ireland.

Mycetophila fungorum Degeer

WI/ GL (PE); GSF; RC; AU; GD. KE/ DH; DF. KD/ AM.

WI/ Lough Dan, 30.ix.1909 (Dublin Mus.). DOWN/ Stormont, 20.i.69; Clandeboye, 28.vii.68 (A. Irwin); Portavo, 3.v.69, \mathfrak{P} at M. V. Light (A. Irwin).

Generally common, developing in many Agarics and Boleti. Walker (1856) recorded it from Ireland under the names *striata* Fabricius and *unicolor* Meigen and there are two specimens labelled Ireland in Haliday's collection (the name *unicolor* is used in Haliday's MS list).

M. ruficollis Meigen complex (= lineola Meigen of Edwards)

WI/ GL (PE, GR); PDP. CO/ GG. AN/ GA. KE/ KI (DC); DF. KD/ AM.

DUBLIN/ Santry, 1895 & (Dublin Mus.). This was recorded from Holywood by Haliday (1833) and from Ireland by Walker (1856) and there are specimens labelled "Ireland" in Haliday's collection.

Frequent in Ireland as in Britain. This "species" has recently been found (Laffoon 1957, Laštovka 1972) to consist of a number of closely allied species; it has not yet been possible to assign all the Irish specimens to their correct segregate species and females cannot at present be named at all. For this reason (also because M. fungorum will probably undergo a like fate) all records are kept together in the present work.

M. ocellus Walker

SL/ LD. CL/ ET; LI. KE/ KI (RI).

MAYO/ Hollymount, 25.iii.1923 (W. Ruttledge, Dublin Mus.). DOWN/ Stormont, 23.xii.73; 6.i.74 (A. Irwin). Bangor, 3.iii.73 (C. Reid).

Generally common, feeding on a wide range of bark encrusting fungi. There is an Irish male labelled *dimidiata* in Haliday's collection.

M. formosa Lundström

KE/ KI, 25-27.v.1929 (F. W. Edwards, B.M.) WI/ Enniskerry, vii.1940 (B. P. Beirne, B.M.). Fairly common in Britain, developing in *Phlebia* encrusting bark.

M. unicolor Stannius

CL/ LV, 22.v.70 8.

Frequent in southern England. The M. unicolor recorded from Ireland by Walker (1856) was based on specimens of M. fungorum (see above).

M. stylata Dziedzicki

KE/ DF, 15.x.73 8. WI/ GL (PE), 20.x.73 9.

The only British records for this species are from Scotland (Edwards 1913, Kidd and Ackland 1970b) but it may have been overlooked elsewhere.

M. sordida van der Wulp (= czizeki Landrock of Edwards)

ке/ кг (мw), 16.х.73 Q.

ке/ кг, 25–27.v.1929 (F. W. Edwards, B.M.).

This species like M. stylata was considered to be limited to Scotland by Edwards (1925) but it has since been recorded from several localities in southern England (Laffoon 1957, Cole and Wills 1973, Chandler 1975).

M. magnicauda Strobl

ке/ кг, 25-27.v.1929, 3 8 (F. W. Edwards, B.M.) (Edwards 1929).

Edwards (1925) gave only two records from the north of Scotland but apart from his later Killarney record there is also a specimen in the B.M. collection from Salop/ Snailbeach and the author has recently collected it in Wales.

M. vittipes Zetterstedt

sl/ gk, 13.v.70 8.

ке/ кг, 25-27.v.1929 (F. W. Edwards, B.M.).

Frequent in marshy woods in Britain, the larva a Myxomycete feeder.

M. ornata Stephens

WI/ GL (GR). KE/ KI (RI). CL/ LL

ке/ кі, 25-27.v.29 (F. W. Edwards, B.M.). DOWN/ Stormont, 23.i.69, 6.iii.74, 15.iii.74 (A. Irwin). Two Irish specimens in Haliday's collection. Generally common, feeding in various of the larger lignicolous fungi. M. spectabilis Winnertz WI/ RC, 18.ix.68, 2 8. DOWN/ Newcastle, 12.vii.1912 (J. J. F. X. King, B.M.). Infrequent but widely distributed at least in southern England. A female labelled biusta in Haliday's collection is probably this species. M. curviseta Lundström WI/ PP; PDP, SL/ GK. CL/ Kilnaboy, north-west shore of Lough Inchiquin, vii.1960 (R. L. Coe, B.M.). Frequent throughout England. Females cannot be satisfactorily distinguished from the next three species and records quoted refer to males only. M. marginata Winnertz AN/ GA. W1/ GM. SL/ GK. MAYO/ Lough Conn, 30.v.71 & (M. C. D. Speight). Generally common, feeding in many bark encrusting fungi. M. fraterna Winnertz ке/ DF, 15.х.73 8. Frequent, generally distributed in Britain. M. finlandica Edwards KE/ DF. WI/ GM. Widespread in Britain; it has been reared from Tricholoma, a ground living Agaric. M. luctuosa Meigen W1/ GL (PE). AN/ GA. TY/ GFP. KD/ AM. KE/ KI (MW, DC); KM. CL/ LV. ке/кі, 25-27.v.1929 ♀ (F. W. Edwards, B.M.). Generally common, develops equally in ground living Agarics and in bark encrusting fungi. There are a pair labelled "Ireland" in Haliday's collection. M. occultans Lundström WI/ GL (PE), 20.x.73 8. DOWN/ Newcastle, 12.viii.1912 & (J. J. F. X. King, B.M.). Widespread in Britain but uncommon. M. signatoides Dziedzicki WI/ GL (GR); PDP. Common, developing in Boleti. Females probably belonging to this species have been found at several Irish localities but they cannot be separated satisfactorily from the next. British and Irish specimens seen by the author have genital structure agreeing with that illustrated by Matile (1963) for his M. assimilis (= conformis) and also apparently with Dziedzicki's figure

of signatoides so that it would appear that M. assimilis Matile is a synonym of M. signatoides description having apparently arisen out of the differences between the specimens involved and Laffoon's figure of signatoides; if Laffoon's figure is accurate it may be that the American specimens from which it was drawn represent an undescribed species of the group.

M. sigillata Dziedzicki

WI/ PDP, 10.vii.71 8. co/ gg, 4.vii.69 8.

KE/ KI, 25-27.v.1929, 2 8 (F. W. Edwards, B.M.)

Edwards (1913) only recorded this species from Betws-y-Coed, North Wales, and no fresh records have been published since; there are, however, specimens in the B.M. collection from two localities in northern Scotland.

M. alea Laffoon (= guttata Dziedzicki of Edwards)

WI/ PDP. KD/ AM. CO/ DF. LE/ GW.

MAYO/ Hollymount (W. Ruttledge); Brackloon Wood (P. II. Grimshaw). DU/ Malahide. WI/ Lough Dan (J. N. Halbert) (all Dublin Mus.). DOWN/ Newcastle (J. J. F. X. King, B.M.). Grimshaw (1912) recorded the Brackloon specimen under the name *signata* Meigen; specimens labelled *lunata* and *distigma* Mg. are present in Haliday's collection and it would appear that the *lunata* Fabricius recorded by Haliday (1833) and Walker (1856) was M. alea. Superficially

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similar to the two preceding species, it develops regularly in *Russula nigricans*; females can be recognised by Laffoon's character of the colouration of the hind tibial setulae, which applies to both sexes.

M. rudis Winnertz

WI/ GL (PE), 16.ix.68 &; (GR), 8.vii.69 Q. KE/ DF, 15.x.73, 2 & 2 Q.

KE/ KI, 25-27.v.1929, 2 & 1 9 (F. W. Edwards, B.M.) (Edwards 1929).

Frequent in southern England, at least as far north as Lancs.

M. blanda Winnertz

A pair labelled Ireland in Haliday's collection. The female is labelled *arcuata* and is probably the specimen on which Haliday's (1833) record of *arcuata* Meigen from DOWN/ Holywood was based. *M. arcuata* is itself a synonym of *M. pictula* Meigen (= *M. bimaculata* F. of Edwards). The species is, however, only certainly determined by reference to the male genitalia.

M. cingulum Meigen KD/ AM, 18.x.73 3.

wt/ Glending, 19.ix.48 & (A. W. Stelfox, Washington Mus.). DU/Mt. Byrne, 10.ix.26 & (Dublin Mus.). Haliday (1833) recorded the species from Ireland and there are 1 &, 3 \heartsuit in his collection (DOWN/Holywood).

Fairly common, at least throughout England. It feeds exclusively in *Polyporus squamosus* and is localised by the occurrence of this food-plant.

Zygomyia pictipennis Staeger

Although Mycetophila binotata Haliday MS., described by Walker (1856) and said to be from an Irish type, is a synonym of Z. pictipennis, there are no specimens surviving in Haliday's collection. Indeed Haliday omitted the name in his MS list, only citing notata and vara as doubtfully occurring in Ireland.

Z. vara Staeger

KE/ KI (MW), 16.x.73 &. KD/ AM, 18.x.73 &.

Frequent in Britain.

Z. valida Winnertz

KE/ KI (MW), 16.x.73 &; (LL), 17.x.73 &; (RI), 17.x.73 &; DF, 15.x.73 &.

SL/ GK, 13.v.70 8. WI/ AU, 16.ix.68 8.

DOWN/ Stormont, 13.iv.74 &, Rostrevor, 15.iv.74 Q (A. Irwin).

Probably common in Ireland as it is in Britain. A few Irish males apparently belonging to Z. valida have the hypopygium more deeply excavated ventrally than usual but otherwise agree with typical specimens collected in the same localities (Killarney district).

Z. humeralis Wiedemann

ке/ DH, 15.х.73 8; км, 15.х.73 8.

DOWN/ Stormont, 17.viii.74 9 (A. Irwin).

Frequent throughout Britain.

Z. notata Stannius

DOWN/ Stormont, 23.xii.73 & (A. Irwin).

Walker (1856) recorded this species from Ireland and there are two females possibly belonging to it in Haliday's collection. It is frequent throughout Britain.

Sceptonia nigra Meigen

Haliday (1833) recorded this species from DOWN/ Holywood and there are a pair labelled Ireland in his collection. Other Irish specimens examined ($\kappa E / \kappa I$ (MW); $\kappa D / AM$ and DOWN/ Stormont (A. Irwin)) are females which cannot be separated from S. membranacea Edwards. S. costata van der Wulp

ке∕ дн, 15.х.73 & ♀.

MEATH/ Laytown, 1897 9 (Dublin Mus.).

Rather local in southern England.

S. fumipes Edwards

WI/ GL (PE), 16.ix.68, 2 &; 24.v.70, 2 &, 1 9; GM, 17.ix.68 9.

Infrequent but widespread in Britain.

Platurocypta testata Edwards

DOWN/ Rostrevor, 15.iv.74 8, oakwood (A. Irwin).

The two British species of *Platurocypta* develop in Myxomycetes. They are both fairly frequent in Britain. *Epicypta scatophora* Perris RO/ LK, 11.v.70 \Im . Scarce in Britain, the only published records being from Cambridgeshire.

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