

Fungus Gnats Recording Scheme

Newsletter 10 Spring 2018

The previous Newsletter, which appeared in the 2016 Autumn Bulletin, mainly related to 2015. It included 2016 records only for *Macrorrhyncha hugoi*, *Greenomyia mongolica* and *Trichonta fusca*. Other findings for 2016 and those for 2017 are included in the present Newsletter.

The total number of species for which records were so far available from all sources for 2015 was reported as 356. The total for 2016 was 382 and for 2017 it was 369, so these results with disparate levels of recording in different regions are remarkably consistent. Thus records for approaching 200 of the British species are missing in a given year, but this is not unexpected given the relatively small number of recorders and the coverage of sites visited. 2016 and 2017 together provided records of 412 species. The three years including 2015 reached a total of 436.

Results of Field Meetings in 2016 and 2017

There were three Dipterists Forum field meetings in each year. I attended the summer meeting in 2016 and the autumn meetings in both 2016 and 2017.

The number of species recorded at each meeting were:

2016: Somerset Levels 20 – 22 May (20); Canterbury, Kent 2 – 9 July (114); Northamptonshire 9 – 12 October (79).

2017: Northamptonshire 25 – 28 May (62); Snowdonia 10 – 16 June (81); Farnborough, Hampshire 14 – 17 October (178).

Somerset Levels 20-22 May 2016: the only fungus gnats seen were obtained by Martin Drake at three sites, Rodney Stoke Wood, Priddy Mineries and Ebbor Gorge. *Mycomya pectinifera* was among 16 species at the latter site (ST522455) on 22 May.

Canterbury, Kent 2-9 July 2016: a summary of the findings at this meeting was given by Stubbs (2016) and occurrence of *Trichonta fusca* was reiterated in Chandler (2016). Several other species were new records for Kent and some of these are mentioned by Alexander (2017c) as they also occurred in his survey at Ashenbank Wood in West Kent. It was also good to see *Leptomorphus walkeri* at two sites, Fagg's Wood (TR9834), 6 July (Rob Wolton) and Dering Wood (TQ9044), 7 July (Andrew Halstead).

Northamptonshire 9-12 October 2016: most sites visited were unproductive, due to previously prevailing dry weather, but some interesting records were obtained. On 9 October, *Exechiopsis davatchii* was found at Old Sulehay (TL064985) and *Rymosia fosteri* at Bedford Purlieu (TL0499). At the rather isolated Aversley Wood Nature Reserve (TL1682), near Sawtry, on 11



October, *Macrocera maculata* and *Ditomyia fasciata* were recorded. The latter was also found at Brampton Wood (TL1869) on the same day. By a track (at TL001972) from King's Cliffe towards Westhay Wood on 12 October, ivy flowers were attracting *Greenomyia mongolica*, *Leia fascipennis* and *Macrocera nigricoxa*. On the same day *Mycetophila stricklandi*, a scarce but widespread species, was found at Glaphthorn Cow Pasture (TL003902), a woodland despite its name.

While returning from this meeting on 12 October, I stopped for a short survey at the Tysoe natural burial ground (SP350458) in Warwickshire, where *Macrocera crassicornis* was found in the perimeter hedge.

Northamptonshire 25-28 May 2017: apparently only Alan Stubbs recorded fungus gnats on this meeting, with 26 species found in Salcey Forest but most records coming from Yardley Chase, where a stream gully was remarkably productive on 27 May. This site is described in the report by John Showers (2017) as neglected birch woodland, with "a large amount of standing and fallen dead wood", in which Alan's catch was said to be "one of the best hauls he'd had in 20 years". It comprised 1037 specimens of 50 species, all common with the exception of *Phronia sudetica*. That has a scattered distribution, with an earlier Northamptonshire record from Buckingham Thick Copse in the 1990s.

Snowdonia 10-16 June 2017: it was reported (Stubbs 2017) that fungus gnats were in low numbers, "probably a combination of drought and cool conditions". Most samples seen confirmed this assessment, with relatively few species found at most localities. Eight people contributed specimens: Andrew Cunningham, Martin Drake, Andrew Halstead, Tony Irwin, Nigel Jones, John Mousley, Alan Stubbs and Rob Wolton. Of 32 sites with records, Coed Lletywalter (SH6027) had the highest number with 18 species. The bog species *Macrocera fascipennis* was found at Cors Fochno (SN636938) and Afon Cynfal (SH742416). *Keroplatus testaceus*, with relatively few Welsh records, was found at Trawsfynydd (SH696387).

Farnborough, Hampshire 14-17 October 2017: this meeting covered diverse sites in Surrey and Hampshire. It was attended throughout by Roger Morris and Alan Stubbs, joined by Mark Mitchell on 14-15 October, Tony Davis on 15-16 October, and by Andrew Halstead and myself on 15-17 October. Altogether 21 sites were visited and a total of 178 species of fungus gnats were recorded. The highest site totals were for Fleet Pond (SU8254; 62) and Zebon Copse, also adjacent to Fleet (SU7951; 60). Other

sites with more than 50 were Selborne Hanger (SU7333; 56), Yateley (SU8259; 53) and Shortheath Common (SU7736; 51), Hampshire and Winterfold Woods (TQ0643; 53), Surrey. Roger caught *Sciophila varia* at Yateley and at Fleet Pond (the recent Scottish records of this species and development in *Hydnum repandum* are mentioned on pp 7-8).

The occurrence of *Mycomya danielae* at four sites (Yateley, Odiham Common (SU7553), Rye Common and Zebon Copse) suggested that this species is becoming widespread, at least south of the Thames. It was new to Britain from Headley Heath on the 2013 Surrey meeting, and had since been recorded only at Pipley Wood, Studland on the 2015 meeting and at Chippenham Fen in 2016 by Ivan Perry. 2017 records from Chippenham Fen and Windsor Forest are mentioned below (pp 5 and 7). Other recent additions to the British list that turned up on this meeting were *Exechiopsis seducta* from Winterfold Woods, *Mycetophila sublunata* from Selborne Hanger and *M. stylatiformis* from Selborne Hanger and Zebon Copse. It seems that these are all becoming widespread in S England.

Gnats new to Britain

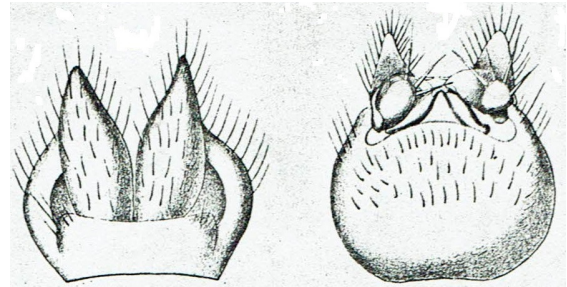
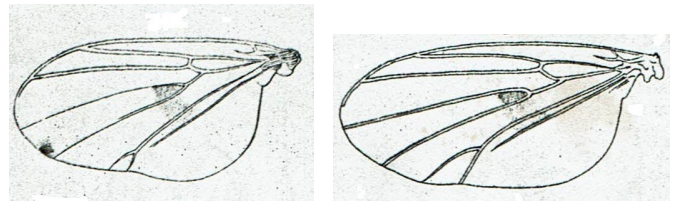
Like other recent additions to the British list, the species dealt with here can presently only be treated as Data Deficient.

Macrobrachius kowarzii Dziedzicki, 1889

This was added from Ashenbank Wood, Kent where Keith Alexander obtained 7 males in a trapping survey in 2016, and it has already been published as new to Britain (Alexander 2017c). As the only European species of the genus it represents a genus new to the British fauna. The distinguishing characters were described in the above paper, and references to its wide European distribution were provided. As mentioned there, these specimens and males that I have seen from elsewhere in Europe have unmarked wings (as shown in the habitus photograph by Jostein Kjærandsen), while ill-defined markings are present on the female wing. Dziedzicki (1889) described and figured examples of similarly marked male wings. Here his figures of this species are reproduced, showing variation in the short posterior fork.



Macrobrachius kowarzii male (from Kjærandsen 2015)

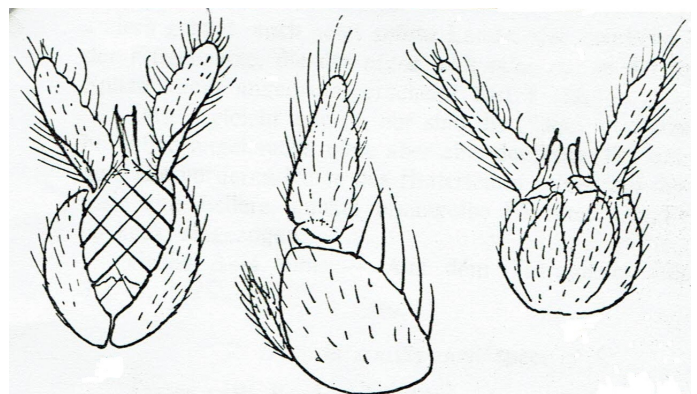


Macrobrachius kowarzii Dziedzicki, 1889: wings and male genitalia – dorsal left, ventral right (from Dziedzicki 1889)

Phronia longelamellata Strobl, 1898

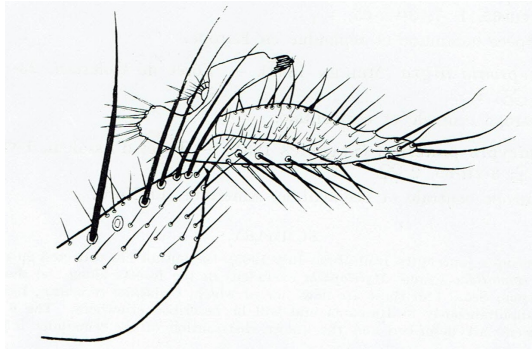
One male was found at Walberswick NNR (TM460728), Suffolk on 29 April 2017, by Ivan Perry.

The name *longelamellata* has previously been on the British list for the species now under the name *P. vitrea* Plassmann, 1999. As explained in Chandler (2006), this was because Lundström (1906) had misidentified this species as *longelamellata* Strobl, 1898. Strobl provided no figures of his species and the elongate cerci found in *P. vitrea* led to this interpretation of the name. In the true *longelamellata* it is the gonostyli that are elongate and it closely resembles the common species *P. nigricornis* (Zetterstedt), also found by Ivan at Walberswick, in structure of the genitalia, the more elongate gonostyli being the most obvious difference (not longer than the gonocoxites in *P. nigricornis*). The identity of *longelamellata* was clarified by Kallweit (1998) from examination of Strobl's type; this species was previously known as *P. minuta* Landrock, 1928 and the figures reproduced below are from that publication.



Phronia longelamellata, male genitalia – ventral (left), lateral and dorsal view (from Landrock 1928, as *P. minuta*)

The European distribution of *P. longelamellata* extends from France through central Europe to Scandinavia and northern Russia. It is also considered likely that *P. dubioides* Matile, 1969 described from Iran is synonymous, as indicated by the genitalia figure.

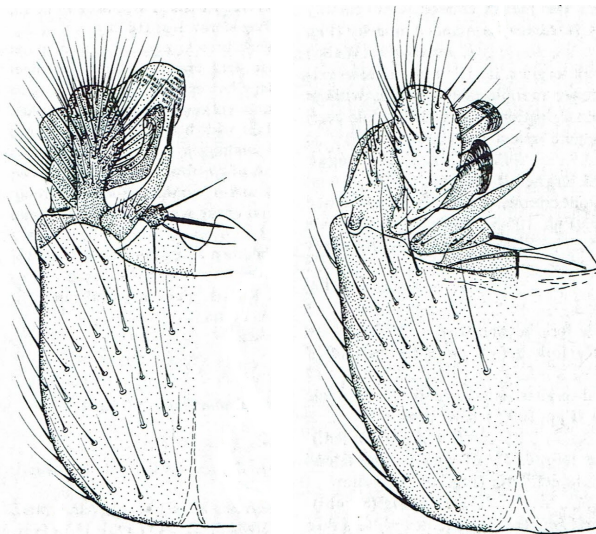


Phronia dubioides Matile, 1969, male genitalia, ventral view (from Matile 1969)

Trichonta tristis (Strobl, 1898)

I swept a male near the perimeter of the Lodge grounds (NH3214) at Dundreggan, on 25 August 2016. A second male was found by Alan Stubbs at Glen Fruin (NS300874) in an alderwood on 9 September 2017.

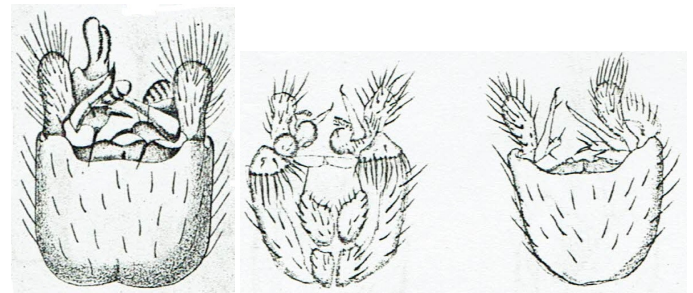
These specimens agree with the genitalia figure of *T. tristis* by Zaitzev (2003). This species closely resembles *T. vulcani* including in the structure of its genitalia but there are small differences, and most obviously the gonocoxites are yellow while they are brown in *T. vulcani*. Both species have the posterior wing fork shorter than usual in *Trichonta*, arising beyond the base of the median fork and tending towards the condition in *Phronia*, in which genus both species were first described.



Male genitalia of *Trichonta* species, ventral view (from Zaitzev 2003): left, *T. tristis* (Strobl); right, *T. vulcani* (Dziedzicki)

A nomenclatural problem is anticipated as Jakovlev (2014) pointed out (based on a communication to him by Jostein Kjærandsen) that the genitalia figures by Dziedzicki (1889) for *Trichonta vulcani* probably belong to this species, which would make *T. vulcani* a senior synonym of *T. tristis*, although Dziedzicki described the genitalia as brown. Genitalia figures from Dziedzicki and Lundström are shown below. Jakovlev (*op. cit.*) suggested that the valid name for the species usually known as *T. vulcani* would then be *Trichonta trifida* Lundström, 1909. However, Kallweit (1998) placed *Phronia appropinquata* Strobl,

1900 as a synonym of *T. vulcani*, based on examination of Strobl's type, so *appropinquata* is the senior available name if these conclusions are correct.



Male genitalia of *Trichonta* species: left, *T. vulcani*, ventral view (from Dziedzicki 1889); right, dorsal and ventral views of *T. trifida* (from Lundström 1909)

Trichonta tristis, in the sense of Zaitzev (2003) followed here, has been recorded from Austria, Switzerland, Finland, Norway and Russia (Karelia, Murmansk Province and East Russia).

Brevicornu arcticum (Lundström, 1913)

A male of *Brevicornu arcticum* was caught by Ivan Perry at the Warburg Reserve (SU715879), Oxfordshire, which is mixed woodland on chalk, on 6 August 2016 (also see p. 6 below).

In Newsletter 6 (Chandler 2013), an as yet unnamed species close to *B. arcticum*, found in Oxfordshire in 2011 by Judy Webb, was newly recorded from the British Isles. It was then noted that the true *B. arcticum* remained known in the British Isles only from a single Irish specimen, found on 10 July 1971 at Powerscourt Deer Park, Co. Wicklow (recorded by Chandler 1977; the genitalia figures from that paper are reproduced in Newsletter 6). It had the distinction of being the only fungus gnat known in Ireland that had not hitherto been found in Britain. The Warburg Reserve specimen agrees with that from Ireland in the structure of its male genitalia, so this species is here reported as new to Britain. As reported in that Newsletter, *B. arcticum* was described from Northern Siberia and Kjærandsen (2015) indicates its occurrence also in Norway, Sweden and Finland, though some records may relate to the above-mentioned similar species.

The Scottish Gnats

The continuing discovery of gnats new to Britain in the Scottish Highlands, albeit in small numbers, suggests that there is still considerable potential for finding previously overlooked species there. As suggested in Newsletter 9, the extent of deforestation in recent centuries may have resulted in some impoverishment compared to comparable habitats in northern Europe. Nevertheless, isolated populations of many species have evidently managed to hang on and may have recently had the opportunity to increase again with reforestation. Several species formerly known only from Scotland within the British Isles have been recorded in the south of England in recent decades, and some are now quite widespread. It may be speculated that the southern populations of some of these species result from new arrivals from the continent, rather than having spread from the Highlands, as is very likely with a number of species new to Britain that have turned up and then spread rapidly within a few

years (*Greenomyia mongolica* is an obvious one that is not likely to have been overlooked earlier).

More Scottish gnats arrive in England

Here are reported single English records of two more “Scottish” species, *Sciophila rufa* and *Phronia sylvatica*, and one of *Docosia morionella*, known in the British Isles otherwise only in Scotland and Ireland. The number of species known only in Scotland remains fairly static as species turning up further south are compensated for by new discoveries in Scotland.

Docosia morionella

At Chippenham Fen (TL645693) on 20 February 2017, Ivan Perry found a male of *D. morionella* on the ground while searching for sphaerocerids.

This is the first English record, so the early date is of particular interest. It was only known in Britain from a Scottish female, caught on a house window at Logie on 23 September 1904 by Francis Jenkinson, and was not found again in the British Isles until a male was obtained on 8 October 2010 in Keith Alexander’s catch from St John’s Wood, Roscommon in Ireland (Alexander & Chandler 2011). Its biology is unknown.

Phronia sylvatica

This species was till recently only known in Britain from a single male caught by Alan Stubbs in open moorland at Loch Tromlee (NN0423) on 11 June 1976. Then Ivan Perry obtained a second Scottish record at Strath Rory (NN652777), 1 male caught by an upland stream fringed with sallows on 13 June 2016. It was then quite unexpected when I found a male of *P. sylvatica*, in Windsor Great Park on 20 July 2017; it was swept along the shallow dry streambed in Old Windsor Wood (SU9773), to the south of Bear’s Rails Pond.

Sciophila rufa

Not having made his annual trip to Scotland in 2017, Ivan Perry concentrated his attention on Flitwick Moor, Bedfordshire, where the wet woodland has proved to be a rich site for fungus gnats. As mentioned below (p. 7) it had been a good year there for the often elusive genus *Sciophila*, with eight species recorded but it was, nevertheless, a surprise when a female of *S. rufa* was found there on 23 September 2017. While females of most *Sciophila* species are not identifiable, that of *S. rufa* can be recognized, apart from its robust appearance and uniformly reddish orange coloration, by presence of anterodorsal bristles on the fore tibia, a character that applies to both sexes.

Unlike the above two species, *S. rufa* has been recorded widely in Scotland and is often first detected by the conspicuous larval webs and cocoons under brackets of *Fomes fomentarius*, usually growing on decaying birch trunks. The fungus occurs in S England, often growing on beech, and *S. rufa* is common on this fungus on beech in N France so there is no obvious reason why it has been so restricted in Britain.

Species presently known in Britain only from Scotland (49) (where 3 or fewer localities are known – 25 species – or there are no records after 1990 – 6 species – this is stated)

Bolitophila bimaculata

Bolitophila fumida (1931 Aviemore)

Diadocidia valida

Symmerus nobilis (1997 Glen Coiltie)

Macrocera aterrima (1953-1969 montane habitats)

Macrocera zetterstedti

Anatella pseudogibba (1967 Kinrara, 1982 & 1993 Grantown)

Boletina digitata (latest record 1934)

Boletina groenlandica

Boletina kivachiana

Boletina landrocki (1999 Abernethy Forest)

Brevicornu canescens (latest record 1913)

Brevicornu fennicum

Brevicornu improvisum (2015 Birks of Aberfeldy)

Brevicornu parafennicum (2010 Dundreggan)

Creagdhubhia mallochorum (1994 Creag Dhubh; 2000 Braemar)

Dynatosoma nigromaculatum

Ectrepesthoneura tori (1999 Abernethy Forest, 2015 Rannoch)

Eudicrana nigriceps (1933 Loch Garten; 1991 Ardvasar, Skye)

Exechiopsis forcipata (2013 Loch Morlich)

Gnoriste bilineata

Gnoriste longirostris (1964 Ben Ledi)

Mycetophila abbreviata

Mycetophila lapponica

Mycetophila mohilevensis

Mycetophila morosa

Mycetophila schnablii

Mycomya bicolor (2015 Rannoch)

Mycomya denmax (3 records, Skye and central Highlands)

Mycomya disa (2012 Dundreggan)

Mycomya fuscata

Mycomya lambi

Mycomya nigricornis

Mycomya permixta

Mycomya punctata (1921 Fort William, 1970 Cluadale, Eigg)

Mycomya shermani

Phronia bicolor (2014 Boat of Garten)

Phronia caliginosa

Phronia tiefii (2004 & 2011, 3 sites in Spey Valley)

Polylepta borealis (1947 Aviemore, 1992 Rannoch)

Rymosia acta

Sceptonia longisetosa (2011 Dundreggan)

Sciophila krysheni (1988 Rannoch, 2000 Braemar)

Sciophila limbatella (1910 Nethy Bridge, 2000 Braemar)

Sciophila salassea (1999 Abernethy Forest)

Syntemna setigera (1999 Abernethy Forest)

Syntemna stylata

Trichonta flavicauda (1908, 1923 Nethy Bridge, 2003 Braemar)

Trichonta tristis (2015 Dundreggan, 2016 Glen Fruin)

Species that are also now known from S England (first English records are since 1990; year of first record stated) (7)

Docosia morionella (2017; only Scottish record 1904)

Dynatosoma cochleare (England 1990, Wales 1999; widespread in Scotland, now widespread but still scarce in S England north to S Yorkshire, 1 site in S Wales)

Ectrepesthoneura pubescens (1990 Dry Sandford Pit, Berkshire, only English record; 4 Scottish sites 1978 – 2002)

Mycetophila caudata (1997; widespread in Scottish Highlands, now also becoming so in SE England)

Phronia sylvatica (2017; two Scottish sites 1976 and 2016)

Sciophila rufa (2017; widespread in Scotland)

Trichonta bicolor (1994 King’s Forest, Suffolk; 1998 Epping Forest, Essex; 2016 Flitwick Moor, Bedfordshire (see p. 7 below); only one old Scottish record 1909 Dingwall)

Recording at Windsor Forest and Great Park

A full account of the Diptera of Windsor Forest and Great Park is still in preparation. In 2016 I made 17 visits, continuing to cover the area of the Great Park south of Bishops Gate on 10 visits and also including the copse known as “Wilderness” to the south-west of this area, not previously sampled since 1967, on four of these occasions. The Highstanding Hill and Cranbourne Chase areas of Windsor Forest, Cranbourne Park, Russell’s Pond and Bear’s Rails Pond were also visited. Altogether 129 species of fungus gnats were recorded. The further find of *Macrorrhyncha hugoi* was reported in Newsletter 9. *Mycetophila stylatiformis* was found in several areas. A copulating pair of *Neoempheria bimaculata* was seen in flight near the stream south of Bishops Gate on 14 September. At Cranbourne Chase on 5 October, a female of *Leptomorphus walkeri* was found – it had only been recorded once before at Windsor when it was reared in 1979. This and some other fungus gnats were included in an exhibit on the Diptera fauna of Windsor Forest and Great Park at the 2016 Exhibition of the British Entomological & Natural History Society (Chandler 2017), that also appeared at the Dipterists Forum AGM in that year.

In 2017 I made 14 visits, covering most of the same areas, but also including two visits to the Blacknest Gate (west) end of Virginia Water, and latterly several visits to the South Forest, which had not been included in other visits in recent years. The annual total of 159 species was boosted by autumn visits to South Forest, which also added several species to the overall list for the estate, now standing at 291. Most of the additions were widespread species, but the visit on 22 November added *Mycomya danielae* and *Trichonta nigritula*. *Dynatosoma cochleare*, previously found at Highstanding Hill in 2014, was recorded at Cranbourne Chase on 7 July, when 71 species of fungus gnats were among large numbers of flies sheltering in a dry but humid stretch of streambed. The vicinity of Bear’s Rails Pond and the area of Old Windsor Wood to the south of it were also visited, and the most unexpected find in 2017 was from this area, a male of *Phronia sylvatica*, of which the only previous British records were two from fairly open habitats in Scotland (see p. 4).

Malaise and interception trap samples obtained by Keith Porter at several sites on the estate in 1992 and 1993 were determined during 2016 and included 161 species, of which 7 have otherwise not been recorded for the estate.

Lincolnshire

David Sheppard has been running Malaise traps at a range of nature reserves in Lincolnshire in recent years. Since October 2017 he has passed to me the fungus gnats from these catches. These were mainly from the period 2014 to 2016, with some 2017 samples. As this is an under-recorded part of the country this material, which included 187 species, was very welcome.

The most productive site was Snipe Dales (TF327683) with 136 species recorded; this is a complex of wooded and grassland valleys - part was planted with conifers in the 1950s/60s, but these were clear-felled in the 2000s and the wooded areas are now managed by natural regeneration. Notable species from this site were *Dynatosoma cochleare* (August 2015) and *Allodia angulata* (August to October 2017).

Brevicornu arcticoides, with only two previous British sites known (Sandwell Valley, Staffordshire, 1988; Sutton Broad, Norfolk, 1989, 1990), was found at three sites, the inland Raithby Beck Wood (TF3668) and two coastal sites, Wolla Bank Pit (TF555748) and Gibraltar Point (TF562579), respectively north and south of Skegness. Raithby Beck Wood is a recently developed woodland/grassland conservation area with three ponds, a marginal stream and several very old willows along the edges, with some planted trees now about 10 feet tall and is densely shaded along the streamsides. Wolla Bank Pit is one of the clay pits dug to build the new sea walls after the 1953 east coast floods; it has a couple of large ponds, surrounded by willows and some areas of grassland and scrub. At Gibraltar Point traps were run alongside bramble and hawthorn scrub on fixed dunes, now isolated from the sea by one or two outer rows of dunes and saltmarsh.

The above location at Gibraltar Point, with 75 species recorded in April-October 2016, also provided records of *Macrocera crassicornis*, *Azana anomala*, *Mycetophila caudata* and *Sceptonia tenuis*. Trapping at a different part of Gibraltar Point (TF563582) in August 2017 produced 35 species, including *Sciophila pomacea* (1 male and 2 females), bringing the recent list for this reserve to 86 species. There are earlier records made in 1968 by B. Wilkinson (without precise grid reference) of 18 species, of which 9 are in common with the recent trapping.

Sciophila pomacea, of which there are relatively few British records, is thought to be specific to the bracket fungus *Phellinus tuberosus* (= *P. pomaceus*) which grows on trees of the family Rosaceae. At Gibraltar Point, however, it is possible that the host is *Phellinus (Fomitiporia) hippophaeicola*, which grows on sea buckthorn *Hippophae rhamnoides* (Elaeagnaceae), which is very common at this site as elsewhere on the Lincolnshire coast (Charlie Barnes *pers. comm.* to David Sheppard).

Mycetophila caudata, also recorded at Minting Wood (TF160737), and *Dynatosoma cochleare* are examples of species formerly recorded in Britain only in Scotland, but now being found widely in S England, as discussed above (p. 4); in the case of *M. caudata* it is a northern extension of its southern range.

North Wales

Since 2015 Andrew Graham has supplied spreadsheets of records of fungus gnats he has identified from North Wales, already amounting to 114 species. These include *Exechia styriaca*, one of the few species within Britain only recorded from Wales, from Trawscoed (SH848322) on 30 September 2015 – it is known from 8 hectads in N Wales from the 1970s, with a more recent record from one of the same localities (Mallwyd in 1994) and one locality in S Wales, Stradey Woods in 1995; the new record provides an additional hectad for this species.

Twenty species were obtained at MV lights, among them *Paratinia sciarina*, a species well known to be attracted to light traps, at Trawscoed (SH845326) on 2 August 2015 and 28 March 2017. Other species found in this way were *Boletina gripa*, *Coelosia tenella*, *Neoempheria pictipennis*, *Phthinia mira*, *Anatella setigera*, *Brevicornu griseicolle*, *B. sericoma*, *Cordyla crassicornis*, *Exechia spinuligera*, *Mycetophila fungorum*, *M. luctuosa*, *M. marginata*, *M. ocellus*, *M. ornata*, *M. rudis*, *M. unipunctata*, *Phronia biarcuata*, *P. humeralis* and *Zygomia humeralis*.

Andrew's sister Janet has photographed most of the species they have recorded, and her excellent photographs of genitalia and whole insects can be viewed on her Flickr site: <https://www.flickr.com/photos/149164524@N06/sets/72157680963188901/>

Mitcham Common, Surrey

Roger Morris has been investigating the Diptera fauna of Mitcham Common, Surrey during 2017, and has provided samples of fungus gnats collected on 25 dates from 28 August until 18 November. While they have only occasionally been numerous in certain areas, the overall results are encouraging with records of 120 species. There were very few previous gnat records from this site. Roger had published an account (Morris 2003) of some groups of Diptera from the Common, in which 9 species of fungus gnats were listed in an Appendix. Altogether 15 species were collected by Roger in the 1990s and 3 by Alan Stubbs in 1974. An entomological survey of the Common in 2008 by Graham Collins (Collins 2008) added one fungus gnat *Macrocera phalerata*. All but 4 of these earlier recorded species were also found by Roger in 2017.

Mitcham Common comprises 182 hectares (452 acres) of ancient common land on gravels overlying London Clay. Having earlier been grazed, in the 19th century it was subject to extensive gravel extraction, of which some of the present ponds are a relict. It was local opposition to the gravel extraction that resulted in survival of the Common. George Parker Bidder QC (1836-1896) was responsible for its protection under the Metropolitan Commons Act of 1891. He had roamed the Common as a boy, when his family resided at Mitcham Hall, purchased in 1846 by his father, the civil engineer of the same name. A memorial to him was erected on the Common after his death from a road accident in 1896, by which time his son, another George Parker Bidder (1863-1953), had begun his career as a marine biologist, specialising in sponges, and had moved away from Mitcham.

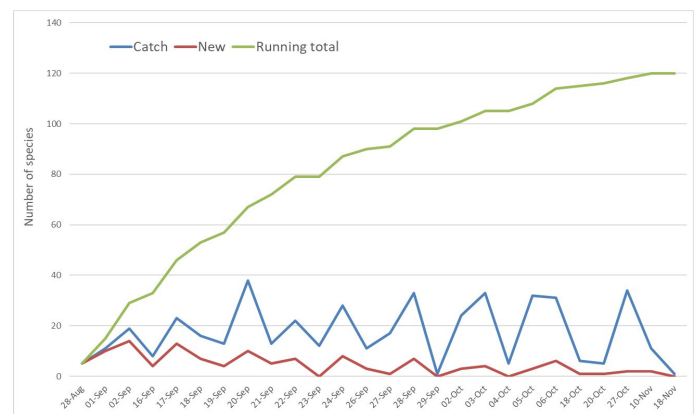
From 1891 the Common has been managed by a board of conservators, whose present priorities are restoration of acid grassland and heathland, and there is now a range of habitats including scrub and dry woodland dominated by oak and hawthorn. The oldest existing woodland on the Common has apparently developed since 1891, as it is estimated to be about 100-120 years old; a row of oaks on one boundary (Gunsite & Golf Course) is older, around 170 years, but woodland in the Seven Islands Pond area and two woods on the Golf Course are no more than about 70 years old (Roger Morris *pers. comm.*). The extent to which saproxylic species have colonised is therefore of interest.

The vicinity of the golf course (TQ2867) was most productive with 85 species recorded, closely followed by the area around Seven Islands Pond (TQ2868) where the total was 83. The Gunsite (also in TQ2867) provided 34 species, and several locations within TQ2967, which overlaps the golf course, produced 35 species. The Seven Islands Pond area was found to be rich in fungi by Tortelli (2009); his survey was carried out in a dry year when areas of oak woodland were most productive.

Of those gnats found at Mitcham with known biology 56 develop at least in part in saproxylic fungi, and at least 25 have an obligate association with saproxylic fungi or rotten wood. Some species are probably recent arrivals in the area, e.g. *Mycetophila sigmoides*, of which the first British record was in 1998 and it is

now widely distributed in S England north to Yorkshire – it develops in tough polypores, especially *Daedaleopsis confragosa* (recorded on willow at Mitcham by Tortelli 2009). The same applies to some species of unknown biology, such as *Mycetophila caudata* (discussed on pp 4 and 5) and *Exechiopsis davatchii*. *Keroplatus testaceus*, found on five dates and in three of the areas, is clearly well-established at Mitcham. This and *Ditomyia fasciata*, also on five dates and in two areas, have both evidently increased and spread more widely over the country in recent decades. Perhaps the most unexpected find for the reasons stated below was *Manota unifurcata*, one male in the Seven Islands Pond area on 28 August. This, like most of the saproxylic species, will have arrived as the Common became more wooded and suitable habitats for saproxylic fungi developed.

Roger has provided this chart to show how the total of 120 was achieved by a steady rise in the number of species caught over this period. As the sampling started quite late in the year, he expects to add spring and early summer species in 2018.



Other recording in 2016 and 2017

Batches of fungus gnats were received from Keith Alexander, Pete Boardman, Andrew Cunningham, Martin Drake, Adrian Dutton, Andrew Foster, Tony Irwin, Nigel Jones, Mark Mitchell, Roger Morris, Ivan Perry, Alan Stubbs and Rob Wolton. Records were also provided by Paul Bowyer and Alistair Shuttleworth. Further species reared from reliably named fungi were received from Richard Fortey.

Ivan Perry made five more visits to the **Warburg Reserve** (SU715879), Oxfordshire, which is mixed woodland on chalk, from 29 May to 8 October 2016, and recorded 143 species of fungus gnats, a similar total to the previous year. He again recorded *Exechiopsis davatchii* there (24 September). The most significant new records for the site were *Mycetophila hyrcania* (1 ♂ on 24 July) and *Brevicornu arcticum* (see p. 3 above). This is the second British record of *M. hyrcania* which was added to the British list in Newsletter 9 from three males obtained in an aerial trap at Chalkhills Farm (SU640780), Buckinghamshire by Martin Townsend in 2014.

Ivan continued to visit **Flitwick Moor**, Bedfordshire, adding to his previous records for that site, which comprises both wet alder wood and oak and birch woodland. He made 13 visits in 2016 and 14 visits in 2017. Additional species recorded in 2016 increased the list to 226, and in 2017 this rose to 259. *Phronia portschinskyi* continued to be recorded here annually, while all other British records are from wetlands in Wales and East Anglia. *Mycetophila stylatiformis* and *Sciophila buxtoni* were

again found in both years. In 2016 finds included *Exechiopsis davatchii*, *Rymosia britteni*, *Trichonta bicolor* and *Neoempheria bimaculata*. In 2017 the genus *Sciophila* was particularly well-represented with 8 species recorded, of which four were new records for the site: *S. antiqua*, *S. interrupta*, *S. lutea* and most surprisingly *S. rufa* (see p. 4).

On a visit to the New Forest from 16-20 July 2016, Ivan recorded 114 species, with most records from **Denny Wood** (SU334069) and **Pondhead Inclosure** (SU309074). Denny Wood produced *Sciophila baltica*, *Mycetophila caudata* and *Phronia sudetica*. *Trichonta clavigera* was found at both sites. At Pondhead Inclosure on 19 July *Zygomyia matilei* was among the catch. It was new to the mainland of Britain when Ivan found it at the Warburg Reserve in 2011 (Chandler 2013), having previously been known from the Channel Islands, and it has since been found by Rob Wolton in Devon (Wolton *et al.* 2017; see below).

At the edge of a ride on **Chippenham Fen** (TL645693) on 29 October 2016, Ivan found *Phronia portschinskyi* and *Mycomya danielae*, which had then only recently been recorded as new to Britain from Surrey (Chandler 2014). In 2017 he again found *M. danielae* there on 27 October. Also recorded in that year were *Paratinia sciarina*, *Mycetophila sigmoides* and *Trichonta nigrifulva*; the latter species was quite frequent at the edge of a reedbed. More remarkable was the finding of *Docosia morionella* (see p. 4) on the very early date of 20 February 2017, the only fungus gnat seen on that visit.

Ivan's trip to Scotland from 12-18 June 2016 experienced wet weather and the catch was limited to 92 species. On the other hand he explored new ground in Ross and Sutherland, reaching the north coast in adverse conditions. The most significant find was the second British record of *Phronia sylvatica* (see pp 4-5). Among other finds in 2016 was *Neoplatyura biunbrata* at The Gannel, Cornwall (SW798610) on 8 September, and *Mycetophila stylatiformis* at Walberswick Fen Covert (TM460728) on 30 June and 15 August. His total catch in 2016 was 280 species.

Tony Irwin supplied samples from **Winterton NNR** (TG48-49/19-20), East Norfolk, caught by a Malaise trap progressively deployed at several sites across the reserve from April 2014 to October 2014 and then from October 2015 to April 2016. The sites included various dune and heathland habitats, with some birch and oak woodland. The 52 species found included *Pyratula perpusilla*, *Anatella dampfi* and *Cordyla insons*.

Roger Morris toured Scotland from 31 May to 9 June 2017 and recorded fungus gnats at 30 sites, with 94 species among the catch. Those with a mainly Scottish distribution were *Bolitophila nigrolineata*, *Rymosia setiger*, *Mycetophila bohémica*, *M. signata* and *M. subsigillata*, all from Craigellachie NNR (NH889121), the most productive site with 42 species; *M. bohémica* was also found at NN914390, and *R. setiger* at NM725927.

Keith Alexander provided gnats from three sites that he surveyed in 2016, of which **Tyntesfield**, Gloucestershire and **Ashenbank Wood**, Kent were the subject of articles in *Dipterists Digest* (Alexander 2017b, 2017c), citing the less common fungus gnats recorded. Most significant was the addition of *Macrobrachius kowarzii* to the British list from Ashenbank Wood (see p. 2). *Mycetophila stylatiformis*, evidently now well-established in England, was recorded at both those sites. He also obtained fungus gnats in catches from three sites in 2017. **Pixton Park, Dulverton** (SS9226-9227) produced records of 52 species

including *Manota unifurcata* (see below); a site in Cumbria produced 165 species, including *Mycetophila immaculata*.

Rob Wolton continued to run a Malaise trap at **Scadsbury Moor**, Rutleigh (SS518014), on his Devon farm in 2016, and again obtained a considerable catch of gnats. The results of this and the previous two years were summarised in Wolton *et al.* (2017), in which those fungus gnats with conservation status were listed. The total of fungus gnat species recorded for the site was 204. The most significant 2016 records were of *Monocentrotroa favonii*, *Manota unifurcata*, *Neoempheria winnertzi* and *Zygomyia matilei*. Together with the earlier records from other parts of his farm, the overall total of fungus gnat species for the farm has reached 257 (all within hectad SS50). Material was also collected by Rob at several sites in 2017 (see *Epicrypta fumigata*, p. 8).

Martin Drake provided, in addition to his catches from the Kentish and Welsh Field Meetings discussed above (p. 1), numerous samples collected by him in 2016 and 2017 in Devon and Somerset. The overall species total of fungus gnats was 171 for 2016 and 108 for 2017. These included *Leptomorphus walkeri*, of which there are few south-western records, from Woolfardisworthy (SS8208) on 14 July 2016. Hook Wood (ST3005) produced *Mycetophila strigatoides* and *Synplasta ingeniosa* in 2017. *Trichonta pulchra* was found at Dawlish Warren (SX983790) on 12 August 2017.

Richard Fortey continued to send flies for identification that he had reared from fungi collected at **Grim's Dyke Wood** (SU738843), his own woodland in the Chilterns. These included *Sciophila baltica* reared from the tooth fungus *Hydnum repandum* in October 2017; *S. baltica* was reared together with *S. varia* from the same fungus from Devon in 1980. There are only nine previous British records of this species, all in S England.

Gnats received from Pete Boardman included *Sciophila interrupta*, another species known to develop in *Hydnum repandum*, from Kings & Hargreaves Wood SSSI (SJ866392) at Trentham, Staffordshire, on 31 July 2017.

Diptera samples collected at five sites in the East Anglian fens, examined for Adrian Dutton, included *Rutylapa ruficornis* from Woodwalton Fen (TL232847) on 30 June 2016.

I made further visits to the Trees for Life Estate at **Dundreggan** in both years, 21-25 August 2016 and 6-8 September 2017. On the first visit 99 species of fungus gnats were recorded, on the second which was mainly wet weather only 38 species. Together they increased the total species for the estate to 219. The record of *Sciophila varia* on 21 August 2016 has already been published in the above-mentioned note on this species (Alexander 2017a). Also on that trip *Mycomya nigricornis* was found along the Wild Boar Trail (NH3314) on 22 August. *Trichonta vulcani* was found by a stream in the woods north of the Lodge (NH325140) on 23 August, and it was realised sometime later that a similar specimen found on 25 August, near the Lodge differed in its genitalia and was the first British specimen of *T. tristis* (see p. 3).

After leaving Dundreggan in 2016, I joined a party of dipterists staying at **Kingussie** for a week, from 26 August to 2 September, organised by Roger Morris. As well as Roger, others adding to gnat records were Alan Stubbs, Andrew Halstead, and John and Barbara Ismay. Keith Alexander contributed the rearing of *Sciophila varia* from Logie (Alexander 2017a). We covered a good number of sites and recorded at least 179 species. Species found that only occur in Scotland within the British Isles were

Brevicornu fennicum from three sites (Altnagloich, NJ163284; Loch Morlich, NH9809; Rothiemurchus, NH91), *Mycetophila abbreviata* (Ellan Wood, Carrbridge, NH9022) and *M. schnablii* (Darnaway Forest, NH985481). *Phronia vitrea* was found at three sites: Bridge of Brown, NJ122204; near Loch Belivat, NH959473; Lynachlaggan, NH821024. *Mycetophila lubomirskii* was found on the shore of Loch Insh (NH83505).

There was a similar pattern in 2017, when on 8 September I travelled from Dundreggan to **Tarbet**, on the west side of Loch Lomond to join some of the same party as at Kingussie, until 15 September. Roger, Alan and Andrew again contributed to gnat records. Keith collected *Hydnum repandum* at Cormonachan Woods (NS1997) and again succeeded in rearing *Sciophila varia*. This week was showery, but fieldwork was possible on all but one day and a good number of sites around and to the west of Loch Lomond were visited. Altogether 142 species of fungus gnats were found. These included the second British record of *Trichonta tristis* (see p. 3) and two males of a *Phronia* species that has yet to be identified – one male each from two sites, Drimsynie Forest (NN191050) and Glen Nant NNR (NN012296). *Keroplatus testaceus* was also found at Glen Nant, *Pseudorymosia fovea* and *Speolepta leptogaster* at Glen Loin (NN3005). At Falls of Falloch (NS334207), *Rymosia acta*, with only 5 previous sites recorded, from Perthshire to Sutherland, and *R. armata* were among the catch.

Following the BENHS saproxylic field meeting at Leigh Woods, Bristol on 24 June 2017, Bob Fleetwood sent for identification flies trapped near a sap run on ash at this wood, which included 12 species of fungus gnats, among them *Mycetophila sigmoides*.

In 2017 I made three visits to **High Park, Blenheim** as part of the ongoing survey there, organized by Aljos Farjon. With dry conditions prevailing at this limestone site, 51 species were recorded. On the final visit on 12 October, a more humid area of plantation woodland just outside the survey area was also visited; here a dry gully was sheltering gnats and 43 species found here added 27 to the total for the Park. No rare species were found.

My further visits to **Fleet Pond** Nature Reserve, Hampshire, with diverse woodland and wetland habitats in the 1km squares SU8154, SU8254 and SU8255, had increased the total for the reserve to 108 species. The visit on 17 October 2017 during the field meeting (see pp 1-2) added 19 species, bringing it to 127.

Other significant records

Ditomyia fasciata

Egglesstone Abbey (NZ062150), North Yorkshire (south bank of River Tees), 7 September 2017; Wingate (NZ3937), Durham, 24 June 2017 (R. Morris).

Records from 2015 included some from Derbyshire and Nottinghamshire that were close to the then known northern limit of its distribution, so these extensions north are quite significant.

Keroplatus testaceus

Steeple Clump (NT1582), Dalgety Bay, Fife (V.C. 85), small mixed woodland (Scots pine and mostly sycamore), pupae 24.ix.2017, adult emerged sometime before 3.x (pupae found by Vladimir Krivtsov, reared by Alistair Shuttleworth). Pupae with an appearance of being "trapped in ice" were found under some rotting wood, from which an adult emerged. A larva was found at the same time. There are several Scottish records, but this is the first from the east side of the country.

Epicypta fumigata

Whiddon Deer Park (SX724891), 1.ix.2017, 1 ♂ (R. Wolton).

This species was new to Britain when recorded by Rob Wolton from Scadsbury Moor (SS520015), Rutleigh, Devon in successive years from 2013 to 2015 (Chandler 2014, 2015a, 2016). It had yet to be found elsewhere in Britain, so it is interesting that Rob has found it at another Devon site.

Greenomyia mongolica

Anglesey Abbey (TL528624), Lode, Cambridgeshire, 14.v and 28.viii.2017, 1 ♀ around compost heap on each date (I. Perry); Fenny Meadows (TL158968), Peterborough, 11.vii.2017 (A.E. Stubbs); Shrewsbury, garden (SJ491113), 10 October 2017 (N. Jones).

The biology, distribution and recent spread of this species were discussed in a previous Newsletter (Chandler 2015a). Records from Kent, Hampshire and Cambridgeshire were added in Newsletter 9; a Northamptonshire record is also cited on p. 1.

Manota unifurcata

Pixton Park (SS929270), South Somerset, 12.vii-24.x.2017, 1 ♂ in flight interception trap hung inside a cavity in a hollow ash, bearing a bracket of *Inonotus hispidus* (K.N.A. Alexander).

This species was discussed in some detail in Newsletter 7 (Chandler 2014), including a distribution map showing scattered records in S England north to Cambridgeshire, and in S Wales. It was mentioned that it is possibly too secretive in behaviour to be detected more frequently. In Newsletters 8 and 9 (Chandler 2015a, 2016) records from Surrey, N Wales, Derbyshire, Nottinghamshire and Devon were added. Further records from Devon (Wolton *et al.* 2017) and Mitcham Common, Surrey are cited above (pp 6-7).

Mycetophila immaculata

Zephon Common (SU796519), Hampshire, 24.x.2017, 1 ♂ (M. Mitchell). A 2015 record by Andrew Foster from Horner Wood, Somerset was reported in Newsletter 9 as the first British record in the present century, and another 2017 record from Cumbria is cited above (see p. 7); there are earlier records from ten hectads, the latest of these being from Scotland in 1999.

Looking for *Leia*



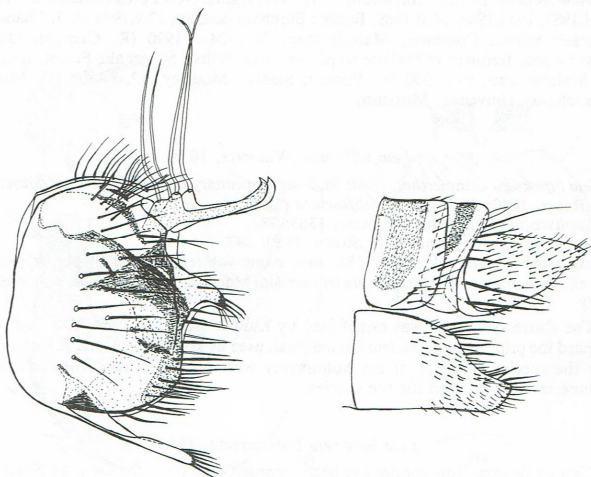
The above photo was taken from a TV screen, when the wearer was talking about a new Star Wars film. Perhaps she didn't know the gnatty significance of her quest. Clearly it was an encouragement for all gnat enthusiasts to go out and search for this interesting genus of fungus gnats. Acquiring the tee-shirt is obviously a must, so their mission can be identified in the field.

Leia are attractive gnats. Most are mainly yellow, sometimes with various black markings, and there is usually a preapical wing band with more extensive wing markings in some species.

We have ten species of *Leia* in the British Isles, of which all but one, *L. longiseta*, can be named using Hutson *et al.* (1980). Their key included *L. arsona*, a species of subtropical origin that has been introduced to Europe with imported plant material, though it occurs outdoors in southern Europe and even in the Channel Islands. It was described by Tony Hutson (Hutson 1978), when it had been found infesting root ginger of Brazilian origin at a warehouse in London previously used for banana ripening. The only other record in Britain was when Andrew Halstead (Halstead 2004) reported its association with decayed bulb scales of a potted cultivar of *Hippeastrum* (Amaryllidaceae). That plant had originated from the Netherlands, where *L. arsona* has since proved to be common in nurseries and it is probably dependent on fungal decay of various hot-house plants (Chandler & Pijnakker 2009).

Of the nine native species only five have been recorded in 2016-2017, although two others (*L. subfasciata* and *L. crucigera*) are not infrequent. In Europe, however, there are at least 20 species, of which most occur in central and southern Europe. Unusually for fungus gnats, the Scandinavian fauna is not richer than ours – nine species are also included in the checklist of Nordic gnats (Kjærandsen 2015), with the difference that they have *L. picta*, a widespread species in Europe, but lack *L. piffardi*.

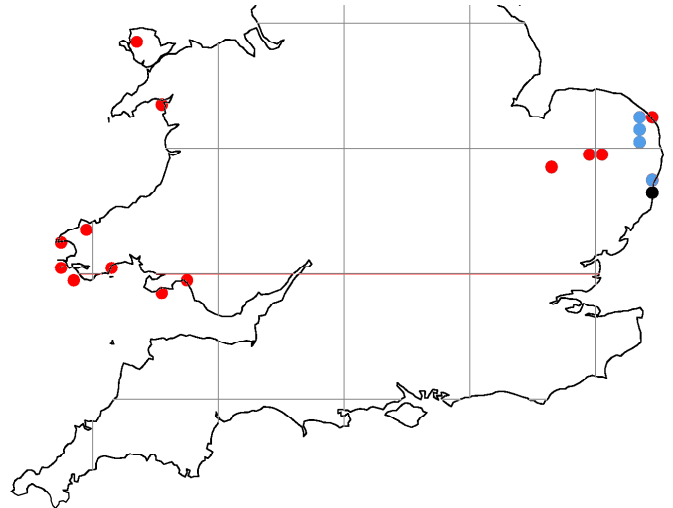
Leia longiseta was added to the British list by Chandler (1992); it was described from the Netherlands in 1938 and had by 1992 only also been recorded from the German North Sea islands; Kjærandsen (2015) indicates occurrence in Norway and Finland. It has distinctive male genitalia; the figure below shows the obvious reason for its specific name. It runs to couplet 8 (*L. bimaculata* and *L. piffardi*) in the key by Hutson *et al.* (*op. cit.*). It is variable in coloration but resembles some specimens of *L. bimaculata* in having black thoracic markings, differing in having a cloud behind the posterior wing fork, as in *L. piffardi*.



***Leia longiseta*: left male genitalia, right female ovipositor, both left lateral views (from Chandler 1992)**

It was found in trapping surveys of wetlands in Wales and East Anglia, where it occurred in great numbers at some sites. The Welsh records are from the period 1987 to 1989, with all sites curiously close to the coast. On the floating fen at Llyn Hafodol, Anglesey, on 11 July 1987, adults were also found on *Salix* foliage by Alan Stubbs and myself. The East Anglian records span the years 1988 to 1993, with two exceptions that David Gibbs recorded it at Minsmere in August 2004 and Martin Drake

found it at Sutton Fen, a known site, on 24 June 2012. Then Martin also recorded it on 19 July 2012 at Catcott (ST3939) on the Somerset Levels, the only recorded hectad not shown on the map below, which was prepared in 2011. It appears to be restricted to wetlands, its habitats including *Salix* carr, fens, reedbeds and a basin mire with *Menyanthes*, but its biology remains unknown. It should be sought in similar habitats elsewhere.



***Leia longiseta*: records to 1989 (red), 1990-2011 (black) and from both periods (blue)**

The other rarely recorded species is *L. piffardi*, with records from only eleven hectads. Nine of the 13 British records were obtained by rearing from bird nests (blackbird, song thrush, magpie and buzzard are recorded) or dreys of both red and grey squirrels. This suggests that adults are elusive, and it may be overlooked because of occurring mainly in the canopy. My only experience of this species was on 3 July 1985 in Somerset, where a male was swept from the edge of Withial Combe (ST565380) near West Pennard, and that is apparently the most recent British record. It resembles paler specimens of *L. bimaculata* with a yellow thorax but has quite different male genitalia.

Another species with similar habits is *L. bilineata*, the third species with Nationally Scarce status but in this case fairly widespread throughout Britain. It has also been reared from the drey of a red squirrel, from under oak bark (possibly a pupation site) and from bird nests; however, Kurina (1994) reared it from the polypore fungi *Piptoporus betulinus* and *Phellinus igniarius*, so its precise biology is difficult to understand.

Their arboreal habits are shared with most other members of the genus. Even the commonest species such as *L. fascipennis* and *L. winthemii* are most often found by sweeping tree foliage, especially at woodland edge and in hedges. The biology of the genus is poorly known – only *L. bimaculata* is well known as a fungus feeder; it is highly polyphagous in soft fungi, terrestrial as well as saproxylic. Otherwise *L. winthemii* has been reared from species of *Lactarius*, *Paxillus*, *Lentinellus*, *Peziza* and *Pleurotus* and *L. crucigera* once from *Neolentinus tigrinus*. The absence of any rearing records for the commonest species *L. fascipennis* suggests that its larvae are unlikely to feed in fungi, at least of the more readily sampled sorts. *Leia cylindrica* is another fairly common species; Jakovlev (2011) reported that it has been found in an emergence trap over decaying logs, but nothing else is known of its biology.

There is plenty of scope for the *Leia* hunter to find new information on the behaviour and biology of this distinctive genus. There is even the chance that some of the other European species may turn up here, as happened with the related genus *Greenomyia* – we still only have *G. mongolica* while three other *Greenomyia* species occur in Europe. Perhaps *Leia picta* is the most likely to arrive – it is found in most European countries, including France and the Netherlands.

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