Dipterists Digest

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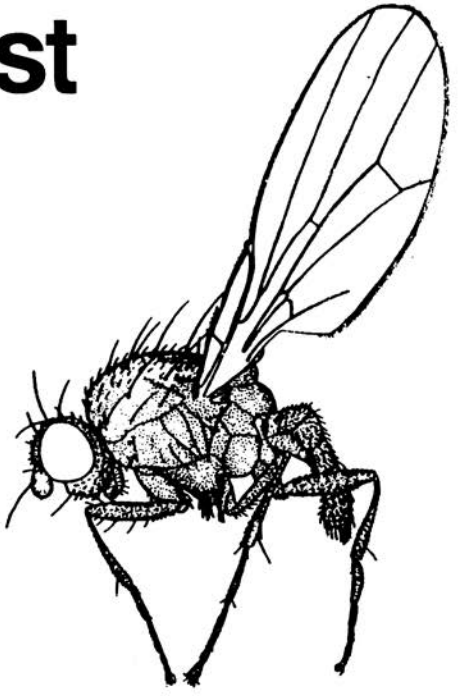

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Dipterists Digest

Dipterists Digest is the journal of the **Dipterists Forum**. It is intended for amateur, semi-professional and professional field dipterists with interests in British and NW European flies. All notes and papers submitted to **Dipterists Digest** are refereed. The scope of **Dipterists Digest** is:

- the behaviour, ecology and natural history of flies;
- new and improved techniques (e.g. collecting, rearing etc.);
- the conservation of flies;
- provisional and interim reports from the Diptera Recording Schemes, including maps;
- records and assessments of rare or scarce species including those new to regions, countries etc.;
- local faunal accounts and field meeting results, especially if accompanied with good ecological or natural history interpretation;
- descriptions of species new to science;
- notes on identification including deletions or amendments to standard key works and checklists.

Articles may be of any length up to 3,000 words and must not have been accepted for publication elsewhere. Items exceeding this length may be serialised or printed in full, depending on competition for space. Articles should be written in clear and concise English and should preferably be typed double spaced on one side of A4 paper. **After acceptance all contributions should, wherever possible, also be supplied on 3.5" computer disc** in ASCII, Word or Word Perfect (up to version 6 in each case) formats and accompanied by hard copy.

Style and format should follow articles published in the most recent issue. A short Summary (in the form of an Abstract) will be included at the beginning of each article in future issues and should be supplied with the article. References to journals should give the title of the journal in full. Scientific names should be underlined or, preferably, italicised. **If an article is to be supplied on disc, scientific names should always be italicised.** Authors of scientific names should be given in full (with parentheses if applicable) and nomenclature should follow the most recent check list, unless reflecting subsequent changes. Tables should be on separate sheets. Figures should be drawn in clear black ink, about 1.5 times their printed size and lettered clearly. Descriptions of new species should include a statement of the museum or institution in which type material is being deposited.

Authors will be provided with twenty reprints of papers of two or more pages in length.

Articles and notes for publication should be sent to the Editor at the address given above. Enquiries about subscriptions and information about the **Dipterists Forum** should be addressed to the Membership Secretary, Liz Howe, Ger-y-Parc, Marianglas, Tynygongl, Benllech, Gwynedd LL74 8NS, UK

Dipterists Digest 2000 7, 1-2

Chrysopilus erythrophthalmus Loew (Diptera, Rhagionidae) 102 years on

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Summary
The re-finding of the rarely recorded rhagionid *Chrysopilus erythrophthalmus* Loew on its "original" watercourse, after a 102 year gap, is reported.

Chrysopilus erythrophthalmus Loew was recorded as new to Britain from a site in North Yorkshire by Cole (1981) who searched, in conjunction with Tony Irwin, the collections at the British Museum where a specimen, collected by J.H. Wood, was found under *Chrysopilus cristatus* (Fabricius). The label read that it was taken on 1 July 1896 from Stoke Plantation, Cole (citing A.C. Pont and K.G.V. Smith) stating that it is widely believed that this site is the current Haugh Wood "which has one quite large stream running from the southern edge".

Dr J.H. Wood was a very competent dipterist who lived in the small village of Tarrington, just over the hill from the Pentaloe Brook, a small calcareous brook draining the limestone between Haugh and Stoke Woods. He only collected in Herefordshire and is remembered for his work on phorids and the discovery of the dipteran fauna of the River Monnow. He authored the Diptera account in the Victoria County History for Herefordshire and wrote many papers on micro-Lepidoptera and Diptera.

Wood was very familiar with *C. cristatus*, making no comment on its status in Herefordshire as he did with other common species (Wood 1908). I therefore consider it significant that he collected the specimen that was later recognised as *erythrophthalmus*, and I firmly believe that he considered it as something unusual and worthy of retention, rather than just another part of a series collection.

Wood regularly collected around his home in Tarrington and was quite clear about his locations. The Woolhope Club, of which he was a long-term member, held regular field trips around the county and often called into Haugh Wood, as on the field trip through the wood and along the Pentaloe Brook which was held on 28 May 1891 (Anon 1891). Importantly Wood's paper on "The Nepticulae of the Woolhope District" (1891) makes comment on going on "a hunting expedition on the Stoke Hills, or better, in the depths of Haugh Wood." He thus recognised a distinct geographical difference between these areas.

The ascription, therefore, of Stoke Plantation as being Haugh Wood is clearly in error. The current Ordnance Survey sheet retains the name of "The Plantation" as part of Stoke Wood on the Stoke Hills, a woodland block that has a headwater tributary of the Pentaloe Brook running through it. The small stream to the south of Haugh Wood seems unsuitable given what we currently know about *C. erythrophthalmus*. The water courses (as there are two flowing either side of the watershed on which Haugh Wood lies) are small, being on average only some 60cm wide and with fairly steep sides. They thus lack the extensive lateral wetted margins that are present on the Pentaloe Brook and Sheilhill Glen SSSI, Renfrewshire (D. Heaver pers. obs.). In addition, the wooded sections of these southern streams have, until very recently, been under very dense shading by conifers planted up to the stream edge, and in the reaches through permanent pasture the streams are heavily grazed and very open. The Pentaloe Brook, rather

than these streams 3km away, is thus the likely site of the original specimen and a tentative grid reference of SO 6039 is thus proposed for Wood's record.

In 1998, 102 years after Wood's record, I swept one female on 20 July on the lower reaches of the Pentaloe Brook (SO 584375, V.C. 36).

The fly was instantly recognisable as distinct from the common *Chrysopilus cristatus*, the differences being the silvery appearance of the abdomen, the very dark stigma and the overall impression of a broader-winged fly. The wing length of the specimen is 10.5 mm. The silvery scales are present on the lateral edges of tergites 1 to 4, with the strongest patch on tergite 1. The rest of the abdomen is bare.

The fly was swept from a very bare 15m length of lateral river gravels and earth river bank under the shade of hazel (*Corylus*) trees. The stream here is only about 2.5m in width, shaded and pebble bedded, though with a rich tufaceous silt from the many seepages and rivulets that enter it upstream of this point. It is bordered on one side by a forestry track and on the other by fenced improved pasture.

This agrees with observations made by Drake and Chandler (1997), who cited similar habitat preferences from a number of dipterists' observations. It may be that careful observation of such seemingly unpromising areas of river will yield some information on the behaviour of this still rarely recorded species.

Acknowledgements

Many thanks to Helen Stace for her useful comments on story order.

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The first fly of the millennium (Diptera, Muscidae) - 1 January 2000 was a mild and sunny day. Whilst out walking near my home (SU 616797) at about 11am, I saw my first fly of the year, a female of *Phaonia tuguriorum* (Scopoli) (Muscidae), sunning itself on a fence post. Could this be the first dipterological record of the millennium? - **ADRIAN C. PONT,** 38 Gatehampton Road, Goring-on-Thames RG8 0EP

Sapromyza amabilis Frey, 1930 (Diptera, Lauxaniidae), new to Norway

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Summary
Sapromyza amabilis Frey, 1930 (Lauxaniidae), previously recorded in Europe only from northern Finland, is added to the Norwegian Diptera list.

The lauxaniid fly *Sapromyza amabilis* Frey, 1930 is here recorded as new to Norway. One female was collected in a Malaise trap at Kongsvoll in Oppdal community, Southern Trøndelag province (EIS 79) between 22 and 28 July 1992 by John Skartveit. Kongsvoll is located north of 62°N in Middle Norway and is mapped as a station on the Oslo - Trondheim railway line. The locality is in a birch (*Betula verrucosa*) forest, with the ground flora including wood cranesbill (*Geranium silvaticum*) and a species of monkshood (*Aconitum septentrionale*). Two other males were collected in a Malaise trap in the southern parts of Mattisdalen (The Mattis valley) in Alta community, Finmark province (EIS 165) between 4 August and 26 September 1996 by Lars Ove Hansen and Helge Rinden, and one male and two females were collected in a Malaise trap at Svanhovd, Mellesmo in Sør-Varanger community, Finmark province (EIS 169) between 20 June and 4 August 1986 by Fred Midtgaard. The two localities in Finmark, the northernmost province in Norway, are both close to 70°N. The two localities are situated widely apart, the eastern one very close to the Russian border.

Sapromyza amabilis was described by Frey (1930). It is a yellow coloured species with a black first flagellomere and black palpi. It is a rare fly recorded by Frey (1930) from several localities mostly in northern Finland, and it has not been recorded from other localities in Europe. Shewell (1971) recorded it from Mongolia and noted also that it may occur in North America. Remm and Elberg (1980) also recorded it from Mongolia and provided an illustration of the male and female genitalia. Papp (1984) also referred to East Siberia.

Acknowledgements

I thank Dr. Tor Tønsberg, the Botanical Museum, University of Bergen for information on English plant names.

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***Chrysotoxum cautum* (Harris) (Diptera, Syrphidae) in north Lancashire (V.C. 69) -** In the *Bulletin of the Dipterists Forum* (1999. **48,** 11) there appeared sundry correspondence and comments, initiated by a letter of mine to Darwyn Sumner regarding specimens of *Chrysotoxum cautum* (Harris) taken by the late J. Davis Ward of Grange-over-Sands. My letter was partly prompted by the comment by Alan Stubbs, expressing doubt on the occurrence of this hoverfly in Lancashire (A.E. Stubbs. 1998. *British Hoverflies. Second Supplement*. p.18). I believe it will be of interest to publish J.D. Ward's notes on the records, taken verbatim from his diary. I have three volumes of his diaries which are full of very interesting observations on entomological matters covering a period from September 1916 to the time of his untimely death, aged 59, in February 1935.

Entry for June 8th 1922: "This morning I walked in excessively hot weather from Arnside to Silverdale, along footpath by fields near Railway. Along the edge of wood bordering the fields belonging to Arnside Tower Farm before coming to cart road running to the tower, I saw a striking wasp-like insect. Thinking it might be *S. borealis* [i.e. *Sericomyia silentis* (Harris)] I went to it and found it was (as I thought, carelessly) *borealis*. I went to it and by waiting an hour or more, took four and saw one or two more. I was exceedingly impressed by the striking resemblance of this fly on the wing to a wasp. It was even more brilliantly yellow, as if emphasising its wasp nature. When settled my eye at once detected its nature, but I doubt if I would have done so until recent years when I have studied flies. But almost as striking as its mimicry in colour was its mimetic flight. It never came into open field but wandered in and about low bushes in the margin of field, so that I always had to follow it about a short time before I could strike at it free from bramble or other thorns. It acted in fact exactly as a wasp does when perhaps in search of grubs, or as a queen does when in search of a nesting place.

It was only in the evening when I started out to name that I began to realise that I had got something new, viz. *Chrysotoxum cautum* and not *borealis*. I knew all along that I had a relation of *arcuatum* [i.e. *Chrysotoxum arcuatum* (Linnaeus) in the sense of the established usage of the name in British literature], which is not new to me, as it is so like it, but I got misled by the parallelism which is so striking between insects of different genera in Syrphidae, when they begin to mimic bees and wasps. I have just been noticing how *Xylota segnis*, which is very common just now, is rather like an ichneumon. [*C.*] *cautum* very frequently settles on leaves of trees or grass and it works its abdomen at rest just as a wasp does, in the manner that is considered to be warning of a sting."

Entry for July 27 1922: "Fine day, called on Mr Littlewood at Arnside spending an hour. Afterwards walked to "T.B." [I think "T.B." refers to Trowbarrow Quarry, nearby]. Stopped an hour in first Arnside Tower Farm field to look for flies along edge of wood. Particularly wanted to get *Chrysotoxum cautum* again, as those got on Whit Thursday have badly lost colour - I suspect it is due to killing them with benzine. Very soon I got one, and in the hour got a second."

The notes above by J.D. Ward are of considerable intrinsic interest and set us all an example of the sort of details we should note and shows J.D. Ward, who I knew slightly as a result of a few visits to his home when I was a schoolboy, above all as a most careful and observant naturalist - **Dr NEVILLE L. BIRKETT,** Beardwood, Carter Road, Grange-over-Sands, Cumbria LA11 7AG

Dipterists Digest 2000 **7**, 5-7

A new species of *Megaselia* from Cambridgeshire (Diptera, Phoridae)

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*27 Mill Road, Lode, Cambridge CB5 9EN

Summary
Megaselia wickenensis Disney sp. n. (Phoridae) is described from a male reared from rot hole detritus in a willow in Cambridgeshire.

Introduction

In early March 1993 IP collected rot hole detritus from a bay willow tree (*Salix pentandra*) along the Spinney Drove at Wicken Fen, Cambridgeshire (V.C. 26). From this material were reared a number of Limoniidae, *Neolimonia dumetorum* (Meigen) and *Rhipidia uniseriata* Schiner, a single female *Euthyneura halidayi* Colin (Hybotidae) and also a single male of a species of *Megaselia* Rondani (Phoridae), which emerged on 5 August 1993. As this specimen did not run out in the key to the British species (Disney 1989) it was passed to RHLD, who found it to be a new species, which is described below.

Megaselia wickenensis Disney **sp. n.** (Fig. 1)

Male. Head: Frons brown, wider than long, with dense microtrichia (i.e. dull), and 82-86 hairs. Lower supra-antennal bristles (sa) only a little shorter and weaker than upper sa, which are distinctly further apart than pre-ocellars. Antials a little lower on frons than upper sa and about equidistant from them and anterolaterals, which are clearly higher on frons than upper sa. Pre-ocellars closer together than either is from a mediolateral, all four bristles being in an almost straight transverse row. Four hairs and two bristles on ocellar triangle. Three short bristles on cheek and two longer, more robust, bristles on jowl. Third antennal segment brown with brown arista. The basal segment of latter about twice as long as broad, the second about 2.5 x as long as broad and swollen base of segment 3 just over twice as long as its basal width. Length of hairs on distal part of segment 3 subequal to this basal width. Third antennal segment lacks SPS vesicles (subcuticular pit sensilla). Palp light brown, shading to yellow at tip and along lower margin. With eight bristles, increasing in length towards tip, and about a dozen hairs. Greatest breadth of pale brownish yellow labrum only about 0.7 x that of third antennal segment. Labella with distally converging brown bands above and densely packed short pale spinules below.

Thorax: brown, being darkest on top of scutum and on scutellum. Each side of scutum with a humeral, two notopleurals, an intra-alar, a postalar and a prescutellar dorsocentral bristle. Scutellum with an anterior pair of short hairs (shorter and weaker than those at rear of scutum) and a posterior pair of bristles. Mesopleuron bare. No notopleural cleft.

Abdomen with brown tergites gradually narrowing from T2 to T6, the latter being longer than the rest and with the hairs at its rear margin clearly differentiated from the rest (Fig. 1). Venter greyish brown with fine hairs below on segments 3-6, those at the rear of 6 being the longest. The brown hypopygium as Fig. 1. Rear margin of hypandrium with a pair of pale, subequal, hairy lobes.

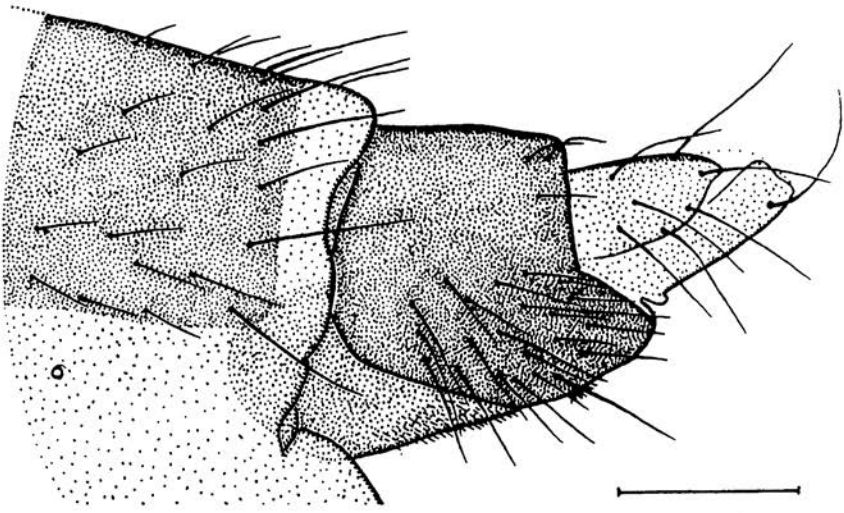

Fig. 1. ***Megaselia wickenensis*** **sp. n., left face of male hypopygium. Scale bar 0.1mm.**

Legs brown, the front coxae being more yellowish. Ratios of lengths of fore-tarsal segments about 3.0:1.5:1.4:1.1:1, the first four having a posterodorsal hair palisade. Near-dorsal, longitudinal, hair palisade of mid tibia extends not quite three quarters of length. Hind femur with 5-6 hairs below basal half clearly longer than those of anteroventral row in outer half. Hind tibia with about a dozen differentiated posterodorsal hairs, with all but the uppermost 2-4 being almost spine like. The apical combs of posterior face with all spines simple.

Wing: 1.7-1.8 mm long. Costal index 0.43-0.44. Costal ratios 3.31:1.36:1.0. Costal cilia 0.11-0.12 mm long. A hair at base of vein 3 and three bristle-like hairs on axillary ridge, the shortest being subequal to and the longest longer than the longest costal cilia. Veins greyish brown, but basal half of 7 pale. Vein Sc fades away before reaching R_1. Obscure origin of vein 4 beyond fork of vein 3. Membrane lightly tinged grey. Haltere brown.

Type material: **Holotype** male. Cambridgeshire, Wicken Fen, Spinney Drove, TL 559708, reared from rot hole material collected March 1993, adult emerged 5 August 1993, sample 215, I. Perry (deposited in University Museum of Zoology, Cambridge - 18-63).

Affinities

In the key to British species (Disney 1989) *M. wickenensis* will run to couplet 285 lead 2, where neither lead fits. Two European species, not yet recorded from Britain, that also run to this couplet are *M. praeacuta* (Schmitz) and *M. tamilnaduensis* Disney. The recognition of the former has recently been clarified (Disney and Campadelli 1997, Cakar and Disney 1991) and while the latter was described from India (Mohan *et al.* 1996) it has recently been reported from Poland (Disney and Durska 1999). Both these species are immediately distinguished by their abbreviated hypandrial lobes, relatively short (scarcely differentiated) hairs at the rear of abdominal tergite 6, and their shorter costal cilia (<0.1 mm long on section 3).

Acknowledgements

We are grateful to A.E. Stubbs for the identification of the craneflies. IP's collecting at Wicken Fen was with the kind permission of the National Trust. RHLD's studies of Phoridae are funded by the Isaac Newton Trust (Trinity College, Cambridge).

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***Volucella inanis* (Linnaeus) (Diptera, Syrphidae) new to Norfolk** - On the morning of 9 August 1999, following two days of nearly incessant rain, the sun appeared and hoverflies were quick to appear on flowers of marjoram (*Origanum vulgare*) in my Norwich garden (TG 215090). Among a number of commonly occurring species I was surprised to see a single female of *Volucella inanis* (Linnaeus). This species has shown signs of spreading northwards in recent years, perhaps in response to climatic warming and this record further extends its range north-eastwards (Roger Morris, *pers. comm.*) - **STUART PASTON,** 25 Connaught Road, Norwich NR2 3BP

***Volucella inanis* (Linnaeus) (Diptera, Syrphidae) new to Cambridgeshire** - On the afternoon of 29 August 1999, while emptying water traps in compartment 5 at Chippenham Fen NNR (TL 647694), I was surprised to see what appeared to be a female *Volucella inanis* (Linnaeus) feeding on a flower of hemp agrimony (*Eupatorium cannabinum*) under a buckthorn (*Rhamnus cathartica*) bush. Not having a tube or net to hand, I captured the individual carefully by the wings betwixt thumb and forefinger, before obtaining a tube for more secure retention from my field bag a few metres away. Consulting A.E. Stubbs and S.J. Falk (1983. *British Hoverflies*. British Entomological and Natural History Society, London) that evening confirmed the identification of an unexpected and fortuitous addition to the Chippenham Fen list. Although there are indications that this hoverfly may be extending its range northwards in Britain, including the record from Norfolk by Stuart Paston (see p. 7 above), this is apparently the first record for the species from Cambridgeshire. I thank Ivan Perry (Cambridgeshire hoverfly recorder) and Stuart Ball (National Hoverfly Recording Scheme organiser) for kindly informing me that they know of no previous records of *V. inanis* from the county - **I.F.G. McLEAN,** 109 Miller Way, Brampton, Huntingdon, Cambridgeshire PE18 8TZ

Recent records of *Orchisia costata* (Diptera, Muscidae) from Dorset and Wiltshire - Single females of the rather striking muscid *Orchisia costata* (Meigen) were recorded from two localities in Dorset (V.C. 9) by E.A. Howe (EAH) and M.A. Howe (MAH) during the Dipterists Forum summer field meeting in 1998. Both were swept from small stands of reed (*Phragmites australis*) growing on eroding coastal soft clay cliffs at Worbarrow Bay (SY 6880) on 28 June 1998 and East Ebb Point (SY 428913) on 2 July 1998.

A female was also taken at Longleat Park and Woods SSSI in South Wiltshire (V.C. 8; ST 789429) on 2 September 1998 by P. Skidmore during a general entomological survey on behalf of English Nature. It was swept from a damp herb-rich ride in broad-leaved woodland on gravelly calcareous clay, where the rather dense sward included rank grasses, hemp agrimony *Eupatorium cannabinum*, marsh thistle *Cirsium palustre*, ground-ivy *Glechoma hederacea* and bramble *Rubus fruticosus*. This specimen has been deposited in the collections at the National Museum of Wales, Cardiff.

This muscid, presently considered vulnerable (RDB2), was previously known from only six localities in the UK, all on the south coast of England and Wales, and was last recorded in 1972 from Oxwich NNR on the Gower Peninsula (Glamorgan). All records from 1957 to 1972 are from either coastal dunes in Devon, Dorset (where it was recorded from Studland in 1960), Kent and Glamorgan or dry, sandy heath (Arne, Dorset in 1960) such that those reported here, and in particular the inland locality, indicate markedly different habitats.

The species is common in southern Europe and throughout subtropical and tropical areas of the Old World where it is more catholic in its choice of habitats.

We thank Adrian Pont for supplying and allowing us to quote information on its UK and global distribution, and EAH and MAH thank Andy Godfrey for identifying the specimen from Worbarrow Bay - **M.A. HOWE** and **E.A. HOWE,** Countryside Council for Wales, Plas Penrhos, Ffordd Penrhos, Bangor, Gwynedd, LL57 2LQ and **P. SKIDMORE,** Woodlands, Conway Road, Penlan, Swansea, West Glamorgan, SA5 7BD

Dipterists Digest 2000 7, 9-14

James Hardy and some new synonyms for British Flies (Diptera: Cecidomyiidae, Agromyzidae and Anthomyiidae)

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Summary
Evaluation of some overlooked publications of James Hardy have resulted in a number of new synonyms in the following families:
CECIDOMYIIDAE: *Cecidomyia capreae* Hardy, 1854 **syn. n.** (= *Rabdophaga rosaria* (Loew, 1850) and its senior synonym *strobilina* (Bremi, 1847), which is used here), *Cecidomyia fraxinicola* Hardy, 1854 **syn. n.** (= *Dasineura fraxini* (Bremi, 1847)), *Cecidomyia quercus* Loew, 1850 **syn. n.** (= *Macrodiplosis dryobia* (F. Löw, 1877), **nomen protectum**), *Cecidomyia roboris* Hardy, 1854 **syn. n.** (= *Macrodiplosis volvens* Kieffer, 1895, **nomen protectum**), *Cecidomyia rosae* Bremi, 1847 **syn. n.** (= *Wachtliella rosarum* (Hardy, 1850), **nomen protectum**). *Cecidomyia rhodophila* Hardy, 1850 **(stat. rev.)** is reinstated as the senior synonym of *Macrolabis luceti* Kieffer, 1899.
AGROMYZIDAE: *Calyptomyza* Hardy, 1850 **syn. n.** (= *Agromyza* Fallén, 1810), *Calyptomyza atra* Hardy, 1850 **syn. n.** but preocc. (= *Agromyza lathyri* Hendel, 1923), *Phytomyza brassicae* Hardy, 1853 **syn. n.** (= *Phytomyza rufipes* Meigen, 1830), *Agromyza galeopsios* Hardy, 1853 **syn. n.** (= *Liriomyza strigata* (Meigen, 1830)), *Agromyza idaeiana* Hardy, 1853 **syn. n.** (= senior synonym of *Agromyza potentillae* (Kaltenbach, 1864), etc.).
ANTHOMYIIDAE: *Anthomyia alliorum* Hardy, 1853 **syn. n.** (= *Delia antiqua* (Meigen, 1826)), *Anthomyia rumicis* Hardy, 1854 **syn. n.** (= *Pegomya bicolor* (Wiedemann, 1817)).

Introduction

James Hardy (1815-1898) of Penmanshiel, Cockburnspath, East Lothian, Scotland, was a serious student of phytophagous insects. While researching his scientific achievements a number of his entomological publications came to light which appear to have been overlooked, both by his contemporaries and subsequent entomologists. Several species of fly were described by John Curtis (1791-1862) and John Westwood (1805-1893) in "The Gardener's Chronicle" and got immediate recognition; however Hardy's articles in "The Scottish Gardener, a magazine of Horticulture and Floriculture" escaped unnoticed. The following list attempts to put the species described and discussed by James Hardy into context. Many sources have been used to derive the synonymies, but most importantly Papp (1984), Skuhravá (1986), Chandler (1998) and von Tschirnhaus (1999). For clarity all junior synonyms are indented and italicised and for emphasis all taxa described by Hardy are shown in bold type. No type specimens have yet been located. The type localities are rarely indicated but the term "in this vicinity" is taken to mean the immediate environs of Penmanshiel, namely the Cockburnspath area of East Lothian. The Roman numerals preceding dates of Hardy's publications in the Species List and following them in the References relate to the month of publication.

Key to Type localities

\+ none given (Scotland)
++ "lower part of Berwickshire", Scotland
* Cockburnspath area of East Lothian, Scotland
** "North and South of Scotland"

Species List

CECIDOMYIIDAE

CONTARINIA Rondani, 1860

helianthemi (Hardy, ix.1850 - *Cecidomyia*)*
DASINEURA Rondani, 1840
fraxini (Bremi, 1847 - *Cecidomyia*)
botularia authors, nec Winnertz, 1853
fraxinicola (Hardy, v.1854 - *Cecidomyia*) + **syn. n.** Note 1
fraxini (Kieffer, 1897 - *Cecidomyia*)
ITEOMYIA Kieffer, 1913
capreae (Winnertz, 1853 - *Cecidomyia* (*Hormomyza*))
salicisfolii (Hardy, iii.1854 - *Cecidomyia*) +
MACRODIPLOSIS Kieffer, 1895
dryobia (F. Löw, 1877 - *Diplosis*) **Nomen protectum**
quercus (Loew, 1850 - *Cecidomyia*) **syn. n.**
synonymised by Hardy (iv.1854) **Nomen oblitum** Note 2
volvens Kieffer, 1895 **Nomen protectum**
roboris (Hardy, iv.1854 - *Cecidomyia*) + **syn. n. Nomen oblitum** Note 3
MACROLABIS Kieffer, 1892
rhodophila (Hardy, ix.1850 - *Cecidomyia*) + **stat. rev.** Note 4
luceti Kieffer, 1899
MYCODIPLOSIS Rübsaamen, 1895
oidii (Hardy, vi.1854 - *Cecidomyia*) +
RABDOPHAGA Westwood, 1847
cinerearum (Hardy, ix.1850 - *Cecidomyia*) +
salicis (Schrank, 1803 - *Tipula*)
salicina (Bouché, 1834 - *Cecidomyia*)
gallarumsalicis (Hardy, ix.1850 - *Cecidomyia*) +
synonymised by Hardy (i.1854)
argyrosticta (Macquart, 1854 - *Cecidomyia*)
noduli (Rübsaamen, 1895 - *Dichelomyia*)
saliyonai Shinji, 1938
strobilina (Bremi, 1847 - *Cecidomyia*)
rosaria (Loew, 1850 - *Cecidomyia*)
salicina authors
capreae (Hardy, ii.1854 - *Cecidomyia*) + **syn. n.,** preocc. by *capreae* Winnertz, 1853 (now *Iteomyia*) Note 5
terminalis (Loew, 1850 - *Cecidomyia*)
saligna (Hardy, ix.1850 - *Cecidomyia*) +
WACHTLIELLA Rübsaamen, 1915.
rosarum (Hardy, ix.1850 - *Cecidomyia*) +
synonymised by Hardy (vi.1854) **Nomen protectum**
rosae (Bremi, 1847 - *Cecidomyia*) **Nomen oblitum** Note 6

AGROMYZIDAE
AGROMYZA Fallén, 1810
CALYPTOMYZA Hardy, viii.1850 **syn. n.** Note 7
idaeiana Hardy, x.1853 ** Note 8
potentillae (Kaltenbach, 1864 - *Phytomyza*) **syn. n.**
spiraeae Kaltenbach, 1867 **syn. n.**
sanguisorbae Hendel, 1931 **syn. n.**

reptans leucomaculata Vimmer, 1931 **syn. n.**
stackelbergi (Frey, 1946 - *Dizygomyza*) **syn. n.**
erici Rydén, 1952 **syn. n.**
lathyri Hendel, 1923
atra (Hardy, viii.1850 - *Calyptomyza*) ++ **syn. n.**, preocc. by *atra* Meigen, 1830 (now *Cerodontha* (*Poemyza*)) Note 9
CHROMATOMYIA Hardy, xii.1849
nigra (Meigen, 1830 - *Phytomyza*)
cinereofrons Hardy, xii.1849 +
syngenesiae Hardy, xii.1849 +
atricornis [partim], authors
chrysanthemi (Kowarz in Lintner, 1891)
LIRIOMYZA Mik, 1894
strigata (Meigen, 1830 - *Agromyza*)
pumila (Meigen, 1830 - *Agromyza*)
violae (Curtis, 1844 - *Agromyza*)
galeopsios (Hardy, xii.1853 - *Agromyza*) + **syn. n.** Note 10
PHYTOMYZA Fallén, 1810
aquilegiae Hardy, xii.1849 +
rufipes Meigen, 1830
sulphuripes Meigen, 1830
ruficornis Zetterstedt, 1848
brassicae Hardy, iv.1853 + **syn. n.** Note 11
femoralis Brischke, 1871
bistrigata Strobl, 1906
ANTHOMYIIDAE
BOTANOPHILA Lioy, 1864
jacobaeae (Hardy, 1872a – *Anthomyia*)
sonchi (Hardy, 1872b – *Anthomyia*)
lineata (Stein, 1914 – *Chortophila*)
DELIA Robineau-Desvoidy, 1830
antiqua (Meigen, 1826 - *Anthomyia*)
ceparum (Meigen, 1830 - *Anthomyia*)
ceparum (Bouché, 1834 - *Anthomyia*)
liturariae (Ratzeburg, 1844 - *Musca* (*Anthomyia*))
alliorum (Hardy, i.1853 - *Anthomyia*) + **syn. n.** Note 12
cepetorum (Meade, 1883 - *Phorbia*)
PEGOMYA Robineau-Desvoidy, 1830.
bicolor (Wiedemann, 1817 - *Anthomyia*)
mitis (Meigen, 1826 - *Anthomyia*)
rumicis (Hardy, vii.1854 - *Anthomyia*) + **syn. n.** Note 13

Notes

1. This species is described by Hardy from the gall and larva only. The description clearly refers to unilarval galls of the frequently gregarious *Dasineura fraxini* (Bremi).
2. Hardy (1854) appears to be the only person to have adopted the synonymy of *Cecidomyia quercus* (Loew, 1850) with *Diplosis dryobia* (F. Löw, 1877). As *quercus* Loew, 1850 has not been used as a valid name after 1899 and many authors have recently used *dryobia* F. Löw, 1877 as the presumed valid name, the conditions of both Article 23.9.1.1 and

23.9.1.2 (ICZN 1999) are met and the reversal of precedence must be invoked (Article 23.9; ICZN 1999). The younger name should thus take precedence as the valid name.

3. Hardy (1854) describes the gall of *Cecidomyia roboris* on oak (*Quercus*) as leaf with "margins neatly rolled backwards, and firmly fixed in a minute tube." This is clearly the same gall as that of *Macrodiplosis volvens* Kieffer, 1895. The name *roboris* Hardy, 1854, has not been used as a valid name after 1899 while *volvens* Kieffer, 1895 has been used as the presumed valid name by many authors recently. Thus under Article 23.9 Reversal of Precedence (ICZN 1999), both Articles 23.9.1.1 and 23.9.1.2 are met, so the younger name (viz. *volvens* Kieffer, 1895) should be preserved as the valid name.
4. Skuhravá (1986) relegated *Cecidomyia rhodophila* Hardy, 1850 to a *nomen dubium*. This practice was also followed by Chandler (1998). This action is unfounded as Hardy (1850) clearly refers to the primary gall-maker as *Cecidomyia rosarum* (i.e. "depositing eggs into the unopened leaflets" and whose orange larvae are the "most numerous"), and *rhodophila* as its smaller inquiline. The combination of the midge description of *rhodophila* and the inquiline larval life-style confirms its synonymy with the more commonly quoted name, *Macrolabis luceti* Kieffer, 1899.
5. Hardy (1854) gave the name *capreae* to the rosette gall on *Salix caprea*. Hardy correctly suspected that the species may be identical to *Cecidomyia rosaria* Loew, 1850 (= *Cecidomyia strobilina* Bremi, 1847, which was listed in synonymy by Skuhravá (1986), but is used here as it is the senior synonym).
6. Hardy (1854) synonymised his own species *rosarum* Hardy 1850 with *rosae* Bremi, 1847, but the synonymy was never adopted by others. Although included in at least two lists (this is not usage according to Article 23.9.6), *rosae* Bremi, 1847 has not been used as a valid name after 1899 while *rosarum* Hardy, 1850 has been used by many authors recently as the presumed valid name. In the interests of stability, under Article 23.9 on reversal of precedence (ICZN 1999), the younger name (*rosarum* Hardy) is retained as the valid name.
7. The type species of *Calyptomyza* is *atra* Hardy, 1850 by monotypy. However, this species is a synonym of *Agromyza lathyri* Hendel 1923. *Agromyza* Fallén has priority.
8. The synonymy is based primarily on Hardy's clear description of the larval mine (viz. "... a twisting channel, which at length loses itself in a shapeless pool.") in the leaves of raspberry. His description of the adult fly is not contrary to this conclusion. The law of priority still holds for the name *idaeiana* for under rule 23.9 on the reversal of precedence (ICZN 1999) both Articles 23.9.1.1 and 23.9.1.2 must be satisfied before priority to the older name is waived. Although the senior synonym (*idaeiana*) appears not to have been used since 1899 (Article 23.9.1.1), the usage of the junior synonym (*potentillae*) has been insufficient to meet the criteria of Article 23.9.1.2. My searches indicate that only four authors (Spencer 1976; von Tschirnhaus 1981; Spencer and Steyskal 1986; Robbins 1991) have used *potentillae* Kaltenbach, 1867 as the valid name since Spencer reinstated it in 1976. Under Article 23.9.6. inclusion of the name in a list is not considered usage.
9. The description of the larval mine in the leaves of Garden and Field Pea as "large irregular blotches around the tip and along one side of the leaves, from which the green pith is eaten away", is the primary basis for the synonymy but the larval description and that of the adult fly support this conclusion.
10. Hardy described the larval mine in the leaves of hemp nettle (*Galeopsis tetrahit*) as "its excavations are carried along the midrib, and occasionally branch off to the lateral basal nervures ..... at later periods it deserts the leaf for the stem, which it undermines beneath the bark for a considerable way downwards." This leaf-mine is also appropriate to *Liriomyza strigata* as also is the description of the larva and imago. Hardy was aware

that his species was close to *strigata* but found the original description too imprecise to be sure.

11. The habit of *Phytomyza brassicae* of boring down the petiole of *Brassica* species immediately identified it with *Phytomyza rufipes* Meigen, 1830.
12. The description of the larval feeding, the appellation "The Onion Fly" and its synonym with *Anthomyia ceparum* Bouché make the identity of this species as *Delia antiqua* unquestionable.
13. The synonymy of *Anthomyia rumicis* Hardy, 1854 is more problematical. There are four *Rumex*-mining anthomyiids in the area where Hardy resided, namely *Pegomya bicolor* (Wiedemann, 1817), *P. haemorrhoum* (Zetterstedt, 1838), *P. solennis* (Meigen, 1826) and *P. versicolor* (Meigen, 1826). *A. rumicis* Hardy has "thorax light grey, scarcely bluish grey" and abdomen "shining, narrow, cylindrical with the tip blunt and rounded, ferruginous with a white reflection". This description eliminates *P. haemorrhoum*, which is a black species and *P. versicolor* which has a dark grey thorax and a dark brownish abdomen, from further consideration. Abdominal shape separates *P. solennis* from *P. bicolor*; in the former the abdomen is distinctly flattened anteriorly but cylindrical in *P. bicolor*. Thus as suggested by Hardy, his *Anthomyia rumicis* is synonymous with *Pegomya bicolor* (Wiedemann, 1817).

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***Phasia hemiptera* (Fabricius) (Diptera, Tachinidae) in 1999** - 1999 seems to have been a good year for *Phasia* (= *Alophora*) *hemiptera* (Fabricius); on 16 May 1999 we found a specimen on a flower at Ruislip Lido, Ruislip Woods NNR, Middlesex (TQ 089892). On 14 June 1999 we took a male specimen at Valley Ride, Roudsea Wood NNR, Cumbria (SD 332825) during the Dipterists Forum summer field meeting.

The previous records we have for this species are 1 August 1982 at the Warburg BBONT Reserve, Nettlebed, Oxfordshire, (SU 7288) and 8 July 1983 at Valency Valley Woods, E. Cornwall (SX 105912) - **KEN** and **RITA MERRIFIELD,** 8 Hawthorne Avenue, Eastcote, Middlesex HA4 8SS

Dipterists Digest 2000 7, 15-18

Diptera (Mycetophilidae, Empididae, Micropezidae, Drosophilidae, Sarcophagidae, Muscidae, Calliphoridae and Tachinidae) new to Ireland

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Summary
Twenty-eight species of Diptera are newly recorded for Ireland in the families listed above; this is one of a series of papers updating the Irish Diptera list preliminary to the preparation of a revised checklist of Irish Diptera. *Sciophila hirta* Meigen (Mycetophilidae) is confirmed as an Irish species. *Coenosia dubiosa* Hennig (Muscidae) is deleted from the Irish Diptera list.

Introduction

At present, the authors are involved in compiling a revised checklist of the Irish Diptera. As part of this research, the senior author has been identifying undetermined specimens collected during recent years and a number of species new to Ireland have been discovered. Some of these are reported here and the opportunity is also taken to include other species in the same families of which Irish records had previously been known but as yet unpublished.

In the recent British checklist (Chandler 1998) the symbol + indicated occurrence in Ireland against all species of which Irish records had been published, but it was stated that there are also previously known Irish records awaiting publication in many families of Diptera. It is intended to publish these additional species in a series of papers so that the planned Irish checklist can be as complete as practicable. Families and species here follow the order of the checklist.

It is also necessary to delete one species from the Irish list. *Coenosia dubiosa* Hennig (Muscidae) was recorded by Nash and Chandler (1978), but re-examination of the specimens concerned have shown them to be males of *C. verralli* Collin, of which females were recorded by these authors from the same sites and dates.

As *Sciophila hirta* Meigen (Mycetophilidae) has been found to comprise two species in Britain the material in the National Museum, Dublin, recorded by Chandler (1976) was re-examined. The male from Seapoint, 14.viii.1937 (B.P. Beirne) was confirmed to be *S. hirta*. A female from Haliday's collection cannot be determined to species.

Data for the species new to Ireland are listed below; the abbreviations of collectors' names are those of the authors and the following: AWS = A.W. Stelfox, EGH = E.G. Hancock, JNH = J.N. Halbert, MAOC = M.A. O'Connor, MB = M. Boston, PW = P. Withers, SVG = S.V. Green.

Mycetophilidae

The additions here bring the Irish list of Mycetophilidae to 236 and of fungus gnats to 269.

Leia bimaculata (Meigen)
This was queried as Irish in Chandler (1998) but can now be confirmed.
TYRONE: Moy (H8356), male, 21-28.x.1984, Malaise trap, MB and RN.

Allodia (*Brachycampta*) *silvatica* (Landrock)
DOWN: Crawfordsburn Country Park (J4481), male, 6.v.1988, PJC.

Allodiopsis domestica (Meigen)
TYRONE: Moy (H8356), female, 21-28.x.1984, Malaise trap, MB and RN.

Anatella longisetosa Dziedzicki
CAVAN: Virginia Woods (N5987), male, 20.iii.1988, JPOC and MAOC.

Brevicornu glandis Laštovka and Matile
This was one of the additions to the British list in Chandler (1998) based on records from 20 sites in England and Wales during the wetland surveys by the former Nature Conservancy Council.
CLARE: Burren grikes, Formoyle (M176050), 17-25.ix.1991, SVG; Burren grikes, Caherconnell (M228022), 17-25.ix.1991, SVG.

Exechiopsis dumitrescae (Burghele-Balacesco)
KERRY: Killarney, Ross Island (V9588), male, 11.vii.1990, PW; OFFALY: Charleville Wood (N3222), male, 9.ix.1999, PJC.

Pseudexechia parallela (Edwards)
This was known as British only from the female holotype from Suffolk until it was found frequently from 1987 to 1989 in wetland sites, surveyed by the former Nature Conservancy Council, in Wales and East Anglia.
KERRY: Ballymacquin (Q770260), male, 10.ix.1983, EGH.

Rymosia affinis Winnertz
CLARE: Burren grikes, north of Leana (R275930), 1-8.vi.1991, SVG; Burren grikes, Formoyle (M176050), females, 17-25.ix.1991, SVG.

Mycetophila perpallida Chandler
This species was recently recognised (Chandler 1993) as distinct from *M. fungorum* (De Geer); both species are common in Britain and they are only separable on male genitalia. Most material recorded as *fungorum* by Chandler (1976) has not been re-examined but *M. fungorum* can be confirmed from several sites in WICKLOW and Muckross in KERRY, while specimens from WICKLOW, Glendalough and Glen of the Downs and KERRY, Drominahassig were *perpallida*. Later records of *perpallida* are from WICKLOW, Avondale, 4.x.1986, PJC and Devil's Glen (T2399), 17.iii.1988 and 7.viii.1990, JPOC and MAOC; FERMANAGH, Crom Castle Estate, Inisherk Island (H352244), 4.ix-5.x.1992, A.P. Foster and I. Herbert.

Mycetophila signata Meigen
CORK: Ballyvourney Wood (W1977), male, 10.vii.1990, by River Sullane, PW.

Mycetophila strigata Staeger
TYRONE: Moy (H8356), male, 10-16.vi.1985, Malaise trap, MB and RN.

Mycetophila uliginosa Chandler
This is now known to be widespread although scarce at wet woodland sites in southern England.
TYRONE: Moy (H8356), male, 26.xi-2.xii.1984, Malaise trap, MB and RN.

Phronia obtusa Winnertz
WICKLOW: Enniskerry (O2216), male, 10.xi.1986, PJC.

Azana anomala (Staeger)
This is a scarce species in Britain, with scattered records from southern England and the Spey valley in Scotland; most sites, of which six are post 1960, are wooded but one record is of a female from Cratham dunes, Redcar, North Yorkshire, 20.vi.1991 (J. Coulson). The biology is unknown and the significance of these coastal records is uncertain.
DUBLIN: Bull Island (O2438), female, 25.iv.1982, JPOC and MAOC.

Sciophila fenestella Curtis
TYRONE: Moy (H8356), male, 22.v-2.vi.1985, Malaise trap, MB and RN.

Empididae
Hilara apta Collin
WESTMEATH: Coosan Lough (N05545), male and female, 2.vii.1980, swept from lakeside vegetation, JPOC.

Chelifera stigmatica (Schiner)
CLARE: The Burren, near Formoyle (M1606), green road, male, 29.v.1992, JPOC.

Micropezidae
Only the two most widespread of the nine British species of this family have previously been recorded from Ireland. A third can be added but one or two others should be expected to occur.
Neria commutata (Czerny)
DUBLIN: Mote Park, 1897, JNH, National Museum Dublin; WESTMEATH: Mullingar, 1901, JNH, National Museum, Dublin; WATERFORD: Ballin Lough (S4403), male and female, 18.vi.1990, swept from lakeside vegetation, JPOC and MAOC; MONAGHAN: Lough Muckno, male and female, 15.vii.1971, PJC.

Drosophilidae
Chymomyza fuscimana (Zetterstedt)
This is the first Irish record of this genus of three British species, which develop under bark. Adults of *fuscimana* are found on recently cut or exposed wood surfaces on which their courtship displays take place.
OFFALY: Charleville Wood (N3222), male, 9.ix.1999, PJC.

Muscidae
Helina ciliatocosta (Zetterstedt)
DOWN: Rowallane (J4057), male, 12.viii.1987, walled ornamental garden, RN

Calliphoridae
Melinda gentilis Robineau-Desvoidy
WICKLOW: Arklow district, 29.iv.1926, AWS, National Museum, Dublin.

Pollenia griseotomentosa (Jacentkowský)
DUBLIN: Ballybetagh Wood, in rotten log, male, 22.ii.1925, AWS, National Museum, Dublin; OFFALY: Charleville Wood (N3222), male, 27.v.1984, PJC and male, 28.iv.1987, JPOC; ROSCOMMON: shore of Lough Ree, male, 28.ix.1977, PJC.

Pollenia viatica Robineau-Desvoidy
WATERFORD: Tramore, 27.vii-1.viii.1918, probably R. Scharff, National Museum, Dublin.

Sarcophagidae
Macronychia polyodon (Meigen)
OFFALY: Golden Grove, a puparium found by a burrow in marl 16.iii.1924, fly emerged vii.1924, AWS, National Museum, Dublin.

Tachinidae
The Tachinidae are poorly represented in Ireland with only a quarter of the British species recorded. Only two of the eleven British species of *Siphona* were hitherto known to occur.
Loewia foeda (Meigen)
DOWN: Crawfordsburn Country Park (J4481), female, 6.viii.1996, deciduous wood bordering sea lough, RN.

Compsilura concinnata (Meigen)
DOWN: Crawfordsburn Country Park (J4481), female, 1.viii.1996, deciduous wood bordering sea lough, RN.

Siphona ingerae Andersen
This is known from a few sites in southern England but may have been overlooked because of its early flight period, March to early May. The hosts are unknown according to Belshaw (1993).
WICKLOW: Knocksink Wood (O2117), male, 27.iii.1987, JPOC and female, 10.v.1984, JPOC.

Siphona maculata Staeger in Zetterstedt
This is a parasite of Noctuidae, frequent throughout Britain, flying from late April to early June.
TIPPERARY: near Ballina (R710725), male, 20.v.1985, JPOC and MAOC; LEITRIM, shore of Lough Rinn, male, 10.v.1970, PJC; DOWN: Clandeboye, male, 5.v.1970, PJC.

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Dipterists Digest 2000 7, 19-20

Dipterists Day Exhibits 1999 - compiled by Editor from exhibitors' notes

This year the venue returned to London and the meeting for the first time took place prior to the BENHS Exhibition. There was a decline in the number of exhibits at both events, hopefully not indicative of any trend, but a larger number of exhibits were in common. Details of the exhibits by A. Godfrey, A. Halstead, S. Miles, M. Parker, A.E. Stubbs and J. Stubbs will be included in the BENHS Exhibition Report and only those exhibits which did not re-appear two weeks later are detailed here. The customary prize for the most informative exhibit was awarded to Laurence Clemons, who demonstrated his ability to find new and little known species in Kent.

CLEMONS, L. — Rare and local Diptera recorded in Kent in 1998 and 1999: *Ctenophora pectinicornis* (Linnaeus) (Tipulidae), the fifth Kent record, Northward Hill RSPB Reserve (TQ 7876 and TQ 7875), 25.v.1999, three males and one female were observed attracted to elder (*Sambucus nigra*) flowers; *Stratiomys longicornis* (Scopoli) (Stratiomyidae), Crossness NR near Erith (TQ 492806), 16.v.1998, a single male at flowers of giant hogweed (*Heracleum mantegazzianum*) in the company of numerous *Andrena* bees (Hymenoptera, Apidae) of which it is a passable mimic; *Leptarthrus vitripennis* (Meigen) (Asilidae), first Kent record, Bredhurst, 28.vi.1998 (recorded in *Bulletin of the Kent Field Club* **44**); *Empis volucris* Wiedemann in Meigen (Empididae), Southborough Common (TQ 573424), 26.vi.1999, the only other known Kent record being Horsham Marsh (TQ 842681), vii.1995, P.J. Hodge; *Rhamphomyia variabilis* (Fallén) (Empididae), Southborough Common (TQ 577427), 4.ix.1999, swept from *Calluna vulgaris* in a small patch of acid grassland (a note on the occurrence of this species in Kent was given by L. Clemons. 1999. *Entomologist's Record and Journal of Variation* **111,** 98-99); *Hercostomus chetifer* (Walker) (Dolichopodidae), Brockhill Country Park, Saltwood (TR 1435), 24.vii.1999, a single male swept from a small waterfall along the Stay Brook, the only previous Kent record being from Hothfield waterfall (TQ 977445), 27.vii.1996, L. Clemons; *Liancalus virens* (Scopoli) (Dolichopodidae), Brockhill Country Park, Saltwood (TR 1435), 24.vii.1999, apparently only the third record for the county; *Medetera obscura* (Zetterstedt) (Dolichopodidae), Pembury Walks (TQ 618432), several swept from a sandy woodland ride bordered by *Pinus sylvestris*, the first Kent record; *Brachypalpoides lentus* (Meigen) (Syrphidae), a male investigating a rot hole at the base of a beech (*Fagus sylvatica*) trunk, Southborough Common (TQ 573424), 26.vi.1999; *Criorhina ranunculi* (Panzer) (Syrphidae), the second Kent record from Cromers Wood, near Sittingbourne (TQ 905605), 27.iii.1999; *Epistrophe melanostoma* (Zetterstedt) (Syrphidae), Denge Wood (TR 106528), 15.v.1999, several visiting flowers of wood spurge (*Euphorbia amygdaloides*) in a woodland clearing on the chalk; *Rhingia rostrata* (Linnaeus) (Syrphidae), Covert Wood (TR 1748), 25.ix.1999, numerous on flowers of devil's bit scabious (*Succisa pratensis*) along a woodland ride and also recorded in 1999 from Kingston, near Canterbury (TR 1950), 27.iv.1999 by L. Clemons and at Denge Wood (TR 107524), 6 and 9.v.1999 by A.E. Stubbs, these early records adding to the suggestion that *R. rostrata* is double-brooded; *Campiglossa malaris* (Séguy) (Tephritidae), a female swept from hoary ragwort (*Senecio erucifolius*), Queenborough Lines (TQ 931744), 17.vii.1999, indicating a substantial westward extension in range of this species previously recorded in Britain only from East Kent; *Aphaniosoma* sp. indet. (Chyromyidae), of which the identity is to be clarified by Ismay and Clemons (in preparation), swept from a dry grassy canal bank at Queenborough Lines (TQ 931744), 17.vii and 6.viii.1999; *Macronychia griseola* (Fallén) (Sarcophagidae), Chestnut

Street near Newington (TQ 867637), 3.vii.1999, a single male swept from heathland vegetation on an east-facing sandy bank, a further Kent record from Bickley in 1980; *Catharosia pygmaea* (Fallén) (Tachinidae), first Kent record from Wrotham Water (TQ 6260) (already published by L. Clemons. 1999. *Entomologist's Record and Journal of Variation* **111,** 197-198); *Litophasia hyalipennis* (Fallén) (Tachinidae), Queenborough Lines, Isle of Sheppey (TQ 920739), 17.vii.1999, several swept from the flowers of *Daucus carota* (notes on its occurrence in Kent were given in *Entomologist's Record and Journal of Variation* **104,** 201-202, **111,** 27-35 and **111,** 197-198); *Gymnosoma nitens* Meigen (Tachinidae), Darenth Park (TQ 569724), 26.vii.1998, the fifth Kent record; *Phasia barbifrons* (Girschner, 1887) (Tachinidae), new to Britain, two males from a grassy pasture at Reynold's Lane, Tunbridge Wells (TQ 578409), 1.vi.1999 - after identification of this species by Nigel Wyatt earlier collected specimens were identified from Oxleas Wood (TQ 4475), 3.ix.1993, in a woodland clearing containing garden golden-rod (*Solidago* species) and Roadside Wood (TQ 647552), 28.viii.1994, in an area of *Calluna*-dominated heathland along with *P. obesa* (Fabricius) and *P. pusilla* Meigen (a detailed account of this species is under preparation).

CROSSLEY, R. — Some Notable Diptera recorded in Yorkshire in 1999: *Orthoceratium lacustre* (Scopoli) (Dolichopodidae), a strong population in a damp hollow on the upper beach at Kilnsea, just north of Spurn, early in September, new to Yorkshire. The remaining specimens had all been taken during a survey at High Batts Reserve bordering the River Ure a few miles upstream from Ripon: *Dictenidia bimaculata* (Linnaeus) (Tipulidae), scarce in Yorkshire; *Nephrotoma crocata* (Linnaeus) (Tipulidae), an RDB3 species very scarce in Yorkshire; *Tipula laetabilis* Zetterstedt (Tipulidae), RDB2, new to England; *Platypalpus bilobatus* Weber (Hybotidae), proposed RDB1, common at this site; *Oedalea ringdahli* Chvála (Hybotidae), RDB3, several of both sexes occurred; *Platyparea discoidea* (Fabricius) (Tephritidae), RDB2, numerous in late April and May.

DRAKE, C.M. — The thirteen species of the genus *Notiphila* (Ephydridae) known from Britain, including the two recent additions (as reported in the previous issue of *Dipterists Digest (Second Series)* **6,** 113). Of the two latter *N. subnigra* Krivosheina is a rare species while *N. graecula* Becker is common and widespread and found in the company of the very similar *N. cinerea* Fallén. The other apparently rare species are *annulipes* Stenhammar and *stagnicola* (Robineau-Desvoidy). The remaining species are widespread, only *uliginosa* Haliday and *caudata* Fallén appearing uncommon.

SUMNER, D. — A selection of Diptera collected in South Africa in 1999.

A second record of *Chetostoma curvinerve* (Rondani) (Diptera, Tephritidae) from Cornwall - On 26 April 1999 we took a specimen of *Chetostoma curvinerve* (Rondani) at Pendarvis Wood, a Cornwall Wildlife Trust Reserve, near Camborne, West Cornwall (SW 645376). Pendarvis Wood is a mixed wood with a lake and stream (R. Bere *et al.* 1982. *The Nature of Cornwall.* Barracuda Books).

Recent records have been reviewed by Peter Chandler (1998. *Dipterists Digest (Second Series)* **5,** 107-108), including the first Welsh record. Similarly to the Welsh site, there are many mature rhododendrons at Pendarvis Wood. The previous Cornish specimen was taken, on 4.x.1983 by Peter Chandler (1987. *Entomologist's monthly Magazine* **123,** 204), at Kennack Cove - **KEN** and **RITA MERRIFIELD,** 8 Hawthorne Avenue, Eastcote, Middlesex HA4 8SS

Dipterists Digest 2000 **7**, 21-23

Allotrichoma bezzii Becker (Diptera, Ephydridae) new to Britain

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Summary
The occurrence in Britain is reported of *Allotrichoma bezzii* Becker, 1896 (Ephydridae); a named species of the genus is thus added to the British list and replaces *Allotrichoma* sp. indet. listed in the 1998 British Diptera checklist.

Most ephydrids have hidden male genitalia which require moderate to considerable effort to extract. I was excited to find a specimen of *Allotrichoma* which is instantly recognisable by its long external genitalia resembling those of some dolichopodids rather than acalyptrates. The species was *A. bezzii* Becker, 1896, and was readily identified using Zatwarnicki (1991) and Krivosheina and Zatwarnicki (1997), who illustrated the male genitalia of several species known from Europe and Asia outside the tropics. Chandler (1998) included *Allotrichoma* on the British list but gave no species, as Cogan (1984) had queried the identity of the British species as *laterale* (Loew), based on a single female whose identity has not been confirmed.

The single male was collected from Hartland Moor National Nature Reserve, Dorset (grid reference SY 947856) on 12 July 1999. The site is an extensive acid valley mire with plants such as *Molinia caerulea*, *Drosera* and *Rhynchospora alba* being common. The mire abuts dry heath. The area that was swept was the naturally drying-out margin to the bog which itself was impossible to walk on safely. Small pools and a narrow drainage channel were also swept. Other ephydrids collected here were unremarkable, and the less frequently encountered species included *Ochthera mantis* (De Geer), *Scatella lutosa* (Haliday), *Psilopa leucostoma* (Meigen) and *Hydrellia subalbiceps* Collin. Some other uncommon flies included the dolichopodids *Campsicnemus compeditus* Loew, *Hydrophorus nebulosus* Fallén and *Tachytrechus consobrinus* (Haliday) and the tabanid *Chrysops sepulcralis* (Fabricius), which are species associated with acid mires of high conservation value.

The unidentified female specimen in the BMNH was collected by J. Dear at Bovington Camp on 2 August 1974, 'swept from edge of ponds on road to Wool'. It would seem likely that it is *bezzii* since this site is about 12km from Hartland Moor and on the same heathland complex. The species may well have a restricted distribution in Britain.

The distribution of *Allotrichoma bezzii* given by Krivosheina and Zatwarnicki (1997) covers a wide area of Europe, including France, Germany and Sweden, so its presence in Britain could have been expected. Several other species in the genus occur in nearby countries and of these *laterale* is the more likely to occur in Britain (it is found in Belgium, France and Germany), whereas others such as *filiforme* Becker and *schumanni* Papp appear to have a more southern distribution, as given in Mathis and Zatwarnicki (1995). The habitats of *bezzii* mentioned on labels of specimens seen by Krivosheina and Zatwarnicki are 'lakeshore-swamp' and sand, neither suggesting that it is restricted to acid mires.

The genus *Allotrichoma* may be recognised among other genera of ephydrids found in Britain by the combination of pectinate arista; mesonotum with about ten rows of small similarly sized setae; a single pair of large prescutellar 'dorsocentral' setae and pair of posterior intra-alars in a row just in front of the scutellum (as in *Psilopa*); the posterior notopleural setae placed much higher than the anterior one (in most ephydrids both are placed about equally close to the suture with the anepisternum); only four obvious tergites, the fifth much reduced and scarcely visible

(five or more are the norm); and a small tubercle on the face. My specimen is almost uniformly blackish brown from the head to the end of the abdomen (the katepisternum is slightly greyer), and the legs are black apart from the yellow first and second tarsomeres of the middle leg. It is 1.9mm long, about the size of the common *Scatella tenuicosta*. The male genitalia of *A. bezzii* have distinctively hairy cerci which are at least two-thirds the length of the long fourth tergite, and are held externally, almost as shown in Fig. 1 (they were pulled downwards slightly for a clearer view). It would seem that females cannot be identified, as Papp (1974) commented that the species can be separated only by examination of the male genitalia.

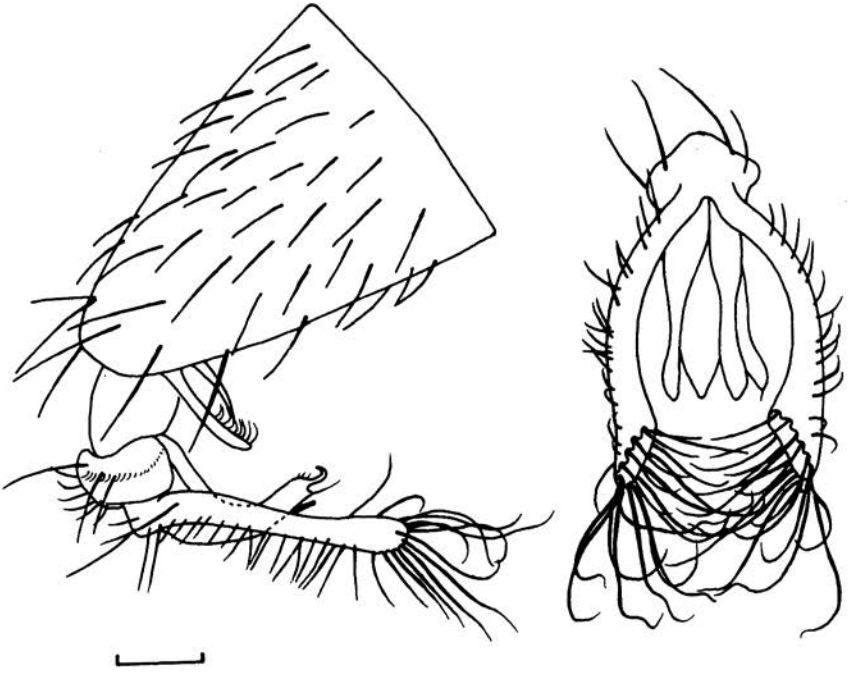

Fig. 1. *Allotrichoma bezzii* Becker, male genitalia, lateral view showing cerci in their approximately natural position relative to the fourth tergite, and ventral view. The aedeagal appendages between the long cerci seen in ventral view were distorted, so that one appendage appears to be unpaired. Scale bar represents 0.1mm.

Acknowledgements

I thank English Nature for permission to collect on Hartland Moor NNR and Tony Irwin for information on the female specimen in the BMNH.

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Two recent records of the cranefly *Symplecta novaezemblae scotica* (Edwards) (Diptera, Limoniidae), including a first for Wales

Single males of the cranefly *Symplecta novaezemblae scotica* (Edwards) - previously known as *Erioptera scotica* - were collected from Gutterby Cliff in Cumberland (V.C. 70; SD 097847) on 16 June 1999 and from Porth Ceiriad in Caernarfonshire (V.C. 49; SH 313248) on 24 June 1999, only the third and fourth localities for this species in the UK. It was first recorded from Dingwall, East Ross in 1902 but with no further records until a female and four males were taken by Alan Stubbs on 17 August 1988 from sparsely vegetated wet seepages on unstable cliffs at Speeton Cliffs in South-East Yorkshire (V.C.61).

Although the exact point of capture is not known for either specimen taken in 1999, the two sites share a number of habitat features with the Yorkshire locality. The south-west facing coastal cliffs at Gutterby Cliffs are composed of fine muds and sands which are eroding quite rapidly, and there are numerous springs and seepages and rather sparse, short vegetation. Porth Ceiriad is a more stable, south-facing coastal soft cliff comprising a lens of coarser glacial till between two rocky headlands, but again with numerous seepages and a predominantly pioneer vegetation. The larvae of *S. novaezemblae scotica* may be aquatic and require very open seepages, and searches of other soft cliff localities offering such conditions may yield further records of the cranefly.

We thank Alan Stubbs for identifying the specimen from Gutterby Cliffs, confirming the identity of the Porth Ceiriad specimen and providing the information regarding his record for Speeton Cliffs - **M.A. HOWE** and **E.A. HOWE**, Countryside Council for Wales, Plas Penrhos, Ffordd Penrhos, Bangor, Gwynedd, LL57 2LQ

A record of *Palloptera anderssoni* Rotheray and MacGowan (Diptera, Pallopteridae) from southern Scotland - Recently G.E. Rotheray and I. MacGowan (1999. *British Journal of Entomology and Natural History* **11,** 175-179) described *Palloptera anderssoni* based on specimens collected in Perthshire and Angus in Scotland, and in Finland. *P. anderssoni* is a small clear-winged species, otherwise resembling *Palloptera ustulata* Fallén which has a dark cloud at the tip of the wing (Collin, J. E. 1951. *Entomologist's Record and Journal of Variation* **63,** 1-6).

A male *Palloptera* in my collection closely matched the descriptions and drawings of this new species. Identification of the specimen was confirmed by one of the authors (Graham E. Rotheray) at the National Museums of Scotland. The long apical filament of the aedeagus which widens and forms a bifurcated tip of unequal arms (Rotheray and MacGowan *loc. cit.*, Fig. 3a) is distinctive. The filament described as elongate oval by Rotheray and MacGowan (*loc. cit.*, Fig. 3a), however, is shaped distinctly like a meat-cleaver in my specimen.

My specimen was reared from a puparium collected on 7.v.1994 from under the bark near the snapped end of a branch of a large fallen beech (*Fagus sylvatica*) tree in Roslin Glen, a few miles south of Edinburgh (NT 274627, V.C. 83). The adult emerged on 14.vi.1994. The beech tree was likely to have only recently fallen as the bark was largely intact and tightly adpressed to the wood. The puparium was taken in cambial decay and many small fly and beetle larvae were also present under the bark. This is the first rearing record of *P. anderssoni* from beech. Rotheray and MacGowan (*loc. cit.*) bred *P. anderssoni* from *Tilia europaea*, *Acer pseudoplatanus*, *Quercus* species and *Betula* species. At least the latter three species or genera also occur in Roslin Glen, providing additional potential host trees.

Previous records in Scotland are from Glen Clova in the Highlands, or from sites in Perthshire just south of the Highlands (Rotheray and MacGowan *loc. cit.*). This is the first record from southern Scotland - **DAVID HORSFIELD,** 131 (3F1) Comiston Road, Edinburgh, EH10 6AQ

Another record of *Philocoprella quadrispina* (Laurence) (Diptera, Sphaeroceridae) - On 10 September 1999, I found seven males and five females of *Philocoprella quadrispina* (Laurence) on horse dung together with eight other species of sphaerocerid in a horse grazed field with no cattle in the vicinity. The field, at TL 225511, is just in Cambridgeshire near Gamlingay with a hedge on one side forming the county boundary with Bedfordshire. The other species present have all been recorded on horse dung and are common or relatively widespread (Pitkin, B.R. 1988. *Handbooks for the Identification of British Insects* **10**(5e), 1-175).

I record this as an extension of the range of this tiny and apparently rare sphaerocerid and to remove any doubt that it can exist on horse dung as well as cow dung. J.W. Ismay (1997. *Entomologists' Monthly Magazine* **133,** 15) found it on both cow and horse dung at Burnham Beeches NNR, Buckinghamshire, but the two were close together, and the only earlier records from Britain were both from cow dung. There is too little information to indicate whether there is a preference for one or the other - **JONATHAN COLE,** 2 Lenton Close, Brampton, Huntingdon, Cambs., PE18 8TR

A variable key character in *Chrysotus laesus* Wiedemann (Diptera, Dolichopodidae) - Ivan Perry and I swept several specimens of the scarce dolichopodid *Chrysotus laesus* Wiedemann on north facing limestone grassland at Arnside Knot, Cumbria (SD 454776), on 17 June 1999 during the Dipterists Forum summer field meeting at Grange-over-Sands. Ivan subsequently showed me a female that he was doubtful about because it had a distinct anterodorsal (ad) bristle at the basal third of the middle tibia which should not be present according to the key in Assis-Fonseca (1978 *Handbooks for the Identification of British Insects* **9**(5), 1-90). Examination of four females I had from the same site showed that one had an ad bristle shorter than the width of the tibia, but distinct from the lines of hairs, a second had a bristle slightly longer than the width of the tibia, while the other two had a bristle at least twice as long. The only other *laesus* I have are three from the Breck area of Norfolk and Suffolk which have no trace of this bristle. Peter Dyte has kindly examined four females in his possession (all from the nest of a sphecid wasp, *Crossocerus elongatus* (van der Linden), at Maidenhead, Berkshire) and writes (*pers. comm.*): "on the middle tibia one has an ad at about the basal third on both middle legs. Two have a comparable bristle on the mid tibia on one side but on the other mid tibia it is missing or obscured. The fourth appears to lack this bristle but has a weak posterodorsal (pd) beyond the middle on both mid tibiae." He also writes that the only identifiable *C. laesus* in the BENHS collection at Dinton Pastures has one strong ad bristle at about the basal third on both middle legs, also a weak pd bristle at the apical third on the right tibia and nearer the middle on the mid tibia.

O. Parent (1938. *Faune de France* 35. Diptères Dolichopodidae) stated in the key to female *Chrysotus* that the middle tibia is without bristles; however in the description of *C. laesus* (pp. 542-543) he stated that the male has a quite distinct ad bristle on the middle tibia while this bristle is not mentioned among characters in which the female differs from the male, so by implication, it is present in the female also. Assis-Fonseca (*op.cit.*) stated in couplet 4 of his key to female *Chrysotus* as a supporting character "middle tibia without bristles on shaft". He based his keys on Parent (*op.cit.*) and overlooked the discrepancy in that work. The variability of this character does not appear to have been noted by users of the Handbook, which perhaps is a comment on the number of workers who examine female *Chrysotus.*

As Parent's Faune de France monograph is still widely consulted it is relevant in the present context to draw attention to *Chrysotus enderleini* Parent, a species described as new in that work, which runs to the same couplet as *laesus* in the keys to both sexes. It is contrasted with *laesus* in the male principally by the presence on the middle tibia of a well developed ad bristle, and in the female by this bristle only. However, as noted above, this bristle is stated to be present in the description of *laesus* and, from a comparison of the two species from these descriptions, there do not appear to be any other features which could be used to separate them with confidence except the absence of strong violet reflections, so characteristic of male *laesus.* In a revision of the *C. cilipes* and *C. laesus* groups, Negrobov (1980. *Entomologicheskoe Obozrenie* **59,** 415-420, English translation 1982) states, having examined the types, that *enderleini* is a junior synonym of *laesus* and this is repeated in the Palaearctic Catalogue (Negrobov, O. 1991. Family Dolichopodidae. **In** Soós, Á. and Papp, L. (Eds) Catalogue of Palaearctic Diptera **7,** 11-139).

My thanks to Ivan Perry for drawing my attention to the *C. laesus* key error and to Peter Dyte for additional data and useful comments - **JONATHAN COLE,** 2 Lenton Close, Brampton, Huntingdon, Cambs., PE18 8TR

Recent records from Epping Forest, Essex of *Ctenophora flaveolata* (Fabricius) (Diptera, Tipulidae) - During a recent survey of the Diptera of Epping Forest NNR (candidate SAC) conducted by the Corporation of London, several specimens of *Ctenophora flaveolata* (Fabricius) were seen. This species is accorded RDB2 (Vulnerable) conservation status in Falk (1991. A review of the scarce and threatened flies of Great Britain (Part 1). *Research and survey in nature conservation.* **39**). Most records are of single specimens, some associated with beech (*Fagus sylvatica*). The early stages are undescribed and the habitat and ecology of the species is unknown. The crane-flies of Epping Forest have been listed by Payne (1968. *Entomologist's Gazette* **19,** 33-43) in which he recorded four specimens from the Forest, one prior to 1875 by H. Doubleday and others in 1939, 1946 (in Great Monk Wood on a beech trunk) and 1948. These appear to be the latest records from Epping Forest available to us.

Epping Forest is particularly rich in old and dead beech with which *C. flaveolata* has been associated. The first specimen of *C. flaveolata* was found at Goldings Hill (TQ 426978) on 26.v.1999 by Roy Crossley. It was flying close to a small stream in beech woodland by a ride-side. On the following morning (27.v.1999) a visit was made to Copley Plain (TQ 432992) and the Furze Ground (TQ 432987), open heathy sites surrounded by overgrown beech and oak (*Quercus* species) wood-pasture connected by a small stream valley known as Hangboy Slade. The first sighting was made by JRD of an individual flying up and down the south side of the trunk of a large beech pollard at Copley Plain; it flew close to the bark for several minutes, at a height of 1 to 1.3m, before flying on after a failed attempt to net it. J. Dobson (1998. *Dipterists Digest (Second Series)* **5,** 68-69) recorded females of *C. pectinicornis* (Linnaeus) behaving similarly, flying up and down the trunk of a damaged beech at Stanmore Common, Middlesex.

Immediately following this observation, a female *C. flaveolata* was seen by JRD and JWI close to a stream, investigating a rothole about 1.5m high in a living beech. It probed the surface of the rothole, which was filled with rotten dead wood and appeared to be of a dry consistency, with its ovipositor, as if ovipositing or testing its suitability for oviposition. Sightings by others present may have been of the same individual. Later the party repaired for lunch above Copley Plain, in the dappled shade provided by several large beech pollards under which were scattered tussocks of purple moor grass (*Molinia caerulea*). At least two *C. flaveolata* were seen to fly past the party; since the light wind and direction of flight were towards Hangboy Slade, these brought the total seen during the morning to at least four. The flight of the specimens was slow, close to the ground (below 1 metre) and interrupted by stops; it did not resemble the purposeful flight of a wasp. In the afternoon of the same day the party visited the Wake Valley Ponds (TQ 418988) area and two more *C. flaveolata* were seen. Both Hangboy Slade and Wake Valley had numerous beeches in open woodland (National Vegetation Classification W15 - see Rodwell, J.S., 1991. British Plant Communities volume 1, Cambridge University Press).

During 1999 a Malaise trap was set up adjacent to a fallen beech amongst holly at Epping Thicks (TQ 443005); another *C. flaveolata* was found in the catch inspected on 27.v.1999. Thus at least eight and probably more specimens were seen at Epping Forest in a short period and in widely separated compartments. This is an unprecedented number of specimens as far as is known from the literature or the experience of the current generation of dipterists. The species is evidently widely established in Epping Forest and in no immediate danger of extinction. We thank the Corporation of London for financing the survey of Epping Forest, Roy Crossley for permission to include his record and Alan Stubbs for useful information - **JEREMY R. DAGLEY,** Corporation of London, The Warren, Loughton, Essex IG10 4RW (email jeremydagley@epping.forest.city2000.net) and **JOHN W. ISMAY**, Hope Entomological Collections, Oxford University Museum of Natural History, Parks Road, Oxford OX1 3PW (email john.ismay@oum.ox.ac.uk)

Dipterists Digest 2000 7, 27-29

The Gentian-feeding anthomyiid *Botanophila tuxeni* (Ringdahl, 1953) (Diptera, Anthomyiidae), new to Britain

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Summary

Botanophila tuxeni (Ringdahl, 1953) (Anthomyiidae) is added to the British list and its biology is newly recorded, larvae developing in seed-heads of *Gentianella campestris*.

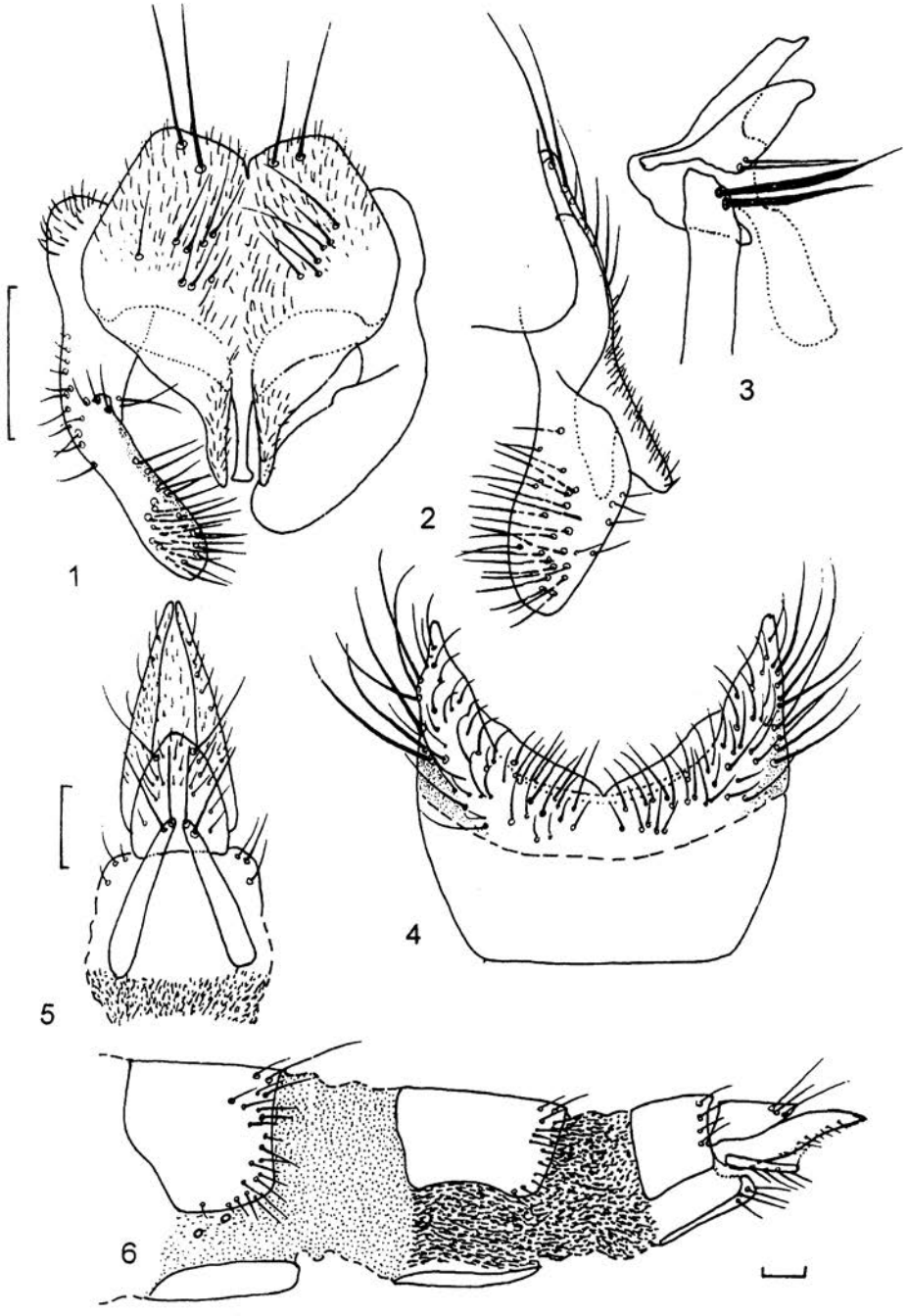
Bland (1998) suggested that *Botanophila gentianae* (Pandellé, 1900) should be considered as a British species on the basis of larval remains found in the seed-capsules of *Gentianella campestris* in Perthshire. This conclusion was based on:

1. *B. gentianae* was the only European species known to the author that fed on Gentianaceae.
2. The similarity of the larval cephalopharyngeal skeleton with that illustrated for *B. gentianae* by Dušek (1969).

On 21 and 22 September 1998 an unexpected opportunity arose to revisit the area from which the original material was obtained. A collection of undehisced seed heads of *G. campestris* from Carn an t-Sionnaich (NO 0075), Fealar, Perthshire (V.C. 89) produced several puparia which eventually produced a single male anthomyiid (emerged 20.vi.1999) and two parasites (emerged 16 and 20.vii.1999). The fly larvae left the seed heads and burrowed up to 2cm down into the damp sand provided before pupating. A similar collection of seed heads only of *G. amarella* from a nearby base-rich area above Gleann Mòr Bridge (NO 0077) produced a further three male anthomyiids (emerged 20.vi., 27.vi and 4.vii.1999) as well as another parasite (emerged 29.vii.1999).

These anthomyiid flies, in fact, turned out to be *Botanophila tuxeni* (Ringdahl, 1953), not *B. gentianae* as originally supposed. The identification was kindly confirmed by Verner Michelsen of the Zoological Museum, Copenhagen, from illustrations of the male genitalia sent to him. *B. tuxeni* is one of a group of species feeding on Gentianaceae. This group consists of *B. tuxeni, B. gentianae* and two undescribed species from the Alps (V. Michelsen, *pers. comm.*). *B. tuxeni* is also known from Iceland (type locality), Norway, central Sweden, Austria, Mongolia and China.

Botanophila tuxeni is a small (about 4mm long) species of *Botanophila,* which belongs (from a taxonomic point of view) to a group of species which may be characterised in the male as follows: surstyli short and not bilobed at apex, with numerous stiff setulae on inner surfaces, cercal plate large, tapering distally, the apex narrowly divided into closely approximated lobes; beneath these lobes is a sclerotised projection which is either apically widened or clearly bifurcated (Figs 1, 2 and 3). The earliest described species belonging to this group appears to be *B. rubrigena* (Schnabl, 1915); other western Palaearctic species in this group are *lactucaeformis* (Villeneuve, 1923) (= *setiforceps* (Ringdahl, 1952)), *rubrifrons* (Ringdahl, 1933) and *setifrons* (Hennig, 1970) (see Hennig 1970 for further details). None of these species has yet been recorded from Britain. *B. tuxeni* is therefore the first record of any species of this group from Britain.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The male of *tuxeni* has the following non-genitalic characters which may help in its recognition, but species of *Botanophila* can often only be identified with certainty by examining the genitalia: head with a straight genal margin when viewed in profile, with biserial genal setae, proboscis long and dusted, prealar seta more than half length of posterior notopleural seta, acrostichal setulae fine and hair-like, abdomen densely dusted with a distinct median vitta, 5th sternite processes short and pointed (Fig. 4). The female of *tuxeni* has long and laterally compressed cerci (Figs 5, 6), a character only known in British species of *Botanophila* in *latifrons* (Zetterstedt, 1845). The female of *gentianae* has a normal ovipositor.

B. gentianae differs from *tuxeni* (and the other species mentioned above) in having the surstyli forked distally and in having long processes on the 5th sternite.

B. tuxeni may be widespread in the Scottish Highlands, for old seed heads of *G. campestris* at Over Bohespic (NN 7361), Perthshire (V.C. 88), on 22.x.1999 were found to contain a vacated parasitised puparium of this species. Identity of the puparium was based on comparison of the posterior spiracular area with that of puparia from reared material.

All three parasites keyed out to the genus *Trybliographa* Förster, 1869 (Hymenoptera: Cynipoidea, Eucoilidae) in Quinlan (1978), but did not smoothly run to any of the known British species.

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Figs 1-6. *Botanophila tuxeni* (Ringdahl). 1, male cercal plate and surstyli, caudal view (right surstylus distorted in preparation); 2, ditto, lateral view; 3, gonites and aedeagus; 4, 5th sternite; 5, apical segments of female ovipositor, ventral view; 6, ovipositor, lateral view. Scale 0.1 mm. (Male: Perthshire; female: Iceland).

Notes on some Notable Diptera found in England in 1998-1999 -

Asilidae: *Machimus cingulatus* (Fabricius). At Beeding Hill, W. Sussex (TQ 2009) several were found on the areas of closely cropped downland turf on chalk, on 12 and 20.viii.1999, a remarkable capture as the nearest sandy heathland is many kilometres away. Two females of *Machimus rusticus* (Meigen) were found beside a belt of scrub, bordering the site, on 12.viii.1999.

Asilus crabronifromis (Linnaeus) was found in small numbers around cow pats on a grazed downland slope adjacent to the above site in vii.1999. I found two females at the Berengrave Local Nature reserve, Lower Rainham , N. Kent (TQ 8267), on 9.ix.1999. They were seen near rabbit middens in closely cropped calcareous grassland on the site of a former cement works.

Stratiomyidae: *Odontomyia argentata* (Fabricius). One female was swept from open fen adjacent to the River Whitewater at Greywell Moors, N. Hampshire (SU 7150) on 3.v.1999. The discovery of this RDB2 species at this superb area of calcareous fen was not a great surprise, as conditions are similar to the river valley fens along the Test where it as been recorded at Leckford, N. Hampshire.

Odontomyia tigrina (Fabricius). This Notable species is widespread and locally frequent around marshy ponds in Southern England. It was found in Surrey at Thundry Meadows (SU 8943), v-vi.1999 and West End Common (TQ 16) and in N. Hampshire at Greywell Moors (SU 7150) and Lakeside Park (SU 8851); at the latter site dozens were swept from weedy margins of old gravel ponds, v-vi.1999. In Berkshire it was found at Grazeley (SU 6966), around a village pond overgrown by *Typha latifolia* vi.1998-1999, and near Grove (SU 4391), v-vi.1999.

Oxycera morrisii Curtis. One female was swept from tall riverside vegetation (*Phalaris, Epilobium hirsutum*) at the margins of a calcareous stream at East Meon, South Hampshire (SU 6722), on 18.vii.1999.

Vanoyia tenuicornis (Macquart). This was abundant on alder bushes in open fen at Greywell Moors, N. Hampshire (SU 7150) in v-vi.1999. At Ovington, also N. Hampshire (SU 5533), it was numerous on tall riverside vegetation next to the Alre. It occurred with *Oxycera nigricornis* Olivier at both sites

Rhagionidae: *Symphoromyia crassicornis* (Panzer). At Dodderham Moss, Yorkshire (SD 7787), one male was swept from a wet area on open moorland, adjacent to a flowing roadside ditch, 8.vii.1999.

Dolichopodidae: *Tachytrechus insignis* (Stannius). Adults were abundant around the margins of puddles on bare sandy ground in Frith End Sandpit, N. Hampshire (V.C. 12) (SU 8139) on 11.v.1999. I also took a male around puddles on open sandy heathland near Miles Hill, also V.C. 12 (SU 8352) on 8.vi.1999. This distinctive species is listed as occurring on damp sand at coastal sites around much of Britain (d'Assis-Fonseca, E.C.M. 1978. Diptera Orthorrhapha Brachycera Dolichopodidae. *Handbooks for Identification of British Insects,* **9**(5).), but no land-locked counties are mentioned.

Sciomyzidae: *Anticheta analis* (Meigen) (RDB3). At Greywell Moors, N. Hampshire (SU 7150) 3.v.1999, one male was swept from a *Carex* tussock. Peter Chandler found this fly at this site in 1992, and these appear to be the first records for V.C. 12, and possibly Hampshire. At Thundry Meadows, Surrey (SU 8944) two males, swept from tussocks in open carr in 1999, may be the first county record for this species. The Notable *Psacadina verbekei* Roskosny was

abundant at both sites in May, and was also frequent around ponds at Lakeside Park, Surrey (SU 8851), vi-vii.1999.

Conopidae: *Conops vesicularis* Linnaeus. In recent years I have come to associate this fly with bilberry *Vaccinium myrtillus*. At Crooksbury Hill, Surrey (SU 8745) and Woolmer Forest, N. Hampshire (SU 79-8032), *C. vesicularis* is not infrequent in May around flowering stands of bilberry growing amongst pine *(Pinus)* woodland, where they repeatedly chase visiting bumblebees (*Bombus* species). I found singletons on bilberry at Stoney Castle Ranges, Surrey (SU 9255) and Rowhill LNR, Surrey (SU 8549), both on 22.v.1998. It is clearly more catholic in its habitat needs. I took a male at the flowers of *Rhododendron* growing amongst mature beech (*Fagus*) trees at Mountain Wood, Surrey (TQ 0950) on 21.v.1998. Ray Fry took a pair *in copula* at the edge of an old pasture woodland dominated by oaks (*Quercus*), at Binswood, N. Hampshire (SU 7738) on 4.v.1999. S. Falk (1991. *A review of the scarce and threatened flies of Great Britain (Part 1)*. Research and survey in nature conservation No.39. JNCC Peterborough) mentioned a possible association with the hornet *Vespa crabro* Linnaeus, but this is not an option in much of Surrey and adjacent parts of N. Hampshire where hornets are strangely absent.

Myopa fasciata Meigen. A female was swept off mature heather (*Calluna vulgaris*) at Witley HCT Nature Reserve, Surrey (SU 9239) on 5.viii.1999.

Anthomyiidae: *Eustalomyia festiva* (Zetterstedt). At Esher Common, Surrey (TQ 1262) on 4.viii.1999, a freshly emerged male was found on a rotten beech stump, which also supported several wood nesting aculeates including *Ectemnius* species (Hymenoptera, Sphecidae) - **JONTY DENTON,** 2 Sandown Close, Alton, Hants, GU34 2TG

A rearing record of *Rocetelion humerale* (Zetterstedt) (Diptera, Keroplatidae) from the Black Isle, Scotland

- During a meeting of the Malloch Society on the Black Isle (V.C. 106) on 18.v.1997 I collected three vermiform fly larvae from a birch log in Braelangwell Wood (NH 688630). The larvae were found on the surface of a resupinate white fungal fruiting body with a porous spore-bearing surface. The larvae were noted as having spun loose strands of silk with drops of fluid on the spore-bearing surface of the polypore. The fruiting body was fresh, hard in consistency and growing on the internal surfaces of soft white sapwood within a birch log covered in loose bark. The log with the larvae was lying on the ground within an open part of the wood with native Scots pine (*Pinus sylvestris*) and birch (*Betula*).

The larvae were reared along with a sample of the fungal fruiting body attached to sapwood removed from inside the log. One larva pupated and an adult male emerged on 13.vi.1997. One larva died and was preserved but is in poor condition, as was the empty pupa when it was removed. The preserved larva is 23mm long and has false segmentation. The male was readily run down to *R. humerale* in the key provided by A.M. Hutson, D.M. Ackland and L.N. Kidd (1980. *Handbooks for the Identification of British Insects* **9**(3), 111 pp., 34 plates) and confirmed by comparison with the illustration of the male genitalia.

P.J. Chandler (1992. *British Journal of Entomology and Natural History* **5**, 21-22) confirmed *R. humerale* as a British species and new to Scotland on the basis of a male specimen taken by Andrew Godfrey at Loch Loy in the Culbin Forest near Nairn and noted that other

British records from Gloucester and Somerset cannot be authenticated because of lack of specimens. According to Peter Chandler (*pers. comm.*) the only reference to rearing appears to be by A.I. Zaitzev (1994. [*Fungus Gnat Fauna of Russia*]. Part 1. 287 pp. Moscow) where an association with an unnamed encrusting fungus is mentioned, an observation confirmed by the rearing reported here.

I am grateful to Peter Chandler for checking the identification of the adult male and providing other information about the species - **DAVID HORSFIELD,** 131 (3F1) Comiston Road, Edinburgh, EH10 6AQ

***Neoitamus cothurnatus* (Diptera, Asilidae) new to Wales** - A male and female of the endangered (RDB1) robberfly *Neoitamus cothurnatus* (Meigen) were collected from Mynydd y Gaer in Glamorgan (V.C. 41; SS 958865) on 17 July 1997. This is the first record of this species from Wales and the first UK record since 1921 when it was collected from Tubney Wood in Oxfordshire (V.C. 22, Berkshire). Previously, the robberfly was known only from Tubney Wood, where it was collected over a twenty year period, and from Stow Wood in Oxfordshire (V.C. 23) where it was recorded in 1895 (Falk, S.J. 1991. *A review of the scarce and threatened flies of Great Britain (Part 1)*. Research and Survey in Nature Conservation. **39.** Peterborough, Nature Conservancy Council). G.H. Verrall (1909. *British Flies.* 5. Gurney & Jackson, London) reported that W. Holland recorded a male at Stow Wood on 10 June 1895, and a male and female at Tubney Wood on 2 June 1901.

Based on the English records, *N. cothurnatus* was thought to be restricted to mature broad-leaved woodland and perhaps only woods growing on calcareous soils, although in Europe adults can be found in open, coniferous and deciduous woodland typically low down on the foliage of taller herbs (Speight, M.C.D. 1988. *Irish Naturalists Journal* **22**, 485-487). By contrast, the Glamorgan site is markedly different both in terms of habitat and topography. The flies were taken on the north-west facing slopes of Mynydd y Gaer at an altitude of about 200m in a narrow band of flushed vegetation in a landscape otherwise dominated by stands of dense bracken on rather acidic, well-drained loamy soils, and with a small mature conifer plantation lying immediately to the east. The flushes on these waterlogged peaty soils support a typical flora, with abundant purple moor-grass (*Molinia caerulea*) and jointed rush (*Juncus articulatus*), carpets of bogmoss (*Sphagnum* species), and frequent marsh thistle (*Cirsium palustre*) and marsh violet (*Viola palustris*), with bramble (*Rubus fruticosus*) on drier soils. Significant areas of birch (*Betula*) and willow (*Salix*) scrub also occur.

The two specimens of *N. cothurnatus* were swept from bramble bushes within the flushed vegetation but other details were not recorded as the significance of the find was not appreciated at the time. Subsequent visits in 1998 and 1999 have failed to relocate the fly, although these were a little later in the season (11 August 1998 and 4 August 1999). On both occasions, good numbers of the common robberfly *Machimus atricapillus* (Fallén) were recorded on bramble, bracken or resting on the trunks of birch and willow. The fly fauna of the flushed area of Mynydd y Gaer is otherwise unremarkable, although six species of tachinids and the horsefly *Atylotus fulvus* (Meigen) have been recorded to date.

I would like to thank Alan Stubbs and Martin Drake for confirming the identity of the Welsh specimens - **M.A. HOWE,** Countryside Council for Wales, Plas Penrhos, Ffordd Penrhos, Bangor, Gwynedd LL57 2LQ

Dipterists Digest 2000 **7**, 33-35

The hellebore leaf-miner *Phytomyza hellebori* Kaltenbach (Diptera, Agromyzidae) new to Britain

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Summary
Phytomyza hellebori Kaltenbach, 1874 (Agromyzidae), a leaf-miner of *Helleborus foetidus*, is added to the British list. It is uncertain whether it is native or introduced, but it is confirmed to be widespread in southern England.

A few days before Christmas my wife, Jane, picked some *Helleborus foetidus* leaves from our garden (TL 041004, V.C. 32) to put in a flower arrangement. Being well trained (!), she drew my attention to some leaf-mines that she had not noticed when picking such leaves in previous years.

The mines were almost certainly those of an agromyzid fly, but none of those in the Handbook (Spencer 1972) had this foodplant. It only took moments to look up Hering (1957) to find that the only European leaf-miner of any sort listed for *Helleborus* was *Phytomyza hellebori* Kaltenbach, 1874, a species not on the new British checklist (Chandler 1998). Peter Chandler confirmed that he was unaware of any other discovery of this species in Britain, so in early January the mine was compared with material in the Hering collection which is housed in the Natural History Museum (BMNH), London.

Having possibly got the last outdoor discovery of a species new to Britain in the old Millennium, the leaf concerned was exhibited at the BENHS meeting of 11 January 2000, and then deposited in the BMNH.

The leaves of *Helleborus foetidus* are palmate with about 8-10 lanceolate pinnules about 6-10mm across at their widest. The mines begin adjacent or close to the midrib, apparently the oviposition site on the upper surface of the leaf. The mine is confined to the upper side of the thick dense leaf, being invisible from the lower surface. It is serpentine, sometimes taking abrupt bends, and gradually increases in width, though under a lens the width is uneven. Often the later stages of the mine follow the leaf margin and it is common for a mine to cross the track of another. The terminal part of the mine becomes bulbous, in the centre of which lies the puparium. An emergence hole is revealed by an inconspicuous tiny slit in the upper leaf epidermis. The typical total length of a mine is about 4cm, shorter ones generally having failed to complete development.

Fig. 1. Mines of *Phytomyza hellebori* Kaltenbach in a pinnule of *Helleborus foetidus* showing a mine crossing that of another. The mines begin a short distance from the midrib, though in other examples the mines start adjacent to the midrib. Peterborough garden.

The mines were only in the dark green over-wintering leaves. They were obvious once tuned to look for them, but many were not especially conspicuous and in the winter merge with the patchy browning process as the leaves developed signs of over-maturity. The degree of infestation varied between plants, from very low to about 20 per cent. leaf area on mature flowering plants, but any late summer flush of paler green leaves or juvenile plants were largely free of attack. By late February, many of the mines had become inconspicuous. In dried leaves the mines fade and become hard to detect.

Hence it seems likely that the main flourish of new mines is when the younger leaves mature to dark green in the summer, and that the main emergence of one or more generations is before winter. However, a few mines had larvae, and puparia that had not hatched in fresh looking mines, so it seems probable that the breeding cycle may be continuous, at least in a mild winter.

Several non-native species of *Helleborus* occur in the garden. A few possible traces of aborted mines were found on leaves of *H. orientalis*, but they could reflect earlier damage and decay. *H. argutifolius* (ex *corsicus*), a particularly robust species, seems immune, as also its hybrid with *lividus*, = X *sternii*. A close neighbour has some *H. niger* without infestation, whilst her *H. foetidus* had many mines. Though the Hering Collection contains plant material from various *Helleborus* species, only in a leaf of *H. foetidus* were the mines fully developed and clearly the same as my own.

One purpose of exhibiting the mines so promptly was to encourage a few other entomologists to look in their home district. Andrew Halstead checked his mother's garden at Royston, Hertfordshire (TL 348408, V.C. Cambridgeshire), and found the mines on 29 January 2000, and then at the RHS Garden, Wisley (TQ 063581, Surrey) on 4 February. In both cases the mines were on *Helleborus foetidus*, at Royston with up to 50 per cent. leaf area attacked on some plants. At Wisley there seemed to be no sign of attack on other *Helleborus* species. Andrew collected mines at both sites and reared adults and many chalcid parasites from both samples; mines from Wisley collected on 7 February produced adults on 24 February and those from Royston collected on 28 February produced adults from 11 March onwards. These flies were of wing length 2.4-2.8mm; the following description was provided by Andrew Halstead:

Head white with occiput and ocellar triangle black, frons yellowish brown; antenna black with a square segment 3 (first flagellomere), arista black and densely covered with short hairs. Thorax with upper surface black with uniform greyish dusting; scutellum mostly creamy white with greyish black side margins; humeral area (postpronotum) white with a darker central portion; pleura dark with paler areas, more extensively so in male. Veins at wing base white, otherwise dark. Haltere white. Legs with yellowish grey femora and tibiae, tarsi black. Abdomen with tergites blackish brown with pale apical margin on segment 5 (more evident in female); side margins of tergites white and sternites mostly dark. Female oviscape black.

P. hellebori can be identified from Spencer (1976), who recorded it from Finland and stated that it was local but not uncommon in central Europe. He figured the aedeagus and indicated a close relationship with other species on Ranunculaceae, especially *P. anemones* Hering (on *Anemone nemorosa*) to which it runs in Spencer (1972) and *P. fallaciosa* Brischke (on *Ranunculus* species). The only external differences indicated in his keys (1976) are in the colour of the femora, mainly black in *fallaciosa*, with grey markings in *anemones* and said to be more distinctly yellow in *hellebori*. Spencer (1990) also figured the aedeagus of the two latter species; a British male has been dissected and agrees exactly with Spencer's figure of *hellebori*.

Helleborus foetidus is regarded as native in only a very few highly localised parts of England and Wales. One such area is the woods on the North Downs to the south of Wisley, Surrey. The only other native British species is *H. viridis* which is somewhat more widespread,

but this does not have overwintering leaves so may be unsuitable for the life cycle of the fly, a matter still to be clarified.

Formerly *H. foetidus* was treated as native to the west of Peterborough (Perring and Walters 1962). Thus on 20 February, a visit was made to Bedford Purlieus, lying 15km west of my garden. Much of this large, mainly coppice woodland, lacks *H. foetidus*, but exploration of the northern half revealed two flowering plants in the north-west (TL 041004) which lacked mines. These were in c.30 year old thinned beech (*Fagus*) plantation and by following this belt eastwards, a few more plants were found, including a couple of leaf mines. On reaching the north-western part of the wood (TL 045003, V.C. 32), a substantial number of plants were discovered. Here leaf mines were plentiful on robust flowering plants, especially where the beech canopy was incomplete, whilst juvenile plants, even if quite large, virtually lacked mines. In this woodland setting, the leaves were fresher-looking than in my garden and the mines extremely conspicuous. The Northamptonshire flora (Gent *et al.* 1995) has a the map showing eleven 5km squares for *H. foetidus*, the text saying very rare but particularly Bedford Purlieus. A recent atlas map (Stewart *et al.* 1994) shows the plant to be very widespread in the East Midlands and East Anglia, but all now interpreted as introductions.

The plant has been widely introduced, fostered by their ready availability from garden centres. On 20 February a large garden centre was visited on the outskirts of Peterborough. A stock of various hellebores, including non-flowering *H. foetidus*, lacked mines. The plant label gave the source as a nursery in Essex, but importation from Holland remains possible, and chemical spraying cannot be ruled out. The main chance of spread of the fly would be via more mature plants, in which mines are far more prevalent, unless the fly disperses readily.

It seems highly probable that *Phytomyza hellebori* is already very widespread by now, though slides of ideal *H. foetidus* taken at Broughton House, near Kettering (SP 9081, V.C. 32) in the late 1980s, reveal only pristine leaves.

Acknowledgements

My thanks are passed to Andrew Halstead and Peter Chandler for their information.

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Rare and uncommon Craneflies (Diptera, Tipulidae and Limoniidae) recorded in 1999 - All records were made by the author except where stated.

Ctenophora flaveolata (Fabricius). I beat a male from hawthorn (*Crataegus*) blossom at Greenford Bottom, New Forest, S. Hampshire (SU 1807) on 22.v.1999. Nearby in Pinnick Wood, a single gravid female of *Dictenidia bimaculata* (Linnaeus) was found on a dead beech *(Fagus sylvatica)* stump by Roger Booth.

Ctenophora pectinicornis (Linnaeus). Roger Booth collected a gravid female inside a rot hole on a beech tree in Park Ground Enclosure, New Forest (SU 3106) on 21.v.1999.

Nephrotoma guestfalica (Westhoff). A female flying to MV light at Haweswater Beck, Bampton, Westmorland (NY 5117), on 9.vii.1999, appears to be only the second record from Cumbria as Alan Stubbs took it at Sandscale Haws, Furness (SD 201755) (V.C. 69b) on 16.vi.1999.

Tipula couckei Tonnoir. This local species was swept from a small shingle bar beside Haweswater Beck on 7.vii.1999.

Nephrotoma scurra (Meigen). Wan Fell, Cumberland (NY 5136). A male was swept on 9.vii.1999 from dry *Calluna* heathland on the Permian Sandstone. This also appears to be new for Cumbria, where dry 'lowland' heath is rare, Wan Fell being a fine exception

Tanyptera atrata (Linnaeus). At least 15 adults, including pairs *in copula* were flying around birch (*Betula*) log piles left after scrub clearance in the winter of 1997/8 on Bartley Heath, N. Hampshire (SU 7253-7353) on 20.v.1999. All the males seen (c. 10) were of the orange bodied form.

Tanyptera nigricornis (Meigen). I swept a female from a grassy verge in Holmsley Inclosure, New Forest (SU 2200) on 2 v.1999. *Dolichopeza albipes* (Stroem) was 'ghosting' under shady overhangs along an adjacent stream on the same date.

Dolichopeza albipes (Stroem). At Burrowstone Moor, Roxburghshire (NY 4187), this was present on an eroded peat bank overhung by moorland turf, undercut by a swift flowing stream crossing open treeless moorland on 8.vii.1999.

Tipula marginella Theowald (RDB3). At Greywell Moors, N. Hampshire (SU 7251), this was numerous on open fen especially where peaty mud was exposed by disturbance including trampling by cattle, v-vi.1999.

Tipula maxima Poda. At Stangrah Quarry, Cumberland (SD 1185), a female was found on an exposed seepage in a disused sandpit, remote from woodland, on 25.v.1999; a male *Tabanus sudeticus* Zeller (Tabanidae) was also present on 6.vii.1999.

Tipula cheethami Edwards. On 27.v.1999, I found a pair sheltering beneath a rock overhang, covered in damp moss under a side cascade of Wainwath Force in Swaledale, Yorkshire (SD 8701), with a female *Pedicia rivosa* (Linnaeus)

Prionocera pubescens Loew. The population of this RDB2 species on Shortheath Common, Hampshire (SU 7736) was clearly thriving in 1999, with many adults flying over open *Sphagnum/Vaccinium* bog fringed by *Salix* carr, on 12.v.1999.

Hexatoma fuscipennis (Curtis). This species was locally abundant on sandy banks at the margins of the River Wey between Tilford Bridge and Thundry Meadows (SU 84) in v.1999. Adults have the habit of crawling around on bare sand like a harvestman (Arachnida, Opiliones). Alan Stubbs first recorded this primarily northern species, downstream at Charterhouse, Somerset (SU 9544) on 24.v.1969 – **JONTY DENTON,** 2 Sandown Close, Alton, Hants, GU34 2TG

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New species, additions and possible deletions to British *Lonchaea* Fallén (Diptera, Lonchaeidae)

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Summary
Problems in identifying reared and trapped *Lonchaea* led to the recognition of 11 additional British species, 10 of which are dealt with in this paper. Three new species confused with *L. laticornis* Meigen and one new species confused with *L. hirticeps* Zetterstedt are described. The occurrence in Britain of *L. laticornis* and *L. hirticeps* requires confirmation if they are not to be deleted from the British list.

Introduction

Over the past ten years the Malloch Society, including the authors, has studied saproxylic Diptera in Scotland, with an emphasis on finding and rearing early stages (Rotheray *et al.* 2000). We obtained over 500 reared and Malaise trapped Lonchaeidae during this study. However, in attempting to identify this material using keys and descriptions in Collin (1953), Hackman (1956) and Morge (1963) we encountered numerous difficulties. In resolving these difficulties we discovered three new species confused under *L. laticornis* Meigen and one new species confused under *L. hirticeps* Zetterstedt. In addition we found seven species new to Britain of which four (*L. caucasica* Kovalev 1974; *L. hackmani* Kovalev 1981; *L. ragnari* Hackman, 1956; *L. zetterstedti* Becker 1902) were included by Chandler (1998) in the new Diptera checklist and one, *L. affinis* Malloch 1920, was formally added by MacGowan and Rotheray (1999). In this paper we describe the four new species, give full details of the four additions mentioned by Chandler (1998) and details of two more, and suggest that *L. hirticeps* and *L. laticornis* Meigen require confirmation if they are not to be deleted from the British list.

Morphological terms and nomenclature follow Collin (1953), Hackman (1956) and Morge (1963). Where possible, male and female genitalia were studied using recently caught or reared specimens. The tip of the abdomen was cut off and placed in KOH overnight. The genitalia were separated from these preparations and placed in 70 per cent. alcohol for drawing and examination with a binocular microscope. Drawings were made with a drawing tube attached to the microscope. Unless stated otherwise, all type and other material is deposited in the National Museums of Scotland (NMS).

The identity of *Lonchaea hirticeps* Zetterstedt 1838

In his key to the Lonchaeidae of Britain, Collin (1953) characterised *Lonchaea hirticeps* as a species with hairy eyes, widely spread oral bristles on the front part of the jowls and entirely dark tarsi. Collin (1953) found some discrepancies between the specimens he described and the original description of Zetterstedt stating that, "the species evidently requires further study based on more material". Although Collin (1953) illustrated the male genitalia of many of the species he studied he did not figure those of his *L. hirticeps*.

Hackman (1956) followed Collin (1953) and also considered *L. hirticeps* as a species with widely spread oral bristles but stated that: "until Zetterstedt's type specimen is re-examined the identity of *hirticeps* must remain somewhat obscure". Hackman (1956) also neglected to illustrate the male genitalia.

Finally, McAlpine (1958) examined the Zetterstedt types of *L. hirticeps*. He described the type as having oral bristles arranged in a single row along the mouth-edge and illustrated the male genitalia in which the surstylus extends ventrally as a relatively large, blunt and toothed process. We examined material studied by both Collin (1953) and Hackman (1956), borrowed from the Oxford University Museum of Natural History (OXUM) and the Finnish Museum of Natural History, Helsinki (FMNH) respectively, and compared it with our reared material similar to *hirticeps* of Collin. We found that our reared material and the *hirticeps* of both Collin and Hackman has widely spread oral bristles and the male genitalia differ in the shape of the surstylus and aedeagus from those of *L. hirticeps* Zetterstedt. Thus an unrecognised species exists closely related to *hirticeps* Zetterstedt. Collin (1953) noted variation in number of the stigmatical bristles in his females; however, from examination of the hairs on the ovipositor it is clear they belong to the same unrecognised species. This unrecognised species is described here. All British material we have examined under the name *hirticeps* has been misidentifed and we have not been able to confirm the occurrence of *L. hirticeps* Zetterstedt in Britain.

***Lonchaea fraxina* sp. n.**

Type material: **Holotype** male. SCOTLAND: Wester Ross, Rassal Ashwood, NG 8443, 25.iv.1997, taken on fallen *Fraxinus excelsior* trunk, I. MacGowan (NMS).

Paratypes. SCOTLAND (Malloch Society, unless otherwise stated): 1 male, Wester Ross, Rassal Ashwood, v.1991, caught in Malaise trap, P. Brown; 1 male, Wester Ross, Rassal Ashwood, 25.iv.1997, on fallen *Fraxinus* trunk; 5 females, Inverness-shire, Dores, iv.1995, puparia between bark and sapwood of fallen *Fraxinus*; 4 males, 3 females, Perthshire, Den of Riechip, iv.1997, puparia between bark and sapwood of fallen *Fraxinus*; 1 female, Perthshire, Den of Alyth, v.1995, puparium between bark and sapwood of fallen *Fraxinus*; 1 female, Perthshire, Rotmell, iv.1998, puparium between bark and sapwood of fallen *Fraxinus*; 1 male, Clackmannan, Woodhill, Alva, iv.1998, puparium between bark and sapwood of fallen *Fraxinus*.

Additional material. SCOTLAND: 3 females, Nairn, Dulsie Bridge, 25.v.1991, I. Perry. WALES: 2 males, Glamorgan, Gower, Oxwich, 16.vi.1955, E.C.M. d'Assis-Fonseca. ENGLAND: 1 male, Hampshire, Farley Mount, 14.vi.1996, I. Perry. FINLAND: 1 female, Saltvik, R. Frey (FMNH). FRANCE: 3 females, Brout Vernet, 5.v.1917, H. du Buyson (Muséum National d'Histoire Naturelle, Paris, MNHN). NETHERLANDS: 1 male, Groningen, v.1890, (Zoölogisch Museum, Amsterdam, ZMA). SPAIN: 1 male, Barcelona, 4.iv.1987, M. Carles-Tolra.

Etymology. The species is named after the host tree, *Fraxinus excelsior*, from which all reared material was obtained.

Male (holotype). Eyes covered in long dense brownish hairs these greater in length than half depth of antennal segment 3. Frons wide, between antennae almost as wide as antennal segment 3 is deep, narrowing only slightly from the width at the level of the orbital bristles. Entire frons covered in long black hairs which are almost as long and strong as the orbital bristles. Face below antennae widening greatly, a central median keel present with lateral raised keels defining the edge of the face. Jowls wide, as wide as depth of antennal segment 3, covered in long, dense black hairs. Palpi fringed with long black hairs. Antennae entirely black, rather quadrate, segment 3 breadth 70 per cent. of length. Arista almost bare and rather short, less than 1.5 x as long as antennal segment 3. Disc of thorax covered in long, dense black hairs almost as long as the bristles in the prescutellar area. Pleura also covered in long black hairs making it difficult to

distinguish the pleural bristles. One propleural bristle and a group of four stigmatical bristles. Halteres black, squamae dark grey with a black edge, squamal hairs black and dense. Stigmal section of wing 4 times as long as crossvein r-m. Abdomen with long black hairs, disc of all tergites dulled by dusting. Legs including all tarsi black. Fore and mid femora with long, black posterior hairs, these twice the depth of the femora. Hind femora shorter haired posteriorly.

Male terminalia. Epandrium rather square, cerci projecting as a rounded and well haired lobe. Posteroventral projection of surstylus extending well beyond epandrial margin with a projecting rounded process arising from a broader more flattened basal area which is usually just visible projecting above the epandrial margin. Aedeagus two segmented, apical part sinuous but relatively short and broad (Figs 1, 2)

Female. Similar but has shorter hairs on thorax and body. Apical section of ovipositor in dorsal aspect twice as long as wide, dorsal surface at base with two long bristles which are approximately the length of the apical segment, another pair of shorter bristles mid way along the segment. Apex with approximately 10 pairs of hairs, mostly short but with one longer pair about half length of apical segment dorsally and ventrally. Ventral surface with 3 pairs of longer hairs (Figs 9, 10).

The identity of *Lonchaea laticornis* Meigen, 1826

In attempts to identify our reared material, we discovered that *laticornis* Meigen does not seem to occur in Britain. Instead, three unrecognised species exist confused under that name.

Hackman (1956) described what he considered was the *laticornis* of Meigen; he illustrated the male genitalia and noted that it was a species associated with conifers. He considered it conspecific with the *laticornis* of Collin (1953), although the male genitalia illustrated by Hackman (1956) are very different from those in Collin (1953). In Scotland, we reared material similar to *laticornis* of both Hackman (1956) and Collin (1953). We compared our specimens with their original material, and the type specimen of *laticornis* Meigen, a female borrowed from the Muséum National d'Histoire Naturelle, Paris. We found that neither the *laticornis* of Hackman or Collin are the *laticornis* of Meigen and that both are separate species on various adult characters including male and female genitalia. In particular, female *laticornis* of Hackman differ from *laticornis* Meigen by not having tarsomere 3 entirely yellow, the third antennal segment is differently shaped with straight parallel sides, usually with yellow coloration at the base (Figs 17, 18). In addition the ovipositor has a brush of fine hairs, at the tip of the apical segment, which is absent in *laticornis* Meigen (Figs 11, 12).

Female *laticornis* of Collin (= *mallochi* sp. n.) differ from *laticornis* Meigen and from *laticornis* of Hackman (= *caledonica* sp. n.) by not having the third tarsal segment entirely yellow; the third antennal segment is differently shaped with, in lateral view, the dorsal edge straight not convex and either lacking an orange marking or only a small one present (Figs 17, 18, 19). The colour, size and arrangement of hairs on the apical segment of the ovipositor also differs, with pairs of even-sized hairs present and lack of a brush (Figs 13, 14). Also in *mallochi* sp. n. two, or rarely three, bristles are present between the apical scutellar bristles whilst in *laticornis* Meigen there are four.

Furthermore, another species similar to the above was reared from Buckinghamshire. This material differed from *caledonica* sp. n. and *mallochi* sp. n. in characters of the male genitalia. Females differed from *laticornis* Meigen in various characters. For example the metatarsi, tarsomere 2 and rarely, the base of tarsomere 3 are yellow, whereas in *laticornis* Meigen the metatarsi, tarsomere 2 and tarsomere 3 are all clear yellow. The third antennal segment in profile has the dorsal edge straight and has an obtuse tip but in *laticornis* Meigen this segment is deeper and more rounded at the tip with a curved dorsal surface (Figs 17, 20). Also

the hairs on the apical segment of the ovipositor are yellow or straw coloured in contrast to the black hairs of *laticornis* Meigen. Thus three unrecognised species similar to *laticornis* Meigen occur in Britain. All material examined under the name *laticornis* Meigen in collections at the Natural History Museum, London, the Oxford University Museum of Natural History and the National Museums of Scotland were one of these three species and the existence of *laticornis* Meigen in Britain has yet to be confirmed.

***Lonchaea caledonica* sp. n.**

= *laticornis* sensu Hackman (1956)

Type material: **Holotype** male. SCOTLAND: Nairn, Ardclach, NG 9545, 8.vi.1996, reared from larva found between bark and sapwood of fallen *Pinus sylvestris*, I. MacGowan (NMS).

Paratypes. SCOTLAND (Malloch Society): 1 female, Nairn, Outlawell, 9.vi.1996 from larva found between bark and sapwood of fallen *Pinus*; 2 males, Inverness-shire, Abernethy, 9.vi.1996 from larvae between bark and sapwood of fallen *Pinus*; 1 adult male, Nairn, Ardclach; 1 male, Nairn, Culbin Forest, vi.1993, from larva between bark and sapwood of fallen *Pinus*; 1 female, Inverness-shire, Glen Affric, 18.v.1996, from larva between bark and sapwood of fallen *Pinus*; 1 female, Perthshire, Methven Woods, vi.1996, from larva between bark and sapwood of fallen *Pinus*; 2 females, Perthshire, Meikelour, North Wood, 14.vi.1996, from larvae between bark and sapwood of fallen *Pinus*.

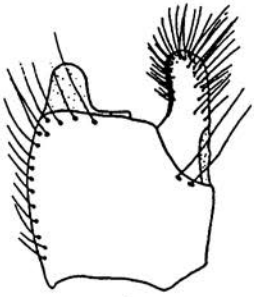
Additional material. FINLAND: 1 male, Espoo, ex puparium, M. Nuorteva (Hackman 1956, FMNH). NETHERLANDS: 2 males, Hilversum, J.C.H. de Meijere, v.1903 (ZMA).

Etymology

Named after the Caledonian pinewoods from within which larvae and puparia of many of the specimens were obtained.

Male (holotype). Eyes bare, hairs along mouth edge in a single row anteriorly. Antennae with segment 3 long, length 2.3 x breadth, overall colour black but with orange area at base extending along basal fifth ventrally. Frons with numerous black hairs, those in front of anterior orbital bristle at most only half the length of the bristle. No hairs on the orbital plates above the orbital bristle. Thoracic dorsum with rather long black hairs, these more than half the length of the anterior orbital bristle. Notopleural depression bare apart from the two bristles. One stigmatical and one propleural bristle. On one side of thorax no hairs behind single strong sternopleural bristle, but on other side two scutellar bristles are present with one hair behind (comparison with the paratypes shows two sternopleurals to be an exceptional case). Scutellum without hairs on disc, two hairs between apical scutellar bristles and four on each side between apical and lateral bristles. No hairs anterior to lateral pairs. Squamal fringes black. Stigmal section of wing just over twice length of r-m. Legs dorsally with only metatarsus and tarsomere 2 yellow although mid and hind legs have a bare yellow ventral stripe extending on to tarsomere 3 and tarsomere 4.

Figs 1-8. Male genitalia. 1-2, *L. fraxina* sp. n. 1, right lateral view of male epandrium and associated structures; 2, lateral view of aedeagus; 3-4, *L. caledonica* sp. n. 3, right lateral view of male epandrium and associated structures; 4, lateral view of aedeagus; 5-6, *L. mallochi* sp. n. 5, right lateral view of male epandrium and associated structures; 6, lateral view of aedeagus; 7-8, *L. serrata* sp. n. 7, right lateral view of male epandrium and associated structures; 8, lateral view of aedeagus.



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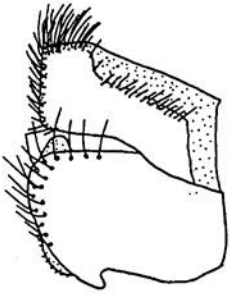

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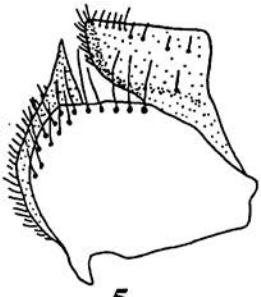

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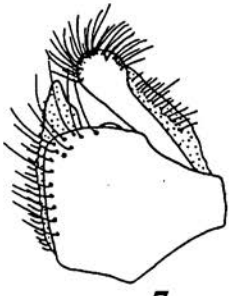

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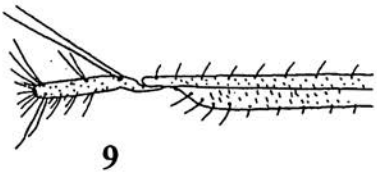

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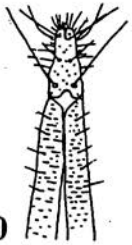

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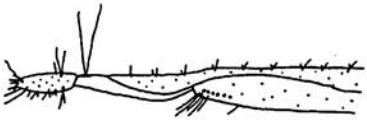

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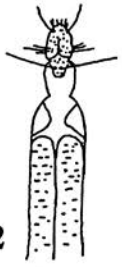

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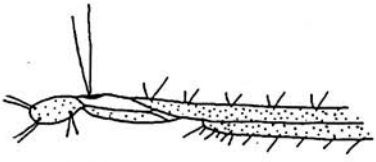

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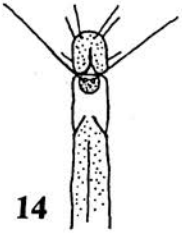

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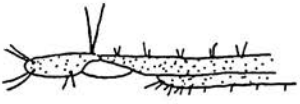

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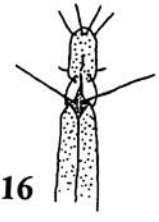

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Male terminalia. Epandrium broader than tall, cerci massive and rectangular in shape, almost the same size as the epandrium itself, with a group of long curved hairs at the tip. Posteroventral projection of surstylus bluntly rounded and projecting only slightly beyond epandrial margin. Surstylus ventrally slightly projecting beyond epandrial margin. Aedeagus two segmented, the apical section sinuous with a broadened base (Figs 3, 4).

Female. As in male but with overall pilosity shorter and yellow colour on antennal segment 3 more extensive, antennal segment 3 parallel sided (Fig. 18). Four hairs between apical scutellar bristles and no hairs behind the single strong sternopleural. Ovipositor (drawn from a fresh specimen) with tergite 8 extending beyond sternite 8 by a distance greater than the length of the apical segment. In lateral view junction of tergite and sternite 8 rather sinuous. Connective tissue extending from tip of sternite 8 to apical segment. Apical segment separated by connective tissue from tip of tergite 8 by a distance equal to half the length of the apical segment, apical segment in lateral view with length slightly more than twice depth. Sub-basal hairs strong, as long as apical segment, apical segment rather short haired but with a large number of short hairs at tip and on ventral surface giving it a rather brush-like appearance (Figs 11, 12).

***Lonchaea mallochi* sp. n.**

= *laticornis* sensu Collin (1953)

Type material: **Holotype** male. SCOTLAND: Fife, Balmerino, NO 3524, 2.v.1997, reared from puparium found under bark of fallen *Fraxinus*, I. MacGowan (NMS).

Paratypes. SCOTLAND (Malloch Society, unless otherwise stated): 1 female, Perthshire, Craighall Gorge, 26.v.1997, puparium under bark of fallen *Quercus*; 4 females, Perthshire, Fungarth Wood, 26.ii.1997, larvae under bark of fallen *Betula*; 1 female, Wester Ross, Rassal Ashwood, v.1991 caught in Malaise trap, P. Brown; 1 female, Stirlingshire, Loch Lomond, v.1996 puparium under bark of fallen *Quercus*; 2 females, Perthshire, Balnaguard, 20.iii.1997 puparia under bark of fallen *Quercus;* 1 male, Midlothian, Arniston, 22.v.1993 puparium under bark of fallen *Fagus*; 1 female, Midlothian, Arniston, 22.v.1994 puparium under bark of fallen *Quercus*; 2 females, Inverness-shire, Kincraig, 13.iv.1997, puparia under bark of fallen *Alnus* and *Betula*; 1 female, Stirlingshire, Brig of Turk, vi.1996, puparium under bark of fallen *Quercus;* 1 female, Perthshire, Methven Wood, 1.viii.1997, puparium under bark of fallen *Fagus*; 1 female, Inverness-shire, Craigellachie, 13.iv.1997, puparium under bark of fallen *Betula;* 2 females, Perthshire, Kinfauns, 24.vii.1997, on *Fagus* logs; 4 males, 2 females, Inverness-shire, Dores, 6.v.1997, under bark of fallen *Fraxinus*; 1 female, Perthshire, Dalcrue, 18.vi.1997, under bark of fallen *Fraxinus*; 1 female, Nairn, Cawdor, 18.v.1997, under bark of fallen *Quercus*; 1 female, Dundee, Camperdown Park, 10.vi.1995, under bark of fallen *Fagus*; 1 female, Perthshire, Birnam, vi.1996, under bark of fallen *Quercus*; 1 female, Inverness-shire, Kincraig, 13.iv.1997, under bark of fallen *Alnus*. ENGLAND: 1 male, Hampshire, Odiham Common, 3.v.1997, puparium under bark of fallen *Acer*; 1 male, 4 females, Buckinghamshire, Burnham Beeches, 30.vi.1997, puparia under bark of fallen *Fagus*; 2 females, Buckinghamshire, Burnham Beeches, 31.vi.1997, puparia under bark of fallen *Fagus*.

Figs 9-16. Female ovipositors. 9-10, *L. fraxina* sp. n. 9, lateral view; 10, dorsal view; 11-12, *L. caledonica* sp. n. 11, lateral view; 12, dorsal view; 13-14, *L. mallochi* sp. n. 13, lateral view; 14, dorsal view; 15-16, *L. serrata* sp. n. 15, lateral view; 16, dorsal view.

Additional material. FRANCE: 1 female, Côte-d'Or, Bois des Suchaux, 28.iv.1977, bred from puparium found under bark of *Fraxinus*, J. Barbier (MNHM). NETHERLANDS: 1 male, Nederland, no date, J.C.H. de Meijere; 1 male, Hilversum, v.1903; 1 male, Hilversum, no date, J.C.H. de Meijere; 2 males, Hilversum, v.1912, J.C.H. de Meijere; 1 male Nunspeet, 20.v.1977, R.T. Simon Thomas; 1 female, Nunspeet, 7.vii.1977, R.T. Simon Thomas (ZMA). SPAIN: 1 female, Zaragoza, Pina de Ebro, Retuerta de Pina, 12.vi.1993, J. Blasco Zumeta; 1 female, Barcelona, Cabrils, 28.vi.1999, M. Carles-Tolra.

Etymology. Named after J. R. Malloch, the Scottish dipterist who was the inspiration behind the foundation of the Malloch Society.

Male (holotype). Eyes bare, hairs on jowls confined to a uniserial row along the mouth-edge. Antennae all black with segment 3 very long, length equal to three times breadth, narrow with parallel dorsal and ventral edges. Hairs in front of anterior orbital bristle short, not more than half the length of the bristle. No hairs on orbital plates between orbital bristles. Hairs on thoracic dorsum short, not more than half length of anterior orbital bristle. Notopleural depression bare apart from the two bristles. Squamal fringes dark. Stigmal section of wing just over twice length of crossvein r-m. Disc of scutellum bare, two hairs between apical bristles, three on each side between apical and lateral bristles, no hairs anterior to lateral bristles. Only one stigmatical and one propleural bristle. No hairs behind single strong sternopleural bristle. Legs with metatarsus clear yellow, on fore legs tarsomere 2 only obscurely yellow, other segments black; mid and hind metatarsi and tarsomere 2 dorsally yellow, ventrally with bare yellow stripe extending to tarsomere 4.

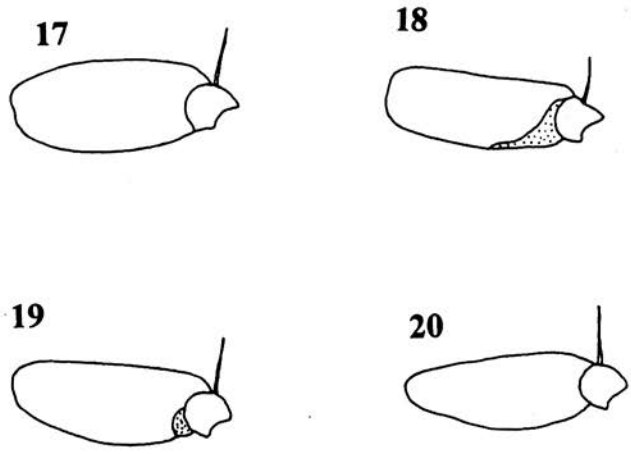
Male terminalia. Epandrium slightly broader than deep. Cerci large and rather sparsely haired. Posteroventral projection of surstylus extending as a pointed, triangular process beyond the margins of the epandrium. Surstylus often visible ventrally beyond epandrial margin. Aedeagus jointed, apical portion with a characteristically angular appearance (Figs 6, 7). The male genitalia are drawn from a fresh specimen and therefore present a slightly different appearance to those illustrated in Collin (1953).

Female. As in male but generally shorter haired. Antennal segment 3 very long and parallel sided, orange at base ventrally (Fig. 19). Sternopleural bristle may have one hair behind. Ovipositor (drawn from a fresh specimen) with tergite 8 extending beyond sternite 8, the junction between tergite and sternite straight in lateral view. Sternite 8 apparently divided with an additional sclerotised section supporting the connective tissue, which extends from the apex of tergite and sternite 8 to the apical segment. Apical segment separated by connective tissue from tip of tergite 8 by at least the length of the apical segment. Apical segment short, length less than twice the depth in lateral view, with rather rounded tip. Dorsal sub-basal hairs very long and rather fine, longer than the apical segment, which has two long hairs at tip dorsally, ventrally long pair at tip with shorter pair half way along lower surface (Figs 13, 14).

***Lonchaea serrata* sp. n.**

Type material: **Holotype** male. ENGLAND: Buckinghamshire, Ashridge, SU 9711, 22.iv.1998, reared from puparium found in softened sapwood of *Fagus* log, G.E. Rotheray (NMS).

Paratypes. ENGLAND: 1 female, Buckinghamshire, Ashridge, 22.iv.1998, puparium in softened sapwood of *Fagus* log (NMS); Burnham Beeches, 1 male, 1 female 22.iv.1998 and 20.iv.1998 respectively, under bark of fallen *Fagus*; 2 females, 23.iv.1998, under bark of fallen *Salix*, G.E. Rotheray.



Figs 17-20. Female antennae, inside lateral view (arista not illustrated). 17, *L. laticornis* (holotype); 18, *L. caledonica* shaded area = extent of yellow coloration; 19, *L. mallochi* shaded area = extent of yellow coloration; 20, *L. serrata*.

Additional material. ENGLAND: 1 male, Hampshire, New Forest, Wood Crates, 8.vi.1986, adult taken on *Fagus* trunk, P.J. Chandler; 1 male, Surrey, Gracious Pond, 18.iii.1978, adult emerged 9.v.1978, P.J. Chandler; 8 females, Buckinghamshire, Burnham Beeches, 1996, from Malaise traps, J. Ismay.

Etymology. Named after the obviously serrated inner edge of the surstylus which characterises this species.

Male (holotype). Eyes bare. Approximately 7 hairs in a single line along the mouth-edge. Antennae with all segments black. Antennal segment 3 long and narrow, breadth 42 per cent. of length, reaching to level of mouth-edge, dorsal edge in lateral view flat not curved, tip somewhat obtuse. Arista with microscopic hairing. Lunule with nine hairs. Frons narrow, reducing from 19 per cent. of head width at level of orbital bristles to 13 per cent. at narrowest point above the

antennae. The frons is dusted and covered with many long hairs, most more than half as long as length of orbital bristles. No hairs on shining orbital plates above the orbital bristle. Thoracic disc shining, covered in long black hairs, no hairs in notopleural depression, 1 stigmatical and 1 propleural bristle. 4 strong bristles on posterior edge of mesopleura standing out from the surrounding hairs. 1 strong sternopleural bristle with 2-3 hairs posterior to it. Halteres black. Disc of scutellum bare, edge with 4 setaceous hairs between strong apical bristles, 5-6 hairs between apical and lateral bristles, no hairs anterior to lateral bristles. Squamae grey with a fringe of black hairs. Wing with stigmal section just over twice as long as crossvein r-m. All legs black apart from metatarsus and tarsomere 1 yellow, tarsomere 2 yellow ventrally but darkened dorsally.

Male terminalia. Epandrium rather square. Cerci rather elongate with a sclerotised club-shaped lower portion with long hairs at tip and an upper membranous area. Ventral edge of surstylus with marked serrations at tip, posteroventral projections extending as an irregularly shaped triangular process, a small inner process is just visible. Aedeagus two segmented, apical part sinuous, not angular as in *L. mallochi* and more slender in its basal portion than *L. caledonica* (Figs 7, 8).

Female. As in male but shorter haired. Antennal segment 3 with straight dorsal surface and rounded beneath with rather obtuse tip (Fig. 20). Three hairs between apical scutellar bristles, three on both sides between apical and laterals, hair may be present behind sternopleural, frons with hairs in front of orbital bristle only about one third as long as bristle. Fore, mid and hind tarsi dorsally with only metatarsus and tarsomere 2 yellow. Female ovipositor (drawn from fresh specimen) with tergite 8 extending past sternite 8 for a distance equal to length of apical segment, in lateral view junction between tergite 8 and sternite 8 straight. In lateral view apical segment very closely approximated to tip of tergite 8, connective tissue much reduced only forming a short bridge ventrally between tip of tergite 8 and apical segment and not reaching the tip of sternite 8. Tergite and sternite 8 pale; apical segment with two very strong sub-basal hairs dorsally, these not longer than apical segment; two hairs dorsally at tip, a longer pair ventrally below at tip and a tiny pair half way along the ventral surface (Figs 15, 16).

Other additions to the British fauna of *Lonchaea* Fallén

***Lonchaea albitarsis* Zetterstedt, 1837**

New to Britain. This species is known with certainty only from Finland, Sweden and north-west Russia (Kovalev and Morge 1984). It is similar to *L. affinis* Malloch and *L. obscuritarsis* Collin (McAlpine 1958). It differs from *L. affinis* in having hairs on the disc of the scutellum and from *L. obscuritarsis* in having more than one stigmatical bristle. We dissected and compared male genitalia of two *L. albitarsis* males listed by Hackman (1956) (Finstrom, Godby, 12.vi.1906, R. Frey det. L. Czerny) and they were identical to the male genitalia of a male trapped from Scotland. The pattern of hairs on the ovipositor of the Scottish females is identical to those illustrated for this species by McAlpine (1958).

Material examined. SCOTLAND: 1 male, 2 females, Wester Ross, Rassal Ashwood, v.1991 and 2 females, v.1992, all from Malaise traps, P. Brown (NMS).

***Lonchaea caucasica* Kovalev 1974**

New to Britain (Chandler 1998). This species was previously only known from the north-west Caucasus in Russia (Kovalev 1974; Kovalev and Morge 1984). It is similar to *Lonchaea limatula* Collin but differs in the structure of the aedeagus. In particular, the aedeagus is narrow and only has serrations on the basal third. In *L. limatula* the aedeagus is much broader, almost bulbous, with serrations along most of its length (Kovalev 1974). The type series of *L. limatula* in the Oxford University Museum of Natural History, which is based on British material, includes both *limatula* and *caucasica* (Chandler 1998).

Material examined. SCOTLAND (Malloch Society, unless stated otherwise): 3 males, 1 female, Easter Ross, Braelangwell Wood, 18.v.1997, from puparia found in soft decayed sapwood of a *Betula* log; 1 adult male, Perthshire, Taymouth Woods, 18.vi.1995, on *Fagus* snag. ENGLAND: 1 male, Berkshire, Windsor Forest, 15.v.1988, P.J. Chandler.

***Lonchaea contraria* Czerny, 1934**

New to Britain. This species is quite widespread from Russia, Poland, Germany, Romania, Hungary, Czech Republic and Austria (Kovalev and Morge 1984). Hennig (1948) considered *L. contraria* to be a dark-legged form of *L. scutellaris* Rondani because the male genitalia were similar. However Kovalev (1984), revising species of this group, discovered that the male genitalia were different in having the epandrium proportionally longer than in *L. scutellaris* with the aedeagus only extending to one third the length of the ventral margins of the surstylus. The hairing on the female ovipositor also differs from that in *L. scutellaris*. As a result he lifted *contraria* out of synonymy. Dissected males and females from England also show these differences. We have found additional differences between the puparia of *contraria* and *scutellaris*. In particular the projections associated with the posterior breathing tubes are square-shaped in apical view compared with being rounded in *scutellaris*.

Material examined. ENGLAND: 3 males, 2 females, Hampshire, New Forest, Wood Crates, 1.v.1997, reared from puparia found under bark of fallen *Fagus*; 1 female, Buckinghamshire, Burnham Beeches, 23.iv.1998, reared from puparium found under papery outer epidermis of bark of fallen *Betula*, G.E. Rotheray (NMS).

***Lonchaea hackmani* Kovalev, 1981**

New to Britain (Chandler 1998). This species is known from Russia and Finland (Kovalev 1981; Kovalev and Morge 1984). It is similar to *Lonchaea peregrina* Becker, with which it has previously been confused, but differs in the structure of the male genitalia. In particular, the epandrium is about as long as high but in *L. peregrina* it is much longer than high. In both sexes it differs from *L. peregrina* in the chaetotaxy on the scutellum and wing costa (Kovalev 1981).

Material examined. SCOTLAND (Malloch Society, unless otherwise stated): 1 male, Inverness-shire, Speybank, near Kincraig, 14.x.1989, from puparium found in bark of fallen *Populus tremula*; 2 males, 26.vi.1990, 1 male, 3 females, 2.vii.1990, 2 males, 3 females, 21.vii.1990, Inverness-shire, Dulicht near Grantown on Spey, all reared from puparia under bark of fallen *P. tremula*; 2 females, Wester Ross, Gairloch, 12.viii.1990 on fallen *P. tremula*; 1 female, Nairn, Dulsie Bridge, 19.viii.1990, on fallen *P. tremula*; 4 males, 1 female,

Aberdeenshire, Kinord, v.1995 reared from puparia under bark of *P. tremula* (NMS). ENGLAND: 1 male, Sandwell Valley, West Bromwich, M. Bloxham.

***Lonchaea ragnari* Hackman, 1956**

New to Britain (Chandler 1998). This species is known from Finland, Sweden and Russia (Hackman 1956; Kovalev and Morge 1984). It is similar to *L. hackmani* and *L. peregrina* in having pale squamal fringes and several stigmatical bristles but differs in having all the legs black apart from the hind metatarsi which are brownish. The male genitalia and female ovipositor are also distinct.

Material examined. SCOTLAND (Malloch Society, unless stated otherwise): 1 female, Perthshire, Fungarth Wood, v.1995 reared from puparium in fallen *Betula*; 1 female, Inverness-shire, Novar, 21.vii.1993; 1 female, Inverness-shire, Strathfarrar, 29.v.1993; 1 male, 3 females, 4 puparia, Perthshire, Tummel Bridge, 10.v.1998, puparia in decayed sapwood of fallen *Betula*; 4 males, 8 females, Perthshire, Fungarth Wood, 1.iv.1998 from puparia in decayed sapwood of fallen *Betula*; 2 females, Perthshire, Rannoch, 27.vii.1923, A.E.J. Carter; Midlothian, Miltonbridge, 1 female, 6.vi.1953, E.C. Pelham-Clinton (NMS).

***Lonchaea zetterstedti* Becker, 1902**

New to Britain (Chandler 1998). Collin (1953) included *Lonchaea zetterstedti* as a British species but this was a mis-identification for *collini* Hackman (Hackman 1956). The status and distribution of the true *zetterstedti* was reviewed by McAlpine and Morge (1970). It is a holarctic species and associated with conifers. It occurs in Canada, USA and Europe. In Europe, it is found in Scandinavia, the Alps and in Germany. However, neither McAlpine and Morge (1970) or Kovalev and Morge (1984) mention the species as occurring in Britain. We found it at several localities across Scotland where it was often associated with coniferous plantations. It is a distinctive species within the British fauna having pale tarsi, one stigmatical bristle and pale squamae. The aedeagus is relatively small and bent at the tip whilst the female ovipositor is characterised by having a pair of very long hairs dorsally at the base (McAlpine and Morge 1970).

Material examined. SCOTLAND (Malloch Society): 1 male 5 females, Dumfries-shire, Twiglees, 24.vi.1992, puparia under bark of an exotic conifer; 1 male 1 female, Aberdeenshire, Inver, v.1995, puparia found under the bark of fallen *Pinus*; 3 females, Inverness-shire, Loch Morlich, 24.iv.1997, puparia under bark of *Picea* stump; 1 female, Inverness-shire, Abernethy Forest Saw-Mill, 12.v.1997, puparium under bark of cut *Pinus*; 1 female, Perthshire, Craig Vinean, 9.vii.1997, adult on conifer log.

Acknowledgements

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Corrections and changes to the Diptera Checklist (3) - Editor

It is intended to publish here any corrections to the text of the recently published Diptera checklist (publication date was 13 November 1998; the final 'cut-off' date for included information was 17 June 1998) and to draw attention to any subsequent changes. All readers are therefore asked to inform me of any errors or changes and I would like to thank all those who have already brought these to my attention.

The latest volume of *Zoological Record* (1998-1999) has been consulted to ensure that changes affecting the British list could be considered for inclusion here.

In the notes below where names of genera and species are given as in the Checklist, authorship is not stated here. Corrections are in page order; changes are listed under families; names new to the British list are given in bold type.

The notes below refer to the loss of 2 names due to synonymy (indicated by *) and addition of 15 species, a net gain of 13 resulting in a new total of 6699 species. Potential deletion of two species of *Lonchaea* has yet to be confirmed.

Corrections

p. 51 The name *rheophilum* (Knoz, 1961 - *Odagmia*) should be added to the synonymy of *Simulium argyreatum*; it was the name used for this species in the previous checklist.

p. 181 The author of *Sarcophaga jacobsoni* and *S. portschinskyi* should be in parentheses. In both cases (Rohdendorf, 1937 - *Parasarcophaga*).

Changes

Mycetophilidae. Two synonymies stated as proposed "by Chandler (in preparation)" have been found to be incorrect:

Brevicornu fasciculatum was listed, with *arcticoides* in synonymy. Alexei Polevoi (*pers. comm.*) has concluded that *neofasciculatum* Zaitzev & Polevoi, 1995 (*Entomologica Fennica* **6,** 185-195) is a synonym of *fasciculatum* and that the figure of *fasciculatum* by Zaitzev (1986. [*Insects attacking fungi and wood in the European part of USSR*]. 307 pp. Moscow, Nauka) was misidentified and represents *arcticoides* Caspers. I was in error in regarding *arcticoides* as a synonym of *fasciculatum* and the British species should be known as ***arcticoides*** Caspers, 1985.

Dynatosoma abdominale, although close to *nigromaculatum* in genital structure, has been found by Jan Ševcik (*pers. comm.*) to differ in significant details, suggesting that they are different species and ***nigromaculatum*** Lundström, 1913 should replace *abdominale* on the British list.

Cecidomyiidae. *Macrolabis* ***rhodophila*** (Hardy, 1850 - *Cecidomyia*) is raised from nomen dubium status and recognised as the senior synonym of *M. luceti* in the present issue.

Rabdophaga ***strobilina*** (Bremi, 1847 - *Cecidomyia*) is established as a senior synonym of *R. rosaria* in the present issue.

Ceratopogonidae. *Culicoides* ***clastrieri*** Callot, Kremer & Deduit, 1962, belonging to subgenus *Oecacta*, was added by J. BOORMAN and P. RAWLINGS (2000. *Entomologist's monthly Magazine* **136,** 85).

Chironomidae. R. CONTRERAS-LICHTENBERG (1999. *Annalen des naturhistorischen Museum in Wien* **101B,** 359-403.), in a revision of the west Palaearctic species of *Glyptotendipes*, has synonymised the subgeneric name *Caulochironomus* with *Glyptotendipes* sensu stricto to which its included species are referred, while the name **PHYTOTENDIPES** Goetghebuer, 1937 is used for *Glyptotendipes* sensu stricto of the checklist.

Polypedilum convictum and *P. cultellatum* were transferred to subgenus **URESIPEDILUM** Sasa & Kikuchi, 1995 by E.A. OYEWO and O.A. SAETHER (1998. *Annals of Limnology* **34**(3), 315-362).

Dolichopodidae. A fuller account of the British and Irish records of *Micropygus vagans* was given by P.J. CHANDLER (1999. *British Journal of Entomology and Natural History* **12,** 215-220.

Phoridae. *Megaselia* ***wickenensis*** Disney, 2000 is added in the present issue

Syrphidae. C. CLAUSSEN and M.C.D. SPEIGHT (1999. *Volucella* **4,** 93-102) have synonymised *Cheilosia praecox* with ***urbana*** (Meigen, 1822 - *Syrphus*) as predicted in Note 5 of the checklist. The reintroduction of the name *urbana* is unaffected by the provisions of the new ICZN Code, which came into force on 1 January 2000, as publication was on 15 December 1999.

Pipunculidae. J. SKEVINGTON and S. MARSHALL (1998. *Systematics of New World Pipunculus (Diptera, Pipunculidae).* 1-201, Entomological Society of America, Lanham [Thomas Say Publications in Entomology: Monographs]) have synonymised *Pipunculus phaeton* with *P.* ***hertzogi*** Rapp, 1943.

Lonchaeidae. The following species of *Lonchaea* are added in the present issue:
Lonchaea ***albitarsis*** Zetterstedt, 1837
L. ***contraria*** Czerny, 1934
L. ***fraxina*** MacGowan & Rotheray, 2000 (= *hirticeps* of the British list).
L. ***caledonica*** MacGowan & Rotheray, 2000 (= *laticornis* sensu Hackman, 1956)
L. ***mallochi*** MacGowan & Rotheray, 2000 (= *laticornis* sensu Collin, 1953 and of British list)
L. ***serrata*** MacGowan & Rotheray, 2000

Data is also given for the four species (*caucasica*, *hackmani*, *ragnari* and *zetterstedti*) added in the checklist. The occurrence of *hirticeps* and *laticornis* in Britain now requires confirmation.

Agromyzidae. *Agromyza* ***idaeiana*** Hardy, 1853 is established as a senior synonym of *A. potentillae* in the present issue.

Phytomyza ***hellebori*** Kaltenbach, 1874 is added in the present issue.

Anthomyzidae. The paper referred to in Note 2 of the checklist has now been published (J. ROHÁCEK. 1999. *Studia dipterologica* **6,** 373-404), with the following changes:

Paranthomyza ***caricis*** Rohácek, 1999 is added.
FUNGOMYZA Rohácek, 1999 is proposed to include *Anthomyza albimana* only.

Chloropidae. In a revision of the Nearctic species of *Cetema* by J. SAVAGE and T.A. WHEELER (1999. *Entomologica Scandinavica* **30,** 249-262), *C. paramyopinum** is synonymised with *C. neglectum*; this is accepted by John Ismay (*pers. comm.*). In the same paper, *Cetema* is erroneously treated as feminine and the synonymy of *C. simile* with *elongatum* is accepted; this is an error as indicated in the previous issue, *simile* being the species described as *elongatum* in this paper.

Specimens of *Chlorops planifrons* (Loew) with a reddish katepisternal mark were previously identified as *C. triangularis** Becker but E.P. NARTSHUK (1998. *Entomologica Fennica* **9,** 153-183) has concluded that there is only one variable species and *C. planifrons* is the older name.

Ephydridae. *Allotrichoma* ***bezzii*** Becker, 1896 is added in the present issue but replaces *Allotrichoma* sp. indet., which was the only included species of the genus listed in the checklist.

Scathophagidae. The name *Norellisoma flavicorne* was restored from synonymy under *lituratum* to replace *opacum* of the checklist by J.M. NELSON and F. ŠIFNER (2000. *Entomologist's monthly Magazine* **136,** 31-35), but as this conclusion was apparently not based on examination of types, it is not accepted here.

Anthomyiidae. *Botanophila* ***tuxeni*** Ringdahl, 1953 is added in the present issue.

Muscidae. The record of *Helina cinerella* was published by T. ROPER, P. SKIDMORE & A.C. PONT (1999. *Entomologist's monthly Magazine* **135,** 207-209).

Details of the British record of ATHERIGONA (subgenus ATHERIGONA*)* ***varia*** (Meigen, 1826 - *Anthomyia*) are given in the present issue and this species is thus raised from the Excluded species category.

A previously established synonymy was overlooked in preparation of the checklist:
Phaonia ***suecica*** Ringdahl, 1947 = *P. colbrani* Collin, 1953 (established by R. Engelmark and T.-B. Engelmark. 1989. *Entomologisk Tidskrift* **110,** 81-95, 17 figs).

Sarcophagidae. R.M. BLACKITH and T. PAPE (1999. *Studia dipterologica* **6,** 239-250) have placed *Sarcophaga sorror* in synonymy with *S.* ***discifera*** Pandellé, 1896; this name had hitherto been used for another (not British) species, described as new in this paper.

Tachinidae. *Phasia* ***barbifrons*** (Girschner, 1887 - *Alophora*), a member of the subgenus *Phasia* sensu stricto is added in the current issue (Exhibit by L. Clemons, who is preparing a more detailed account).

In a paper on host records of west Palaearctic Tachinidae by T.H. FORD, M.R. SHAW and D.M. ROBERTSON (2000. *Entomologist's Record and Journal of Variation* **112,** 25-36), three species are recorded as new to Britain. One of these, *Anthomyiopsis plagioderae* was included in the checklist as "added by Shaw and Ford (in preparation)"; the others are as follows:

Phryxe ***erythrostoma*** (Hartig, 1837 - *Tachina*)
STURMIA Robineau-Desvoidy, 1830 and its species ***bella*** (Meigen, 1824 - *Tachina*)

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Atherigona varia (Meigen, 1826) (Diptera, Muscidae) in Southern England

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Summary
Atherigona varia (Meigen, 1826) is recorded as a genus and species new to Britain, based on a specimen collected at Stoborough Heath, Dorset. Earlier, incorrect, records of this as a British species are reviewed.

Introduction
On 30 June 1998, whilst collecting with the Dipterists Forum summer field meeting to Dorset, PG collected one female of a small muscid fly at Stoborough Heath, near Wareham (SY 944856). It was collected by sweeping on an open expanse of acidic, herb-rich grassland. The NVC type was presumed to be U1 *Festuca ovina-Agrostis capillaris-Rumex acetosella* grassland. At the time it was recognised by colleagues in the field as belonging to the genus *Atherigona* Rondani, a genus not previously confirmed to occur in the British Isles. Attempts were therefore made by several people on the next day to collect further specimens and by PG at approximately the same time in 1999, but without success. The capture was reported briefly by Grainger (1998: 15). The specimen was sent to ACP, who identified it as *Atherigona varia* (Meigen, 1826), and this was reported by Chandler (1998: 176; 1999: 61). This is the first genuine British specimen of this species and it has now been placed in the collection of the Natural History Museum, London.

Recognition
Atherigona varia is a small fly, up to 3mm in body length, and is easily recognised by the angular head and long antennal first flagellomere (Fig. 1). Additional characters to note are the single reclinate orbital seta; shining black prementum of proboscis; absence of prealar seta; 3 katepisternal setae, placed as if at the points of an equilateral triangle; absence of a calcar on hind tibia; very reduced scutal setae, for example with most of the dorsocentrals hardly distinguishable from the ground-setulae. Males may be easily recognised by the curiously-shaped palpi, and by the presence of a so-called hypopygial prominence and trifoliate process on the pregenital tergites (Fig. 2).

History in Britain
It is curious that *Atherigona varia* was on the British list for some 120 years, from 1829 until it was deleted as a British species by Collin (1953: 172). Some of the earlier records are questionable in the extreme, but others are not so easy to dismiss, and one may ask whether the species has indeed been previously established on the British mainland. Although southern England would be at the extreme limit of its present range, it is possible that it occurred here until the middle of the 19th century, became extinct, and now, with global warming beginning to affect the European fauna, has once again become established.

The species *varia* was included in the earliest lists of British Diptera (Stephens 1829a: 60, and 1829b: 308; Curtis 1831: 228, no. 98, and 1837: 265, no. 182). It was next mentioned by Walker (1853: 137) with the comment "Not rare. (E.)". However, it is clear from his description that he was not dealing with true *varia* but with some other species, the identity of which can no

longer be determined. In the second half of the 19th century, R.H. Meade was the leading specialist on calyptrate Diptera and he included *varia* as a British species. Meade (1883a: 59) included *Atherigona* in his key to British genera and (1883b: 107; 1897: 76-77) described both sexes of what is clearly correctly identified as *Atherigona varia* with the comment "Rare". He also noted (1883b: 107) that Walker's *varia* was another species. After this, several "standard" works included *Atherigona varia* as a British species (e.g. Wingate 1906: 247). Check lists of British Diptera by Verrall (1888: 24; 1901: 24) and Kloet and Hincks (1945: 426) all included the species. It was finally Collin (1953: 172), in a series of additions and corrections to the list of British Muscidae, who removed *Atherigona varia* from the British list.

Collin's action was fully justified, for no undoubtedly British specimens of *Atherigona varia*, prior to the one discussed here, are known to exist. There is no undoubted British material in the London Natural History Museum, where what has survived from Stephens' and Walker's collecting is to be found. Meade's collection is also there, but it contains no British *varia* and indeed no specimen at all labelled as *varia* among the Coenosiinae (where Meade and others placed the genus *Atherigona*). There is 1 male of *varia* from Meade's collection in the General Collection at the Natural History Museum, but it has no locality data and is labelled by Meade "From F. Walker's Colln." Although of unknown provenance, this may have been one source for Meade's comments on this species. In the Oxford University Museum of Natural History there is no British material in the Verrall-Collin collection, either in the main collection or in the various duplicate collections; nor is there material in the Dale Collection, a comprehensive 19th century collection of British Diptera.

It is fortunate that the Curtis collection survives in its entirety in the Museum of Victoria, Australia. Thanks to the considerable efforts of Dr Ken Walker, we have received Curtis' material of *varia* for study, together with a copy of his notebook entries, and have been able to establish that his material is not true *Atherigona varia*. Curtis included the species in *Anthomyia* Meigen in 1831 and in *Pegomya* Robineau-Desvoidy in 1837 (both now in Anthomyiidae), and under *Pegomyia* [sic] *varia* the notebooks read as follows:

> "Larva feeds on parenchyma of Rumex crispus and or [other] Docks: Henslow[1].
> 13 June [18]46 male by canal Hanwell[2], the maggots lived under the cuticle and I bred male & female
> 24 June Covehithe[3] male. 10th. Cosmore quay[4].
> 21 Aug Caen[5] wood female.
> 11 July Woolmer[6] woods"

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1 Evidently Rev. J. S. Henslow, friend of Charles Darwin. Henslow was Professor of Botany at Cambridge, and was responsible for Darwin joining the "Beagle".

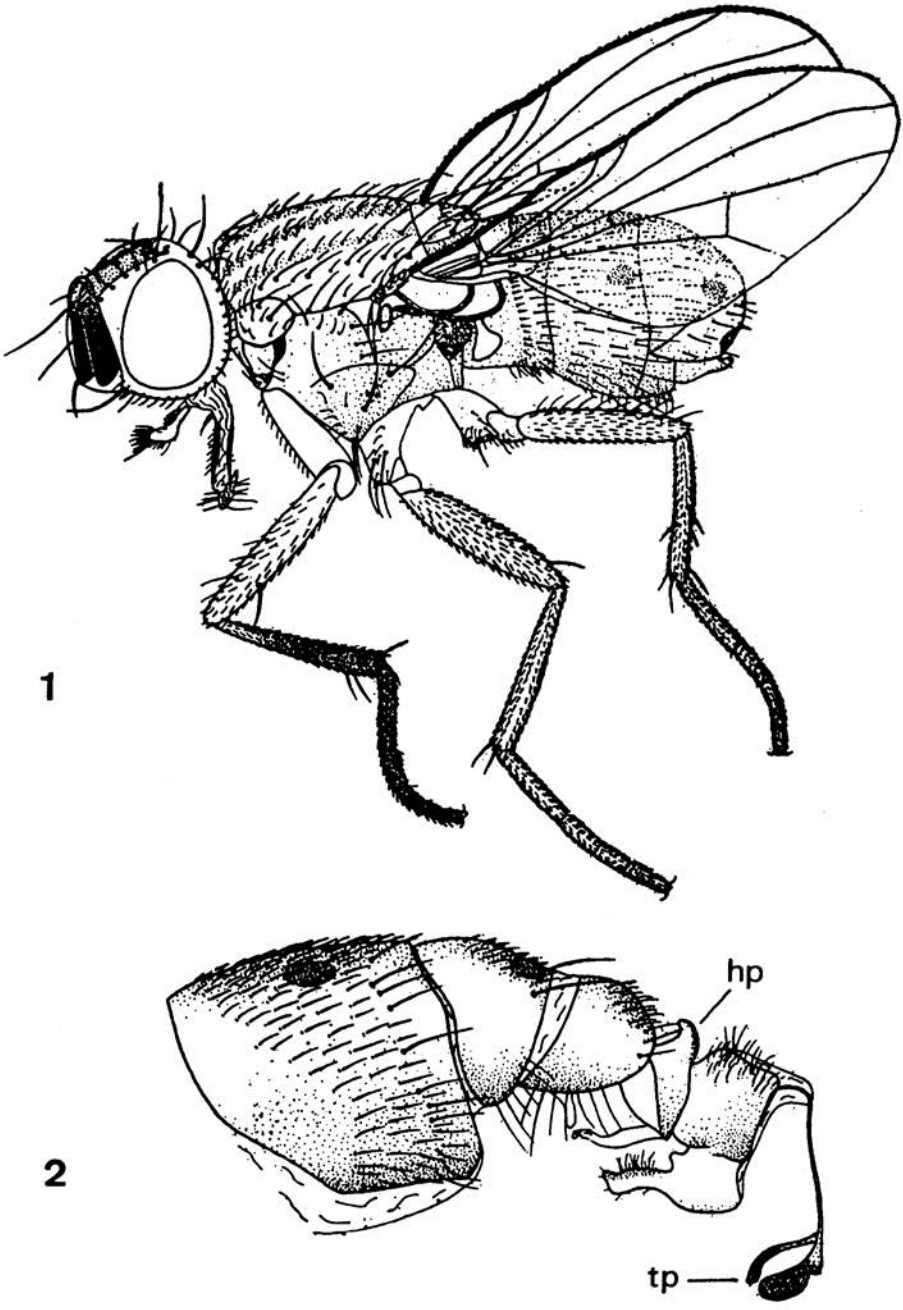
2 Now a suburb of West London, close to Ealing and to part of the Grand Union Canal.

3 Covehithe is close to the Suffolk coast, just north of Southwold.

4 Cosmore is in Dorset, in Cerne Abbas rural district and close to Glanville's Wootton. It is the site of a spring head, which may the reference to "quay".

5 Caen Wood, or Ken Wood, is at the northern extremity of Hampstead Heath in North London. This is not far from Arno's Grove in Southgate, the home of Francis Walker, and it is known that Curtis and Walker collected together.

6 Woolmer Forest straddles the border of Hampshire and West Sussex.



Figs 1-2. Male of *Atherigona varia* (Meigen, 1826). 1, adult habitus, lateral view; 2, segment 3 and following segments of abdomen, lateral view. hp = hypopygial prominence, tp = trifoliate process (from Pont 1973).

From this it would appear that Curtis' material must belong to a leaf-mining species of *Pegomya* (Anthomyiidae), but to our surprise his seven specimens of *varia* proved to be Muscidae of the genus *Coenosia* Meigen:

1 male, labelled "24 June / Covehithe", is *Coenosia pumila* (Fallén, 1825)
1 male, labelled "1281 [?] / 98", is *Coenosia albicornis* Meigen, 1826.
3 males 2 females, without data, are *Coenosia albicornis* Meigen, 1826.

European Distribution

This is the only widespread European species of this predominantly tropical Old World genus. It is known from Central and Southern Europe, the Macaronesian islands, North Africa and the Middle East, and extends further east through southern Central Asia to China and the Far East province of Russia (Pont 1986: 114).

Stein (in Bezzi and Stein 1907: 676) also included "Europa centr. et mer." in the distribution of this species and later (Stein 1916: 117-118) wrote that it occurred mainly in the Mediterranean area but had been caught in "Hungary", which marked its most northerly occurrence. Pre-1918 Hungary covered a wide area now dismembered into Hungary, the Czech Republic, Slovakia, Romania, Bulgaria, Moldova and parts of the former Yugoslavia (Slovenia, Croatia, Bosnia-Herzegovina, Dalmatia). Séguy (1923: 249-250), in his treatment of French Muscidae, wrote that the species was very common in the south of France. Karl (1928: 209-210), dealing with the German Muscidae, recorded *varia* from Darmstadt (latitude 49°52'N). In his revision of Palaearctic Muscidae, Hennig (1961: 501-504) overlooked Collin's (1953) remarks, but mentioned the two most northern records of Britain and Darmstadt with the comment that these certainly did not represent a regular occurrence but were possibly due to accidental transport ["Verschleppung"]. Most recently, it has been recorded from Moravia (Gregor 1997: 94). The English record at 50°40'N marks the most northerly occurrence of *varia* yet known.

Adults are on the wing in southern Europe uninterruptedly from mid-April through to mid-October or even into December.

Surprisingly, since this is such a common species, its biology is not known. Like other species of the genus it will certainly prove to be a "shoot-fly". Larvae of *Atherigona* subgenus *Atherigona*, to which the species *varia* belongs, attack the stems of seedling cereal crops and wild grasses, often causing considerable damage (for useful reviews, see Deeming 1971, 1973; Pont 1973; Pont and Magpayo 1995).

It seems certain that *varia* develops in the stem of a wild grass, or of several species of grass, but so far the host has not been discovered. Dr John Deeming (*in litt.*) recently found a puparium in a grass at Vallombrosa (Tuscany, Italy), from which he reared an adult *varia*, but it was not possible for the grass to be identified.

The Future

Whether *Atherigona varia* is truly established in southern Britain remains to be seen. If it were, it would certainly be at the limit of its range and an unusually cold winter could wipe it out. It is possible that this was a chance specimen blown across from the European mainland, but against that it should be pointed out that *varia* does not occur along the Channel coast of France; that 1998 was a poor year for insect migration; and that the chance of one or even several migrant specimens being intercepted by a dipterist is very remote. The most likely explanation is that in some way the species has become established and may be able to survive in low numbers in undisturbed grassland habitats in favourable situations along the southern coast of England.

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