Hoverfly Newsletter

No. 9 May 1989

After another mild winter an active season for hoverfly recorders seems to be in prospect. Certainly the sight, in April, of several female Parasyrphus punctulatus ovipositing among aphid infested branches of a spruce tree in my garden is encouraging!

There are still hoverflies new to Britain turning up. Martin Speight and R. Vockeroth record Platycheirus amplus from Ireland [see "announcements" below]. Previously P. amplus was known only from Canada and America. Looking through the collections here in the museum, I came across a single specimen from Blairgowrie, Perthshire which was under P. peltatus showing how worthwhile it is to carefully check previously identified material when new knowledge is available.

Having had few reports to judge by, is the system of Local Advisers is working to everyone's satisfaction? Please let me know of any problems. Contributions for the next issue by 1 October 1989 please. Graham E Rotheray, Royal Museum of Scotland, Chambers Street, Edinburgh, EH1 1JF.

CONTENTS

More on flower-feeding xylotines

Colin Plant, Passmore Edwards Museum, 29 Romford Road, Stratford, London E15 4LY.

Unlike Chris Palmer (Hoverfly Newsletter 7) I cannot report Chalcosyrphus nemorum at low growing flowers such as buttercups, but can relate one sighting of a female apparently feeding at flowers of bramble in the Wyre Forest NNR, Worcestershire in 1986. In the same year I also noted a male Xylota tarda engaging in a similar activity at Etchden Wood in East Kent, whilst at Canfield Hart in north Essex, I have noted Xylota segnis at bramble flowers on several occasions during 1986 and 1987.

Syritta pipiens breeding in compost heaps

Alan Stubbs, NCC., Northminister House, Peterborough, PE1 1UA

Syritta pipiens ia a common enough hoverfly and I have searched compost and manure heaps for larvae on a number of occasions without any success. Clearly there was some factor I was not taking account of.

On 31.vi.1988 a chance visit was made to Roger Key's garden at Crowland, Lincs. A large compost heap of grass cuttings was in a semi-shaded position at the bottom of the garden. Quickly the social grace of admiring the more traditional gardener's treasures vanished!

S. pipiens larvae were found in semi-liquid rotting grass some 10cms below the surface, near the edges of the compost heap. On pealing back layers of material, the very agile larvae were quick to escape from view. I found puparia near ground level at the margins of the compost heap in moist but much drier conditions, only a short distance from wetter compost where the larvae had presumably developed. At home adults emerged successfully from these puparia.

It seems that, previously, the factor I had not taken sufficient account of was the requirement of S. pipiens larvae for wet conditions. This is in contrast to the soldier flies, Microchrysa polita and Sargus bipunctatus which also breed in compost, but they tolerate much drier conditions.

Syrphus ribesii var interruptus in Warwickshire

Adam Wright, Herbert Art Gallery & Museum, Coventry, CV1 5RW

During fieldwork at Ufton Fields, Warwickshire (SP3861) on 6.vii.1987, I took a curious-looking female syrphine with divided bands on tergites 3 and 4. This specimen turned out to be Syrphus ribesii var. interruptus Ringdahl which had previously only been known from male specimens in the British Isles (Stubbs & Falk, p 156). The specimen is now in the collections of the Herbert Art Gallery and Museum, Coventry.

Tropidia scita in apparently unsuitable habitat

Colin Plant, Passmore Edwards Museum, 29 Romford Road, Stratford, London E15 4LY.

Both I.K.Morgan (Hoverfly Newsletter 6) and R.Leavett (Hoverfly Newsletter 7) record Tropidia scita in woodland away from the "open fens and lush marshes" which Stubbs & Falk consider the optimum habitat for this species. To this list I can add two further unlikely sites where T. scita has been found. First, I swept 2 males and 3 females from wasteground filled with grasses, japanese knotweed and elder in Stratford on 18.viii.1985. The site is bordered by the river Lea which is tidal at this point. The second unlikely site is the overgrown churchyard of St. Mary Magdalene Parish church of East Ham, London. Mark Hanson took 2 males from this site on 30.vi.1980 and I have seen males on two occasions since then, in 1984 and 1985. There were, at that time, a number of Phragmites filled ditches a few hundred metres away but the London Docklands "development" has now obliterated these totally.

Parhelophilus versicolor (F.) in Ayrshire

E. Geoffrey Hancock, Art Gallery & Museum, Kelvingrove, Glasgow G3 8AG.

An interesting and unusual site on the Ayrshire coast has recently become available for surveys, namely the Nobel Factory (ICI Explosives) which has recently undergone contraction (for commercial reasons I hasten to add!) There are "conducted" tours which tend to be rather hurried affairs!? This is probably just as well because loud "bangs" periodically occur, although the guides assure you there is nothing to worry about as its "only" detonators being tested.

The site encompasses a wide range of habitats and includes many "holes" the origin of which needs no comment! On a preliminary visit, the scarce P. versicolor was found along with a sprinkling of typical sand dune species from other families and orders.

Callicera rufa - alive and well!

Iain MacGowan, NCC., 9 Culduthel Road, Inverness,

Callicera rufa, a species of the native pinewoods of Scotland, has always been a rare and elusive hoverfly. Only recorded about 18 times in three localities since its discovery at Nethy Bridge in 1904, it is categorised as "endangered" in the Insect Red Data Book.

Nonetheless, Coe was fortunate to find larval stages in a rot-hole on a Scots Pine tree in 1937. Fifty years on, in June 1987, at Rothiemurchus, the characteristic larva (short-tail with pairs of abdominal prolegs partially fused) was again found in rot-holes on pines by Colin Hartley et al., (Hoverfly Newsletter 6) raising the possibility that larvae might be found more easily than the adults. With this in mind Graham Rotheray and I quickly organised a survey for 1988.

Our first breakthrough came at Beinn Eighe NNR in Wester Ross when, with the help of several Scottish based Dipterists, we discovered larvae in two rot-holes, one of which had 30+ larvae present! Having realised what signs to look for when searching for rot-holes we went on to visit a total of 19 pinewood sites over a five month period and found larvae or puparia at 16 of these sites. Obviously this is one of those species better recorded in the larval/puparial stages.

We now realise that C. rufa is present in most of the native pinewoods throughout Scotland and also, interestingly, in some small, scattered, remnant pinewood sites. C. rufa does not need massive old pines in which to survive as it occurs in rot-holes of apparently healthy, younger trees. The "endangered" status of this species needs revising clearly, a point which is discussed in more detail in our paper describing the results of this investigation currently "in press" with The Entomologist.

Volucella zonaria: occurence at coastal sites and thorax colour in the male

David Iliff, Green Willows, Station Road, Woodmancote, Cheltenham, Glos., GL52 4HN.

Volucella zonaria may not be the rarity it was in Verrall's day, but its comparatively limited distribution and its imposing size and appearance are still enough to cause more than a little excitment when it is seen in the field.

In 1988 I visited Torquay for the first time and was fortunate to find V. zonaria present in numbers at the Princess Gardens. I counted no fewer than 11 specimens at one time. Most were visiting Hebe and Viburnum flowers.

A photograph which I took of a male zonaria on a previous occasion at Bournemouth, caused one person to challenge my identification suggesting that what I had seen was V. inanis because the photograph showed the thoracic dorsum, instead of being chesnut as described in all keys, was mainly black like inanis. Nevertheless I was convinced by the size of my specimen and other characters that the identification was correct. Examination of the collection of zonaria at the British Museum (Natural History) revealed that a proportion of males do have, in fact, a black thorax.

The examples of zonaria which I saw at Torquay included both sexes. I photographed two males and both turned out to have the mainly black thoracic dorsum I had found in the Bournemouth male. There was no doubt that these flies were zonaria as the pattern on the sternites was identical to that illustrated for zonaria in the key in Stubbs & Falk; indeed one of my photographs shows a side view of the black dorsum and black sternite 2.

Guernsey Hoverflies

Tim Lavery, Country Watch, Farnes, Castlemaine, Co. Kerry, Ireland

Guernsey, the second-largest of the Channel Islands, measures only 24 sq. miles and lies just 30 miles from France.

Most of the island is urbanised or turned over to intensive agriculture. Luckily, mainly through the work of the Societe Guernesiaise, parts of the island have been saved as nature reserves and a few other sites remain untouched.

Naturally the hoverfly fauna is not as great as France or Britain and, sadly, many species appear to have been lost from the fauna since 1945 when pressure on the land increased. These points were particularly evident when researching the entomological collections of the Guernsey Museum & Art Gallery and from collecting around the island. Only 30 species have been recorded and of this small figure only half can be confirmed as still occurring on the island. I noticed that Eristalis pertinax, Syrphus ribesii and Platycheirus albimanus were well out by early March and may even be seen on the wing as early as the last week in February.

Below is a list of the species recorded from the Bailiwick of Guernsey. The species I suspect as being lost from the fauna in recent times are marked with an asterisk. Further information and records from The Channel Islands would be appreciated.
Cheilosia vernalis*, Chrysotoxum bicinctum, C. festivum*, Eristalinus sepulchralis*, Eristalis arbustorum, E. pertinax, E. tenax, Ferdinandea cuprea*, Helophilus pendulus, Eumerus tuberculatus, Lejogaster metallina*, L. splendida*, Melanostoma scalare, M. mellinum*, Merodon equestris*, Epistrophe eligans, Metasyrphus latifasciatus*, M. corollae, M. luniger*, Myiathropa florea*, Platycheirus albimanus, P. clypeatus*, P. manicatus*, P. peltatus, Pyrophaena granditarsa*, Scaeva pyrastri, Sphaerophoria menthastri*, Syritta pipiens, Syrphus ribesii, Volucella bombylans.

Hoverfly Mapping in Denmark

Ernst Torp, Norrevang 19, DK-7300, Jelling, Denmark

In 1984 distribution maps of the 263 species of hoverfly known from Denmark were published in my book, "De danske Svirrefluer".

The mapping scheme has continued since then and interest in hoverflies has much increased in Denmark. When the maps were published in 1984 they were based on 15,100 records but by 1988 this figure had increased by 50%!

In Denmark we have 640 10km UTM-squares:

From 39 squares	0	species recorded
- 140	1-24	-
- 274	25-49	-
- 187	>50	-
640 squares		

Only records based on collected specimens are accepted into our data base. Collaborators collect, prepare and label their material which I then identify and enter the records into the scheme. The specimens are then returned to the collaborators.

Collaborators are sent maps (scale 1:50.000) of the squares they collect in, or where they intend to collect, or where collecting is most needed. For well recorded squares they are

also sent a card with the species known from it so they can concentrate on the species not known from the square. Collaborators also receive a newsletter, "XYLOTA", three times a year.

1988 was very profitable - 20 collaborators took part in the project and collected 187 species from 238 squares representing a total of 3135 new records. An average figure for species recorded per square is 35.7. Twenty-one species are known from more than 300 squares and 7 species from more than 400. The most common Danish species is Syritta pipiens known from 541 squares. We intend to continue the project in 1989 but concentrating on poorly recorded squares.

Microdon mutablis in Cromarty - a previous record

Austin Brackenbury, 76 Crawford Road, Sheffield, S8 9BU.

Comparing notes with Geoff Hancock since his account of capturing a single specimen of this species at Monadh Mohr, Black Isle on 18.vi.1988 (Hoverfly Newsletter 8), it is apparent he stumbled across the very same site where, accompanyied by Bill Ely, I too captured a single female on 11.vi.1984 whilst attending the Dipterist's Summer Field Meeting based on the Muir of Ord.

My specimen was flying close to the ground in a bee-like way near grass tussocks in a "dry" boggy/birch clearing at the edge of stands of conifers. It was 15.30hrs on a sunny day and the fly was taken with a small hand net with a five inch handle!

Similar to the 1988 occasion, colleagues on the field meeting visited the site the following day but were unable to find any other specimens much to everyone's disappointment.

Dasysyrphus fruiliensis again!

Adam Wright, Herbert Art Gallery & Museum, Coventry, CV1 5RW

Tracking down specimens mentioned in the literature can be a depressingly difficult task, so the following snippet of information kindly suggested by Roy Crossley may be of interest. In Hoverfly Newsletter 8, I reported the "discovery" of a specimen of D. fruiliensis, now in Birmingham Museum, taken at Sutton Park in 1895 by R.C. Bradley. Verrall in his 1901 syrphid book refers, on p.350, to a female D. venustus in which, "... the lunules are so constricted about the middle as to be almost or quite interrupted ...". Since the specimen thus described by Verrall was taken by Bradley in Sutton Park it seems highly likely that this was the actual specimen now in the Birmingham Museum collection.

Hovering in Chrysotoxum

Rupert Hastings, 33 Bracken Gardens, Barnes, London SW13 9HW

With regard to David Iliff's note in Hoverfly Newsletter 7, concerning the extent of hovering flight habits in Chrysotoxum species, it may be worth noting that I have several times seen C. festivum hovering persistently during July in Kew Gardens in the manner he describes.

Identification of female Parhelophilus

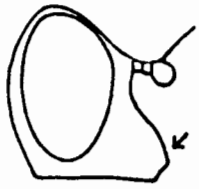
Alan Stubbs, Nature Conservancy Council, Northminster House, Peterborough, Cambridgeshire, PE1 4DS.

The key couplet for female Parhelophilus frutetorum/versicolor in 'British Hoverflies' has not been as precise as one would wish. The face profile proves rather too variable and to place sole reliance on the colour of hairs behind the top corner of the eyes seems rather hazardous.

Further consideration of this problem reveals further characters of apparent value. The hairs on tergite 5 are entirely yellow in frutetorum whereas about the posterior margin of versicolor they are black. Tergite 4 has erect black hairs behind and in the front part the pale hairs are longer than half the width of the hind tibia in frutetorum whereas in versicolor the black hairs are semi-adpressed and the pale hairs much shorter (Steven Falk sorted this out). Also the hind metatarsus is more slender in versicolor.

Taking account of the suggested refinement of couplet 4 put forward by Colin Plant with regard to separating consimilis (Hoverfly Newsletter No.5,) the key should now read.

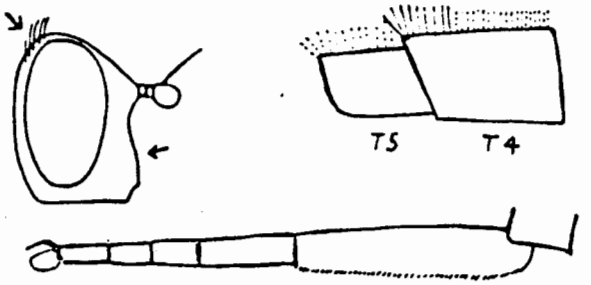
4. Front tibia with an obvious black patch on the dorsal surface at the apex (obvious when viewed from above). Face profile extends well forwards.



consimilis

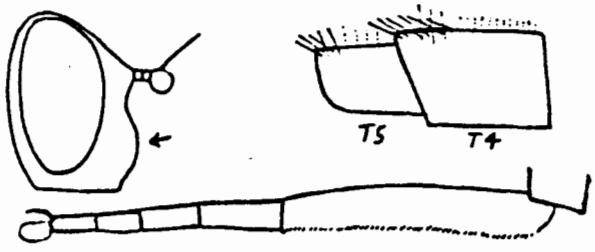
\- Front tibia without a dark patch in this position but usually with a ventral or antero-ventral dark patch (not clearly seen from above). Face not so extended forwards. 5

5. Hind margin of head with a row of long black hairs (among many yellow hairs) near top corner of eyes. Tergite 5 with all hairs yellow. Tergite 4 with erect black hairs in posterior quarter (view from side). Hind tarsus with basal segment equal in length to remaining four segments combined.

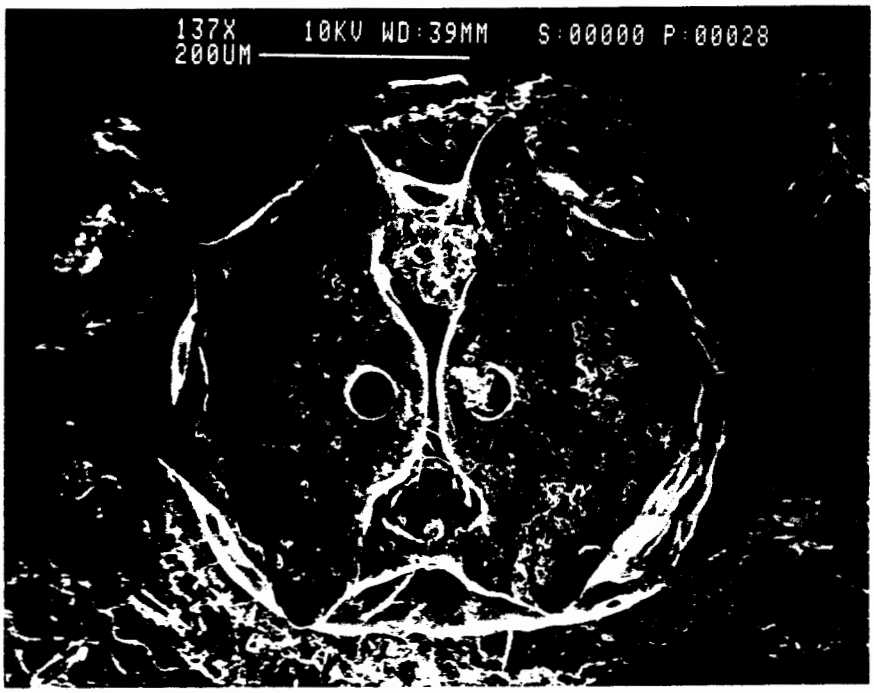


frutetorum

\- Hind margin of head only with yellow hairs near top margin of head. Tergite 5 with black hairs at apex. Tergite 4 with mainly semi-adpressed black hairs in posterior quarter. Hind tarsus with basal segment more slender and longer than the remaining four segments combined.



versicolor



Mystery Photograph !?

Well, not really, its the tip of the posterior breathing tube from the puparium of Cheilosia albitarsis.

The photograph is of a poorly documented European specimen in the collections of the Smithsonian Institution in Washington, USA and kindly forwarded by Chris Thompson. The real mystery is the foodplant of this species (nothing helpful on the specimen labels).

Stubbs & Falk refer to adults being associated with buttercups (Ranunulus spp). I have seen females climb down the stems of buttercups and, once, managed to find a hoverfly egg attached to the base of a buttercup stem but it failed to develop.....

Careful observation of females of this very common Cheilosia species, coupled with examination of stems and roots of buttercups, should soon reveal whether these vague clues mean anything.

Well, which Hoverfly Newsletter reader can solve the mystery? Now there's a challenge for 1989!

Graham E Rotheray

ANNOUNCEMENTS

Darwyn Summer (54, Blackshaw Lane, Royton, Oldham, OL2 6NR) has taken over as Local Advisor for the North-West region following Chris Palmer's move to Hampshire. Darwyn has produced a North-West Recorders Newsletter and has arranged a full programme of meetings for 1989 - details available from Darwyn.

Request for information - Ted and Dave Levy (9 Chilton Grove, Yeovil, Somerset) have nearly completed an up-to-date list of Dorset hoverflies and would like information (from anywhere) and records (especially from Dorset) of three species that have apparently declined in recent years, Eoeristalis cryptarum Chrysotoxum octomaculatum and Sphaerophoria loewi.

Larvae/puparia wanted - for research into the biology and systematics of hoverflies, please contact Graham Rotheray (Royal Museum of Scotland, Chambers Street, Edinburgh, EH1 1JF) if you have specimens or are willing to help collect material.

Wanted - records of the Platycheirus peltatus group - by Alan Stubbs (NCC, Northminister House, Peterborough PE1 1UA). In the last Hoverfly Newsletter I showed how to separate P. peltatus from species A. Now that a season has passed it would be helpful to examine the distribution of these species. Please would everyone check through their collections and send records to me at Northminster House. Note that another related species is known from the British Isles, Platycheirus amplus (Speight & Vockeroth, 1988 [for full reference see "recent publications" below - Ed.]). This species has the mid-tibia more simple on the ventral surface and half-way down some long hairs on the posterior lateral surface (hairs as long as width of tibia but curved towards apex). If in doubt, please send specimens to Alan for verification.

Wanted to examine - "problem" Metasyrphus specimens particularly those related to Metasyrphus nielseni/nitens. Adam Wright (Herbert Art Gallery and Museum, Jordan Well, Coventry, CV1 5RW) is investigating a series of "problem" specimens in this genus but needs comparative material. If anyone has unusual specimens or specimens that are difficult to identify please get in touch with Adam.

RECENT PUBLICATIONS

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Clausson, C. & Speight, M.C.D. 1988. Zur Kenntnis von Cheilosia vulpina (Meigen, 1822) und Cheilosia nebulosa Verrall, 1871 (Diptera, Syrphidae). Bonn. zool. Beitr. 39, 19-28.

Delfos, M.J. 1988. Blera fallax does occur in the Netherlands (Diptera, Syrphidae). Entomol. Ber. (Amst). 48, 92-93.

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Haslett, J.R. 1988. Assessing the quality of alpine habitats: Hoverflies (Diptera, Syrphidae) as bio-indicators of skiing pressure on alpine meadows in Austria. Zool. Anz. 220, 179-184.

Haslett, J.R. 1989. Interpreting patterns of resource utilization: randomness and selectivity in pollen feeding by adult hoverflies. Oecologica 78, 422-433.

Heal, J.R. 1989. Variation and seasonal changes in hoverfly species: interactions between temperature, age and genotype. Biol. J. Linn. Soc. 36, 251-269.

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Rotheray, G.E. & Gilbert, F.S. 1989. The phylogeny and systematics of European predacious Syrphidae (Diptera) based on larval and puparial stages. Zoo. J. Linn. Soc. 95, 29-70.

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Speight, M.C.D. 1988. Neoascia podagrica (Diptera, Syrphidae) in Ireland, with a key to distinguish it from related European species. Ir. Nat.J. 22, 447-452.

Speight, M.C.D. & Vockeroth, J.R. 1988. Platycheirus amplus: an insect new to Ireland not previously recorded from Europe (Diptera, Syrphidae). Ir.Nat.J. 22, 518-521.

Whitely, D. 1988. Hoverfly Report for 1987. Derbyshire Ent. Soc. Journal No. 91, 10-15.