Hoverfly Newsletter

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Recent issues of this newsletter have contained extensive lists of literature references compiled by Roger Morris, but it has not been possible to include one with this issue. Roger hopes to resume such lists with effect from the autumn newsletter.

At the time of writing (early February) much of Britain is enjoying beautiful sunny weather, exceptionally warm for the time of year, and already reports of early-flying hoverflies are being received. Let us hope that this foreshadows a productive recording year.

Copy for **Hoverfly Newsletter No. 45** (which is expected to be issued with the Autumn 2008 Dipterists Forum Bulletin) should be sent to me: **David Iliff, Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN**, (telephone 01242 674398), email: **davidiliff@talk21.com**, to reach me by 20 June 2008.

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Hoverfly Recording Scheme update

Stuart Ball

255 Eastfield Road, Peterborough, PE1 4BH, stuart.ball@dsl.pipex.com

Roger Morris

7 Vine Street, Stamford, Lincolnshire, PE9 1QE, roger.morris@dsl.pipex.com

2007 will probably not go down as one of the all-time great hoverfly years. A nice warm spring was followed by wet and cold May and June with hoverflies struggling to recover. The one big difference we saw was a remarkable expansion of range by *Rhingia rostrata* into eastern England – it has got as far north at Peterborough and really should be on the list of species to look out for north of the Thames.

We have yet to get all of last year's records into the database (records please, folks) but as it stands the season looks to have been a real disappointment. Despite this, the dataset is improving with current coverage comprising 535,921 records as of 11 January. We have several additional sets of records to incorporate and by the time this note emerges we expect the numbers to have climbed further. We were particularly pleased to receive Philip Entwistle's records this January – recording scheme stalwarts will recall that Philip ran the scheme in the 1980s and is still recording hoverflies – this is great news.

In our last note we raised the idea of "parataxonomists" who collect material and forward them for identification by the scheme organisers. We are delighted to report that we have a first recruit from a poorly recorded area in southern Scotland: Any more takers?? Just as a reminder – we (Roger) are happy to look at any amount of material collected from named localities (with relevant date and grid ref. data) for people who are happy to collect but are not confident about naming material. It would be great to develop a network of parataxonomists.

Much of last autumn was committed to developing new material for training dipterists. Stuart has produced draft keys to Diptera families together with supporting text and we have also developed a package of material to run courses. We ran a course for the BCNP Trust (Northants etc) in October and this was a great success. We learned a great deal about how to improve teaching hoverfly identification and are about to embark on putting this into practice with a course in Glasgow in early April, and another for the Leicester Ent. Soc. in March. We are keen to expand this aspect of our work – do let record centres know we are available to run courses in the winter – all that we need is to cover our costs (travel and hotels).

As the winter progresses the prospect of a new spring becomes increasingly exciting. We already have plans to go to Scotland on a couple of dates – our interest in following the ecology of *Gonarthrus planiceps* (a Scathophagid) means we will aim north in mid-June before the Dipterists Forum field meeting in late June/early July – we think we will manage a few new squares and maybe a trip to the west coast. Also, we have agreed to do a training course in September so we will make an effort to do a couple of days' recording in conjunction with this trip. Roger also has plans for several trips north to fill gaps – he can't wait! Hopefully this next season will be more suited to recording and we will get a good haul of records.

Climate change continues to dominate the agenda. Stuart has refined his models of hoverfly responses to climate change and these give cause for thought. Where will the southern species get to in the next ten years? Do get out and check for the following:

- *Volucella inflata*
- *V. inanis*
- *V. zonaria*
- *Chrysotoxum cautum*
- *C. festivum*

- *Rhingia rostrata*

Unfortunately, whilst there will be winners, there will also be losers. *Cheilosia sahlbergi* looks to be heading for trouble and is likely to be the first high altitude hoverfly in the UK to be lost as a result of climate change. *Platycheirus melanopsis* does not appear to be at risk at the moment, but others such as *Arctophila superbiens* are heading for trouble. The potential decline of the latter is interesting because we do not seem to get as many records of this species as we did in the past. Roger has made several northern trips in August without seeing it and last summer it seemed to be absent from southern Scotland – is this the first sign of trouble? Keep your eyes peeled for this species.

As spring approaches do bear in mind that all data are important: even the odd record of a spring species such as *Epistrophe eligans*. We can use the data in many ways, and there is a continuing need for big blocks of data of common species. This is one reason why we were delighted to receive a block of Alan Stubbs' garden monitoring – some 1800 records for the last few years. These sorts of projects have great importance when linked to wider interpretations of data – do think about developing your own garden-monitoring scheme – we would be pleased to hear from you.

Good luck for 2008

Helophilus trivittatus: An observation in the wake of the Tewkesbury floods

Martin Matthews
56 Stanford Road, Ashchurch, Tewkesbury, GL20 8QU

On Wednesday 8 August 2007 between 12.45 and 2.15 p.m. (British Summer Time) I visited the Mythe fishing lake (SO8834) north of Tewkesbury for the first time since the unprecedented summer flooding which resulted from persistent torrential rain across this part of the country on Friday 20 July. This is a site which I have visited regularly since 1989 to record the hoverflies. I normally visit at least once a month, more often when possible, every year between April and October. The site is usually quite productive and I have recorded a total of 83 Syrphid species up to 2006.

I found that both the lake itself and the adjacent River Severn had retreated within their normal banks following the recent floods, although the water levels appeared to be a little higher than normal for the time of year. The ground vegetation in the vicinity had suffered obvious consequences from the unseasonal inundation. The only plants flowering were a few scattered umbellifers growing on the top of the embankment between the lake and the river; it appeared that the water had either not overtopped this barrier or had done so only briefly. These flowers had attracted a small number of hoverflies: *Eristalis pertinax, E. arbustorum* and *E. nemorum* were represented by no more than three or four individuals each, and single examples of *Myathropa florea* and a small *Cheilosia* sp. were also seen.

In view of this paucity of hoverflies I had a surprise when I made my way to the east side of the lake, away from the river. There is no embankment on this side, and the gently sloping grassy bank had been transformed into an unpleasant brown combination of mud and dead vegetation. Along the open sections of this bank I repeatedly encountered individuals, and in one case a mating pair, of *Helophilus trivittatus*; I believe that I saw between twelve and twenty individuals in total. The hoverflies were quite active, either moving between resting places on the dead grass or hovering a few inches above the lake, just beyond the peripheral line of rushes.

According to Stubbs and Falk (2002), only single specimens of *H. trivittatus* are usually found, and this has certainly been my own previous experience. The species is also thought to be

migratory, which would explain its erratic appearances at sites such as the Mythe where I had not encountered this large, distinctive hoverfly since 1995. It seems unlikely to be a coincidence that so many individuals should be found within a small area following such exceptional local conditions. However, I cannot say whether this was the result of migration to the site from the surrounding area or a synchronised local emergence triggered by recent environmental circumstances. It would be interesting to know if any similar observations have been made following the flooding events of 2007.

Reference:

Stubbs A.E. and Falk S. 2002. British hoverflies. British Entomological and Natural History Society. 469pp. 2nd edition.

Do some hoverfly mimics of Hymenoptera share the sexual dimorphism of their models?

David Iliff
Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN
davidiliff@talk21.com

The thoracic dorsum of female *Volucella zonaria* is predominantly chestnut in colour, a feature that helps distinguish it in the field from *Volucella inanis*. However in male *V. zonaria* the thoracic dorsum is predominantly black, as in both sexes of *V. inanis*. Both these species have been turning up with increasing frequency in Gloucestershire since 2000, having been unrecorded there previously. At the same time Gloucestershire records of the Hornet (*Vespa crabro*) have increased significantly affording frequent opportunities to observe it in the field. During 2007 I photographed queen and male hornets, and noticed that the thoracic dorsum was mainly black in the case of the males that I saw, which seemed to lack the distinctive chestnut colouring of the thorax of the queens. I consulted Tony Taylor, our county Hymenoptera recorder, who confirmed that queens are typically more gingery in colour than the males or workers. Does the mimicry of the hornet by *V. zonaria* therefore extend to mimicry of the sexual dimorphism, and if so, for what reason, or is this mere coincidence?

There are other examples among the British fauna of mimicry by hoverflies that could be interpreted as instances of the mimics sharing the sexual dimorphism of their models. Several of those hoverfly species that are densely furry and resemble bumblebees exist in various colour forms (a single species in some cases including individuals that mimic different bumblebee species). However bumblebees are not the only furry Hymenoptera that could be considered as candidate models for mimicry by hoverflies. The Flower Bees (*Anthophora* sp.) are also covered in dense fur, their eyes are larger (and hence more hoverfly-like) in proportion to the size of their heads than those of bumblebees and they habitually hover. In the most familiar British species, *Anthophora plumipes*, the male is predominantly tawny haired while the female is almost totally black-haired. Two British hoverflies, *Eristalis intricarius* and *Merodon equestris*, are similar in size to *A. plumipes*, and while both have several colour forms, in the case of *E. intricarius* most males are tawny haired and almost all females are mainly black-haired, while in *M. equestris*, the mainly tawny form *transversalis* is apparently always male, while the mainly black-haired form *validus* is exclusively female.

Square bashing in 2007

Roger Morris
7 Vine Street, Stamford, Lincolnshire, PE9 1QE, roger.morris@dsl.pipex.com

This time last year I was busy planning my summer: a sequence of visits to Scotland and the prospect of filling lots of unrecorded squares was envisaged. In the end I think I managed a reasonable contribution to the scheme but it was far from easy and some trips were a real disappointment. It is therefore a bit of a challenge to summarise my efforts but here goes:

My priority for the year was to make sure that my recording effort was aimed at poorly recorded areas – the Welsh borders of Radnorshire and Shropshire, parts of the East Norfolk/ Suffolk borders and of course Scotland. Spring is not the time to go far north so I spent several weekends in Radnorshire and surrounding counties. My base was the lovely town of Ludlow where I found "The Wheatsheaf" to be an excellent base – nice food, good beer and comfortable rooms – I can recommend it. My interest in this area stems from a passing interest in the Marcher Lords – who can go to Mortimer Forest without maybe thinking of Roger Mortimer who overthrew Edward II? Well, I went to Mortimer Cross amongst others and in Mortimer Forest (close to Ludlow) took *Melangyna quadrimaculata* and *Platycheirus discimanus*. Several other sites in the vicinity yielded *Criorhina ranunculi* and of course *Cheilosia albipila*. I travelled far and wide from Ludlow, going as far as Barmouth and getting a fright from a mobile speed camera placed on the approaches to the town – I spotted it on the way out but was oblivious to it on the way in! Thankfully it did not get me. It was hard work and there were few flies but I did happen across *Chalcosyrphus eunotus* for the first time.

The first May Bank Holiday took me to Thornhill near Dumfries – a favourite hotel the Buccleuch and Queensberry Hotel – great food, real ale and a nice room. The trouble was that the weather was inclement and I failed to do much recording – less than 200 records in a three day trip – by day 3 I headed south early, having failed miserably. Even so I did o.k. for *Brachyopa scutellata*. A trip through Swaledale on the return trip improved my spirits but even so the outcome was a disappointment. Worse was to follow in late May when I travelled north to link up with Stuart and his family at Aviemore. On my first day in the north Pennines I left my GPS on top of the car and drove off! Imagine my frustration trying to get a new one the following day – nice weather and I was stuck chasing from one outdoor shop to another. Poor weather the following day did not help matters and I went round Loch Rannoch in pouring rain. But, on arriving at Aviemore things improved – the following morning it was sunny and we could see snow on the Cairngorms. We had three great days – no hovers to note but some fantastic Scathopagidae capped by a trip up Lurchers Gulley where I took a specimen of *Gonarthrus planiceps* and had wonderful views of Dotterel and Ptarmigan. This was one of those absolutely fantastic days that will live in the memory for life – utterly mind blowing. I'm hooked on Scotland after this and several other trips.

Returning to the flatlands, I made an effort to go to the worst recorded parts of the fens and east Norfolk. On 16 June I had a very eventful trip that comprised black skies and thunderstorms coupled with sunshine and flies. The best site yielded 23 hovers and gave an indication that hogweed was still a real lure – oh for this to be the norm! So often one works hard for less than 15 species per site and in the fens it may be fewer than 10 species.

The DF summer field meeting in Aberystwyth was good fun but poor weather meant we had a fairly disappointing time hoverfly-wise. Nonetheless I'm still working through material – a mix of all Orders but lots of non-syrphid material and Hymenoptera – I need my head testing as I have more material than I can cope with.

Once the DF meeting was over the focus had to be on Scotland again. I have unfinished business with The Borders. The last weekend of July (28-29) saw me back in Dumfries and

Galloway – again at the Buccleuch and Queensberry Hotel. This was a good trip and numbers of hovers were good – maybe averaging 12 species per stop. August was hot and horrid in East Anglia and I was happy to go north. On 5 August I left Stamford at 8.40 and was in Catterick at 10.45 – there were some unrecorded squares in need of attention. This was one of those pitiless days when the sun was at its zenith and the countryside was parched. I struggled but managed 3 hectads. A few days later (9 August) I headed north again – an early start (05.40) to do the area NE of Edinburgh. Foul traffic meant that I did not start recording until 11.15 and that was just the start of a poor day. Bad map reading meant I did several squares that already had records, but I managed a reasonable haul by the end of the day. Two more days of effort suggested that the season was declining rapidly and despite my intentions of staying to the Sunday I found myself southbound on Saturday in poor weather – which improved in North Yorkshire where I filled a few gaps.

The August Bank Holiday was my last chance to do much recording and by that time southern England was a washout. I headed north again – back to the Buccleuch and Queensberry Hotel before heading to Arran and Kintyre. Fantastic landscape but hard work and declining weather meant that by the end of day 2 I had travelled through Ayrshire, across Arran and the into Kintyre for a miserable journey in search of accommodation (I'd timed my trip to coincide with the Highland Games at Inverarie). The following morning I awoke to cloud base at 500 feet and no option but to head home. A wander through Swaledale was a consolation, however – the dales are fantastic at this time of year and there is the odd patch of thistles to peruse.

My one reflection of these trips was that northern species were notably poorly represented. I failed to find *Arctophila superbiens* on any occasion and rarely saw *Eristalis rupium* or *Chrysotoxum arcuatum*. Maybe it was the year, but Stuart's modelling suggests that these species are vulnerable to the effects of climate change – was this the first indication of problems?

Two days later I had the itch to record again and headed west to Telford – one of those unrecorded squares. Upon arriving I realised I had forgotten my GPS – bother and whatsit! Anyway, my OS Gazetteer did the job and I managed the unrecorded square and several other poorly recorded squares – I got *Rhingia rostrata* too! And then – when I got home I discovered my GPS had slipped from my jacket and was in the car all the time – further unspeakable words. That was an eventful end to the season and apart from finding *Rhingia rostrata* the following day at two Northants sites it marked the end of the season. After all that effort the goodies were on my doorstep!

I have several ideas in mind for 2008. Doubtless I will be back in Dumfries and Galloway – the borders have an irresistible magnetism that means I am already planning my next trip. Arran and the West Coast also tug at my heartstrings – I'm hooked.

More next winter – have fun and do head north – it is fantastic for the scenery and the Diptera are not bad either (not withstanding the midges and mossies). I can also recommend Haggis – a nice Scottish breakfast sets one up for the day.

Book Review

Suomen Kukkakärpäset ja lähialueiden lajeja

(FINNISH HOVERFLIES and some species in adjacent countries)

by Antti Haarto and Sakari Kerppola

Otava, Keuruu 2007

This new identification guide to Finnish hoverflies was launched at the International Hoverfly Symposium in Helsinki last Autumn. It is a hefty tome with 647 pages and very lavishly

illustrated with colour throughout. It covers 347 species which occur in Finland, Sweden, Norway, Denmark, Estonia and three nearby Russian provinces. This includes many, but not all, of the species that occur in Britain.

The book is mainly in Finnish, which will of course limit its usefulness to most British Dipterists, but the "Key to genera and species", running to some 73 pages, is repeated in English (with the illustrations also repeated in their correct places in the key) and many of the figures in the introductory sections also have the legends repeated in English. The keys and illustrations are therefore potentially of interest to British workers, especially as keys to female *Sphaerophoria* and *Heringia* are included.

The book starts off with a series of introductory chapters on biology, habitats, collecting techniques, etc. These are in Finnish, so I cannot comment on the text! They are illustrated with some nice photos though.

The bulk of the book consists of accounts for each of the species covered which include a photograph of a specimen, a description (in Finnish) and comments on habitat, distribution, etc. A map of the Finnish distribution is given which uses a base map of Finnish provinces with the distribution indicated by a grey shaded area. Only for rare species are the actual localities shown as dots. The accounts are arranged by tribes and then by genera following the same sequence as the 2nd edition of Stubbs & Falk. Each genus starts with a rather nice field photograph of a representative species, some introductory text and then the key to species. The photographic illustrations of specimens of each Finnish species are reproduced at 4-5x life size. They suffer from rather prominent pin heads which, in some cases, obscure quite a bit of thorax and nearby parts. Most specimens were collected fresh for the purposes of making these photographs, so I am surprised they didn't use headless micro-pins! The photographs of specimens are repeated at life size in a series of seven plates towards the end of the book. I don't see the point of these. They are really too small to be useful.

The illustrations for the keys follow a similar style to those in Stubbs & Falk in that they are simplified and diagrammatic, but all are in colour. The colours are blocks of one tone with no shading. Some of the colours used seem rather odd with a tendency for the yellow abdominal marking to come out with a noticeable green tint. This may of course be a fault in the colour reproduction, but I don't think the use of colour in these diagrams actually adds anything. Since the colours don't seem to be very accurate, they may even be a hindrance. As already mentioned, keys to female *Sphaerophoria* and *Heringia* have been attempted. Whilst the attempt was applauded by delegates to the International Hoverfly Symposium, the general feeling was that they relied very strongly on colours and sizes of markings which are extremely variable. In the case of female *Sphaerophoria*, they rely mainly on the shape of the black mark on the frons, above the antennae and on the shape and colour of abdominal markings. It remains to be seen whether these work. They need testing with material from couple taken *in cop*. where the male can be reliably identified.

The remaining sections include a checklist, a table showing the occurrence of species by Finnish province and in the other countries covered and a bibliography that runs to about 350 references.

There is a web-site at http://www.tam.pp.fi/syrph/english.html with details of the book and it can be purchased from https://www.akateeminenkirjakauppa.fi for €38.90 plus €20 postage and handling charges to EU countries (about £43). Pemberly Books also sell it for £37.50 plus postage.

Delegates to the International Hoverfly Symposium last year were able to buy it for €35 and, of course, there was no postage involved. At this price it seemed well worth having for an alternative set of keys and the illustrations. I am not sure I would be prepared to pay £40 or more though!

Stuart Ball, January 2008

Interesting recent records

Callicera spinolae, female on ivy flowers with numerous other Diptera & Hymenoptera, 22 Sept 2007, Winterton TG4819 (David Lester)

Volucella inanis, female on roadside flowers, 25 July 2007, Kilverstone TL8785 (David Lester)

Volucella zonaria, female, caught indoors at window. 27 July 2006, Bradwell TG5003 (David Lester)

Criorhina floccosa, male 8 May 2005, Upton TG3813 (David Lester)

Xylota abiens, male, 16 July 2005, Upton TG3813 (David Lester)

Heringia heringi, male & female, 8 May 2005, Upton TG3813 (David Lester)

Meligramma guttatum: female, Fowlmere Nature Reserve, Cambridgeshire (Peter Herkenrath, John O'Sullivan), 25 August 2007. According to Ivan Perry and the Hoverfly Recording Scheme website, this seems to be the first record for Cambridgeshire since 1959