HOVERFLY NEWSLETTER

NUMBER 38 AUGUST 2004





ISSN 1358-5029

Firstly I must apologise to forum members who are receiving the previous issue of the newsletter (no. 37) at the same time as this one rather than six months ago; it should have been published with the Bulletin of the Dipterists Forum No. 57 in the spring, but as it was explained on page 4 of that bulletin. there were good reasons why the deadlines for copy had to be adhered to strictly, and I failed to get the newsletter to the bulletin editor by his deadline. Some members were given hard copies shortly afterwards, and those whose email addresses are known to the Forum have, I understand, received it electronically, but there are still a number who will be seeing it for the first time. In order to avoid a repetition of this situation I shall in future be similarly strict with the deadlines for newsletter copy; to be certain of having your notes included in the next newsletter, please ensure that they reach me by the deadline specified at the end of the editorial section; entries that are a few days late may still be included, but I cannot guarantee that they will not have to be held over until the subsequent newsletter. If any reader still has not had a copy of Newsletter No. 37 please contact me.

I should like to thank Roger Morris for taking on the task of providing a list of hoverfly literature. Such lists used to be a regular feature of this newsletter; Roger has come up with a way of filling the gap and will bring the feature up to date over the next few newsletters.

Copy for Hoverfly Newsletter No. 39 (which is expected to be issued in February 2005) should be sent to me: David Iliff, Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN, Email davidiliff@talk21.com to reach me by 20 December.

CONTENTS

Stuart Ball &		
Roger Morris	Hoverfly Recording Scheme update	
Barry Brigden	Ten minutes in the life of <i>Doros profuges</i>	•

David Iliff	Dramatic increase in <i>Rhingia rostrata</i> in	
	Gloucestershire since 2000	6
Stuart Paston	Scaeva selenitica observed in late December	7
Ted & Dave Levy	Dorset Hoverfly Report 2003	7
Roger Morris	Recording hoverflies in overcast weather in April	9
Roger Morris	Testing the range of Volucella inflata	9
Roger Morris	An exceptional abundance of <i>Platycheirus discimanus</i>	10
	Interesting recent records	11
	Review: BBC Wildlife Magazine Pocket Guide on	
	Hoverflies and their Relatives	12
	Advance notice: 3rd International Syrphidae Workshop	
	(September 2005)	13
	Literature Review	14
	Literature for 1997	14

HOVERFLY RECORDING SCHEME UPDATE

Stuart Ball 255 Eastfield Road, Peterborough, PE1 4BH (stuartball@dsl.pipex.com)

Roger Morris 7 Vine Street, Stamford, Lincs, PE9 1QE

Some of you will already be aware that Dipterists Forum website has started to become active and is growing rapidly. A website for the Recording Scheme is also proposed, and who knows – maybe it will be up and running by the time this newsletter emerges from the presses. In the meantime, we are starting to get items ready for web-based dissemination, whilst concentrating on getting the DF website on the map. As part of this process, Stuart has prepared an index to both the first and second series of Dipterists Digest (in addition to becoming overall webmaster). Papers on hoverflies form a very substantial part of the contents of many issues.

Since we last reported, Roger has entered the entire backlog of paper records – perhaps 20,000 records. However, his version of Recorder is geriatric and there is an urgent need to upgrade to Recorder 2002. This is a job for the autumn, as it requires Stuart's ingenuity to sort out some of the issues of upgrade (Roger remains a luddite in all aspects of electronic data management!). Come the autumn, there will also be a push to get machine-readable datasets incorporated into the National dataset – we have a fair collection of downloads from a variety of recorders using spreadsheets etc. and will also trawl the bigger recording centres at that time.

In the meantime, Roger has prepared an index of items from past Hoverfly Newsletters. This has been a really interesting exercise as it is noteworthy just how many useful articles have appeared in the newsletter. Many have gone on to form additional information in the new version of **British**

Hoverflies. Having an index should enable readers to make much better use of the information. For example, who remembers Phil Withers' article on finding hoverflies early in the morning? On re-reading this, it struck us that this approach might be appropriate in recent hot weather: by 10 a.m. it is often so hot that nothing is around, yet those flies that are present must be feeding and moving at some time.

Analysing the statistics of contributions to the hoverfly newsletter also makes interesting reading as an indication of the level of activity and interest in contributing. Over the 37 issues, there have been 454 notes, articles and announcements. Not all have attributed authors, so one must assume a great deal of additional work by the various editors. Perhaps not surprisingly, David lliff's contributions far surpass all other authors with a total of 57 attributable notes, and many unattributable notes; he has now been editor since 1992 and has overseen the production of 23 issues. Alan Stubbs has been a consistent contributor, lying second with 37 notes and articles, with Graham Rotheray (21) and Colin Plant (20) lying in 3rd and 4th places respectively. We owe a huge vote of thanks to all four who have taken the trouble to provide interesting and relevant notes for our delectation. Looking back, we must also recognise the immense contribution Kenn Watt has made in providing updates on relevant hoverfly literature. At the same time, the number of single contributions (69) from readers shows just how widely contribution to the newsletters extends. A total of 339 species of hoverfly are discussed, including accounts of European and far eastern species. The top nine species mentioned are:

1	Episyrphus balteatus (35)	6	Syrphus ribesii (22)
2	Volucella zonaria (28)	7	Platycheirus albimanus (21)
3	Eristalis tenax (25)	8	Eristalis pertinax (20)
	Volucella inanis (25)	9	Syrphus vitripennis (19)
5	Xanthandrus comtus (23)		

We had hoped that the Forum's summer field meeting in Wiltshire would yield a multitude of records, and were disappointed to find that flies were very scarce there. The gaps may be filled to some degree, but numbers were terribly poor. What is the cause of such a dearth of hoverflies? Well, for those who are only interested in hoverflies, you can be reassured that all flies are in short supply – not just hoverflies! The answer to the problem is likely to lie in last year's drought, which seems to have substantially reduced numbers of all families of flies, and many other insects. Bearing in mind this spring's drought, next year may be little better – unless one goes north, so the DF meeting in Durham next July may provide a respite to poor recording days; let's hope so.

Not all is gloom, however. There are increasing reports of hoverflies that seem to be responding positively to warmer years. Our paper on *Volucella inanis* is out (in the BENHS Journal) and the one on *V. zonaria* will follow shortly in the same journal. Both species are on the move and we hope recorders will retain an interest sufficient to put notes in the Newsletter (and to send all records in due course). Interestingly, there are indications of other

species on the move. *Volucella inflata* is seemingly more common than ever before, with reports from Roger Payne in Essex that it is turning up much more widely than before. In Wiltshire and Gloucestershire it was noted at a variety of sites during Dipterists Week, and here in the East Midlands it is noticeable at many sites.

Another possible mover is *Epistrophe diaphana*, which turned up amongst the haul of hoverflies taken by participants in the Hoverfly identification course we ran at Preston Montford in early June. This is a considerable north-westerly extension of its range, but at the moment may not reflect northward movement. Also of note is *Brachyopa bicolor*, which seems to be reported more frequently in the records submitted to the recording scheme. Obviously, both species are potentially overlooked and therefore any perceived increases or spreads in distribution may simply reflect changing recorder effort or familiarity with the species.

TEN MINUTES IN THE LIFE OF DOROS PROFUGES

Barry Brigden 23 Galway Avenue. Bispham, Blackpool. FY2 0LL

Having not seen *Doros profuges* since 1997 when I was lucky enough to see two individuals (one on 31 May and one on 23 June) both at Yealand Hall Allotment, near Silverdale, in the Morecambe Bay area of Lancashire (Grid. ref.SD492761), I was delighted to spot one at 2.55 p.m. on 13 June 2004, at the same site and, in fact, in exactly the same place at that site as the two previous records, and where other dipterists have seen it in the past.

About two yards in from the main footpath, which forms the mouth of a fairly large glade I saw out of the corner of my eye a large black and yellow insect slowly flying just above the grass. I netted it to make absolutely certain it was *Doros* and to determine its sex. It was a male. The glade is a scrubby area with flower-rich grassland, mostly rock-rose, low-growing patches of bramble and hazel, and plentiful swards of bracken with some outcrops of limestone. Deciduous woodland, mostly oak, but with one conifer, surrounds the glade which faces south. On this occasion, however, the sun was not shining although it had been shining intermittently throughout the day. It was decidedly warm.

It has been suggested that *Doros*'s breeding regime is associated with ants and in particular with *Lasius fuliginosus*. I found no sign of this species. The glade, however, contained about six nest mounds of the yellow meadow ant, *Lasius flavus*. I saw no other species of ant.

I released *Doros* low down amongst the grass and watched its behaviour. Fortunately, I had with me a micro-cassette recorder and so I was able to speak directly into it to describe exactly what *Doros* was doing as it happened.

Upon release, after five or six seconds composing itself, it flew lazily and slowly in a zig-zag just above grass height to a bramble patch which was no more than knee high, and settled on a leaf, exposed in full view. There it proceeded to move its abdomen slowly up and down (does its wasp model do this, I wonder?), and at one point seemed almost to be standing on its head. It then proceeded to rub its hind legs against its abdomen, and then its hind legs together, presumably a cleaning process. It then continued to wave its abdomen, performed a little dance by moving forward slightly, then backwards and from side to side, and completed the show by turning a complete circle on the spot. It then rubbed its front legs together. The whole process took about a minute.

Having tired of this bramble leaf, it flew about four inches to an adjacent one and rested for about ten seconds before flying on to another leaf where it indulged in more abdomen waving, dancing and twirling. This happened six times before it flew from the bramble patch on to a blade of grass about fifteen inches away where it stayed for a couple of seconds, then back to a leaf of the same bramble patch, the abdomen waving and dancing continuing. Another flight of about twenty inches took it to the leaf of a low growing plant (species unknown) where it stayed briefly and, after rubbing its front legs together, it flew back to the bramble patch. On the bramble it again changed leaves a few times with yet more dancing and waving.

Suddenly, it flew off to a hazel shrub about three yards away and alighted on an exposed leaf and, of course, danced and waved its abdomen. Then, with no warning, it took off at speed, flying low down and in a direct line towards the back of the glade. This flight was in direct contrast to the slow, lazy zigzag flight observed earlier. At no time did *Doros* visit a flower, nor did any other insect come near it. I wondered for what purpose the insect danced and waved its abdomen so frequently. Is it some kind of survival technique, or what? And does this kind of behaviour occur at all times of the day or just at certain times in the afternoon? What are needed are more detailed observations spread throughout the day - a tall order considering the scarcity of the species.

I spent some time searching the glade hoping to see *Doros* again, but without success. I was disappointed, but felt privileged to have been able to spend ten minutes or so in the company of a very rare and most attractive hoverfly, even though it completely ignored me.

Footnote.

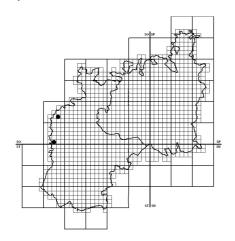
Since I wrote the above piece I have visited Yealand Hall Allotment on two more occasions, 22 June and 25 June, and despite a search of the site each time did not see *Doros*. On the second of the two visits, with Simon Hayhow, who first recorded *Doros* there in 1993, we did see two further species of ant in the glade where I saw *Doros* on 13 June. One, a very small rust-coloured species, was nesting there. Both of these ants have still to be identified.

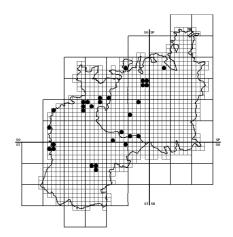
DRAMATIC INCREASE IN RHINGIA ROSTRATA IN GLOUCESTERHIRE SINCE 2000

David Iliff Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 9HN

In **Hoverfly Newsletter No. 30** (August 2000), I reported finding *Rhingia rostrata* in numbers on several dates in 2000 in Gotherington Wood on the Cotswolds. Until then records for this species in Gloucestershire had been confined to extreme west of the county, in sites near to the Wye Valley. At the time I wondered whether what I was witnessing was an example of the phenomenon described in **British Hoverflies** (Stubbs and Falk), namely the occasional appearance of *R. rostrata* in abundance in certain woods followed by the species not being seen again there for several years. However I subsequently received records for other East Gloucestershire sites in 2000, and it has been seen regularly in many parts of the county in every year since, including annually in Gotherington Wood. I saw a male in Gotherington Wood on 20 July 2004, just as this newsletter was about to go to press.

The maps below show the distribution of *Rhingia rostrata* in Gloucestershire up till the end of 1999 and from 2000 onwards.





R. rostrata pre 2000 records

R. rostrata 2000 onwards

Some readers may of course wonder whether I and other local providers of hoverfly records had merely failed to notice *R. rostrata* in previous years, overlooking it as the common species *R. campestris*. I can say with confidence that this was not the case; in common with most hoverfly enthusiasts, we are always on the look out for the rare species, and have always paid critical attention to every specimen of *Rhingia* in the hope that we might come across an example of *rostrata* among the numerous *campestris*.

SCAEVA SELENITICA OBSERVED IN LATE DECEMBER

Stuart Paston 25 Connaught Road, Norwich, NR2 3BP

I live close to a large cemetery, the oldest part of which is managed to "encourage and support wildlife".

The site is a key one in west Norwich for some of the more locally-occurring Syrphini, its wide range of trees and extensive infrequently cut grassland supporting a good fauna of hoverfly species dependent on aphids.

On 27 December I paid my last visit of 2003. The weather was bright and though not exceptionally mild (a forecast maximum of 8°) I found Diptera to be present at hotspots, on the south side of evergreen trees and shrubs. Among them were two hoverflies frequently found during the winter months - *Episyrphus balteatus* and *Meliscaeva auricollis*. However I was unprepared for a notable climax to an otherwise unremarkable recording year - a sighting of an individual of *Scaeva selenitica* basking on ivy foliage. It allowed a brief study before departing but I was unable to determine the sex.

British Hoverflies (Stubbs & Falk) makes no comment on the possibility of adults of this species overwintering. However Stuart Ball tells me that the Recording Scheme does hold a single record from January (1983) from West Sussex as well as a couple of March records. **Syrph the Net** also notes a February record from Germany and although it states that there has been no published record of an adult found hibernating, it gives the overwintering phase as "adult".

The species was already known to occur at this site, having been recorded there by me in 2002. It also turned up in my 'garden' the same year in unusual circumstances when a solitary wasp (*Ectemnius* sp.), attracted by the smell of rotting wood, dropped a paralysed male on the windowsill I was repairing.

DORSET HOVERFLY REPORT 2003

Ted and Dave Levy 9 Chilton Grove, Yeovil, Somerset, BA2I 4AN

Three species have been added to the Dorset list this year. *Eupeodes lapponicus* was found by Mick Parker, also *Cheilosia velutina* which has been on the list before, but was later re-identified and *Platycheirus aurolateralis*, a recent split in the *Platycheirus scutatus* group.

We have taken *E. lapponicus* at sites in Somerset and Devon. It is pleasing that it has now appeared in Dorset. In the field it is very similar to *E. luniger* but in close-up the dipped wing vein immediately determines it. It is fairly

common in coniferous woods on the continent, but is decidedly scarce in the UK.

Cheilosia velutina was originally listed for Arne by Martin Speight, but when keys improved, he later decided it was *C. proxima*. A specimen taken at Badbury Rings by M. Edwards was also later discounted by the collector and by Steven Falk. We are hopeful that Mick Parker's specimen will be our first genuine Dorset record.

124 species of Syrphidae were recorded in 2003, bringing the County List to an outstanding total of 213, probably second only to Hampshire in the UK, where the New Forest is such a great insect environment. In the 1970s, when we first moved into the south-west region, the County List was 168 species, so a good deal of progress has been made, greatly aided by the new simplified keys of Stubbs and Falk, which summoned up a new enthusiasm for hoverflies in the UK. **Dorset Hoverflies**, our booklet/atlas, published in 1992, is still available from DFRC, showing our first list for the County.

Our experience of the year has not been as good as Mr. Parker's. During the very hot dry weather of mid-summer hoverflies seemed very scarce and there was a long period when not even the common species could be seen in the garden, though this was made up for in some woodland sites, which were simply buzzing with insects. It was also noticeable that many flowering plants came into bloom much earlier and finished their flowering period sooner. A visit to Powerstock Common in late autumn was particularly disappointing, because of the lack of floral attractants for the insects.

The following are the more interesting species recorded during the year and our thanks go once again to Mick, but also to R. S. George and A. Philpott for their contributions.

Brachypalpoides lentus: Breach Wood 5 June 2003, Cranbourne Chase 1 June 2003.

Brachypalpus laphriformis: Delcombe Wood 31 May 2003.

Cheilosia albipila: Manswood 19 March 2003, Cranbourne Chase 21 March 2003

Cheilosia carbonaria: Deadmoor Common 10 June 2003 Cheilosia cynocephala: Stonehill Down 23 August 2003

Cheilosia lasiopa: Ashley Wood 4 May 2003 Cheilosia latifrons: Tadnoll 5 May 2003

Cheilosia longula: Powerstock Common 23 August 2003

Cheilosia semifasciata: Piddles Wood 8 May 2003 Cheilosia velutina: Wytch Farm 24 August 2003

Chrysotoxum elegans: Worbarrow Bay 13 August 2003 Chrysotoxum festivum: Broadstone 31 July 2003 Chrysotoxum vernale: Worbarrow Bay 28 May 2003

Criorhina floccosa: Delcombe Wood 31 May 2003

Criorhina ranunculi: Oakers Wood 30 March 2003, Granvilles Wooton 12 April 2003

Didea fasciata: Ashley Wood 4 May 2003

Eumerus omatus: Oatclose Wood 9 June 2003, Cranbourne Chase 28 June

2003

Eupeodes lapponicus: Heath Bottom 9 June 2003

Melangyna labiatarum: Chettlehead Coppice 28 May 2003. Scarce in Dorset

Microdon myrmicae: Deadmoor Common 10 June 2003

Orthonevra geniculata: Oakers Wood 30 March 2003. Scarce and local

Parasyrphus lineola: Cranbourne Chase 1 June 2003

Parasyrphus malinellus: Spyway 21 April 2003

Parhelophilus frutetorum: Granvilles Wooton 20 June 2003

Pipiza lugubris: Milbourne Wood 8 June 2003, Powerstock Common 23

August 2003

Platycheirus ambiguus: Oakers Wood 30 March 2003

Platycheirus aurolateralis: Garston Wood 28 April 2003, Piddles Wood 3 May

2003

Platycheirus occultus: Sutton Poyntz 11 June 2003, Warmwell Heath

2 August 2003

Platycheirus tarsalis: Piddles Wood 3 May 2003

Volucella inanis: Broadstone 2 August 2003, Bournemouth 7 August 2003

Xylota abiens: Newton Bay 29 June 2003

Xylota xanthocnema: Heath Bottom 9 June 2003

RECORDING HOVERFLIES IN OVERCAST WEATHER IN APRIL

Roger Morris 7 Vine Street, Stamford, Lincs, PE9 1QE

On 4 April 2004 I visited Wakerley Great Wood (Northants) on a rather changeable day that turned cloudy and windy. As might be expected, there was very little flying, but I persevered. Bearing in mind that solitary bees such as *Andrena clarkella* and *Andrena apicata* often frequent birch trunks, I decided to concentrate on looking for spring bees on tree trunks. My reward, in addition to finding *Andrena clarkella*, was a remarkable haul of hoverflies: two *Parasyrphus punctulatus* (male and female) – on birch and *Salix* trunks, a pair of *Eristalis pertinax* in copula and a single male on a *Salix*, a female *Criorhina ranunculi* and a male *Syrphus torvus* on *Salix*. So far I have been too inert to test whether this was a one-off event or typical of hoverfly behaviour in early spring. The haul on this occasion was quite encouraging, and suggests that there is scope for greater recording activity in early spring – maybe others would like to try this approach too?

TESTING THE RANGE OF VOLUCELLA INFLATA

Roger Morris 7 Vine Street, Stamford, Lincs, PE9 1QE

Readers may recall that *Volucella inflata* is strongly attracted to flowers of dogwood *Cornus sanguinea* and wild privet *Ligustrum vulgare* (Morris & Ball, 2004)), both of which are frequent on the limestone around Stamford. Bearing in mind reports that *V. inflata* is becoming more frequent (as noted in this

newsletter), I visited a variety of woodlands around Stamford in mid-June (2004) in an attempt to establish its current northerly range.

From a limited number of site visits, many of which successfully located *V. inflata* by visiting patches of dogwood and privet, it seems likely that its range extends some 20km further north. The most northerly record I managed was Twyford Wood (SK9423, 9 June 2004) where a single individual was noted; judging by its behaviour of rapid flight through and around the bush this was a male. Other woods in this area certainly support *V. inflata* as I also noted individuals in Pickworth Great Wood (SK9814, 9.vi.2004 & 14.vi.2004) at dogwood, and Newell Wood (TF010142, 9.vi.2004) at wild privet.

Searching west of Stamford revealed *V. inflata* at Wakerley Great Woods (SP9698, 9.vi.2004), but failed at Priors Coppice (SK8305), and to the east of Stamford at Bourne Woods (TF0720). On the basis of single visits to these failed sites it remains a possibility that *V. inflata* does occur at them, so more work is needed next year.

Seeking possible sites further north, I also looked at the woodlands around Belvoir Castle (SK8433), but the geology changes in this area, with an accompanying absence of dogwood and wild privet. The woodland also appears to be more recent and less suitable for *V. infata*. Needless to say, a visit on 15 June 2004 was unsuccessful.

These visits by no means confirm the northerly range of *V. inflata*, but do provide a possible boundary for its current distribution. Similar studies across the overall range of *V. inflata* might help to establish its current range and provide a baseline against which any possible range extension might be examined.

Reference:

Morris R.K.A. & Ball, S. G., 2004. Hoverfly (Diptera, Syrphidae) flower visit records from Old Sulehay Forest, Northamptonshire. *Dipterists Digest* [second series] **10**: 85-87.

AN EXCEPTIONAL ABUNDANCE OF PLATYCHEIRUS DISCIMANUS

Roger Morris 7 Vine Street, Stamford, Lincs, PE9 1QE

Although April 2004 was generally very disappointing for hoverfly recording, with few flies about and weather less than ideal, I was surprised to find *Platycheirus discimanus* on two separate occasions in the area around Stamford. The first was on a rather changeable day at Wakerley Great Wood (SP963983, 12.iv.2004) at *Salix* (*cinerea*?) blossom. On this occasion, there were large numbers of *Parasyrphus punctulatus* (5m, 7f) together with a small dark rather dumpy looking hoverfly that I did not recognise. These turned out

to be *P. discimanus* and I ended with a series of one male and five females. Four days later on a similar day in Southey Wood (TF1003, 16.iv.2004), again at *Salix* (*cinerea*?) blossom, my first sweep of the flowers yielded another small dark dumpy *Platycheirus*: another *P. discimanus*.

The last time I saw *P. discimanus* was in 1988, although not for want of looking. A gap of 16 years is in itself not particularly significant if a species is genuinely scarce, but it does seem noteworthy that after such a gap, this species turned up both in numbers and at more than one site. At the moment, I suspect that this reflects the recording area, as Alan Stubbs (pers com.) has also taken *P. discimanus* in this area. However, the coincidence of records within a relatively short period perhaps indicates that *P. discimanus* has a relatively short emergence period and will only be encountered by chance even though it may be more widely distributed.

On the issue of short emergence periods, I also note that *P. ambiguus* was exceptionally abundant in the Stamford area in 2003. Between 12-17 April 2003, I noted it at six sites, yet this year it only occurred at two sites on 24 and 25 April (2004).

INTERESTING RECENT RECORDS

Callicera aurata: Pope's Hill, Gloucestershire (SO683148), 13 June 2004; John Phillips.

Xanthogramma citrofasciatum: 6 males flying together just above grass height; Howe Ridding Wood, Cumbria (SD434878), 17 May 2004; Barry Brigden.

Brachypalpus laphriformis: 1 male, Fairy Steps, New Beetham, Cumbria (SD487789), 22 May 2004; Barry Brigden.

Trichopsomyia flavitarsis: 1 female, Gait Barrows NNR, New Silverdale, Lancashire (SD4777), 26 May 2004; Barry Brigden.

Criorhina asilica: 1 male, Howe Ridding Wood, Cumbria (SD434878), 17 May 2004; Barry Brigden.

Microdon mutabilis: 1 female, Gait Barrows NNR, New Silverdale, Lancashire (SD4888), 24 May 2004; Barry Brigden.

Platycheirus discimanus: Rodborough Common, Gloucestershire (SO8403) 15 April 2004, hovering over path close to blackthorn bush in company with *P.ambiguus*; 5th county record; first since 1988; David Gibbs.

Volucella zonaria: Stourbridge, West Midlands (SO8983), 14 July 2004, nectaring on *Buddleia* in urban garden; most north-westerly UK record to date; Brett Westwood.

REVIEW: BBC WILDLIFE MAGAZINE POCKET GUIDE ON HOVERFLIES AND THEIR RELATIVES

Editor

During the last year or so the BBC Wildlife Magazine has included each month a free pocket guide in the form of an illustrated leaflet. No. 10 in the series is entitled **Hoverflies and their relatives** and was enclosed in the April 2004 issue of the magazine. Copies of this guide and others in the series are, I understand, still obtainable separately (though no longer free). This particular guide covers hoverflies and a selection of larger Brachycera and Conopids. It is illustrated by Chris Shields and the selection of species and captions are by Richard. A. Jones.

The guide is elegantly produced in a convenient size and format, and the illustrations are attractive and accurate. As the circulation of the BBC Wildlife Magazine is, I suspect, considerably larger than any other publication in which hoverflies are mentioned, the publication of this guide should in theory be welcomed because of its potential to spread interest in hoverflies and the other families among a wider population of wildlife enthusiasts. Unfortunately, however, in spite of its virtues, I cannot give the guide an unqualified recommendation. It is to be hoped that readers of this newsletter may, as a result of the publication of the guide, receive records from new observers of hoverflies; such records should be treated with caution, especially if they include large numbers of *Cheilosia fraterna*, or sightings of *Eristalinus aeneus* from woodland or of *Ferdinandea cuprea* from coastal sites.

All species illustrated in the guide have been given English language names (more than one of these in the case of some species). It is likely that the authors were under pressure to include such names, although in the subsequent guide in the series, on Hymenoptera, one bumblebee and two solitary bees have been included without having been given English names. The names used for the larger Brachycera are taken from **British Soldierflies** and their Allies (Stubbs and Drake); those given to the hoverflies include many of those coined by Ken Preston-Mafham (these were listed in **Hoverfly Newsletter No. 26**) with a number of additional ones.

There will probably never be universal agreement over the merits or otherwise of vernacular names; however I believe that if they are used they should be applied systematically and reflect the position of species in the phylogenic context of the family; in other words species of the same genus should where possible be given closely related names. This has been the practice for the names given to the larger Brachycera by Stubbs and Drake and for British Odonata, and a similar principle was followed for German language names for hoverflies in Kurt Kormann's **Schwebfliegen Mitteleuropas** (1988). In contrast the names used for hoverflies in the BBC guide do not follow such a

principle; in some cases closely related names are used for species from different genera: the "gold-belted hoverfly" is Xylota segnis, the "yellow-belted hoverfly" is Chrysotoxum bicinctum, the "orange-belted hoverfly" is Tropidia scita, the "red-belted hoverfly" is Brachypalpoides lentus, the "white-belted hoverfly" is Platycheirus rosarum, while Volucella zonaria is merely the "belted hoverfly". Conversely opportunities for giving closely related names to similarly looking species of the same genus are not taken: Leucozona glaucia is called the "blue-banded hoverfly" and Leucozona laternaria the "greyspotted hoverfly", and the two Scaeva are the "pied hoverfly" (S. pyrastri) and the "large lunar hoverfly" (S. selenitica) - the "lunar hoverfly" is Eupeodes luniger. In some instances the choice of names does reflect generic relationships; for example some of the Chrysotoxum are called "wasp hoverflies" - C. cautum is the "common wasp hoverfly" - but were the compilers aware that "in another part of the forest" the name "wasp hoverfly" has been chosen for the BAP action plan species Doros profuges (a species not appearing in the guide)? One of the three Cheilosia species included in the guide is Cheilosia fraterna, which is called the "buttercup hoverfly", a risky choice of name as, while this species is certainly associated with buttercups it is a relatively local species, and the rather similarly-built Cheilosia albitarsis, sensu lato, is probably more likely to be encountered in numbers on buttercups.

The questionable choice of names is a less serious defect than the mistakes in the guide. Fortunate is the editor whose publication goes to press without at least one overlooked error. However the guide contains rather too many for comfort. The illustration captioned *Ferdinandea cuprea* in fact shows *Eristalinus aeneus* and vice versa; *Volucella inanis* is called "the orangebrowed hoverfly", the name which was chosen by Ken Preston-Mafham for *V. inflata*; *Chrysotoxum verralli* appears erroneously as "*Chrysotoxum verralii*", with Verrall's name similarly misspelt in the English name for the species, which is given as "Verral's wasp hoverfly"; *Epistrophe eligans* (called "the elegant hoverfly") is misspelt as "*Epistrophe elegans*"; and *Dasysyrphus tricinctus* appears in the guide as "*Eupeodes tricinctus*".

ADVANCE NOTICE: 3RD INTERNATIONAL SYRPHIDAE WORKSHOP (SEPTEMBER 2005)

Menno Reemer, on behalf of the Dutch Syrphidae Committee, has provided advance notice of the 3rd International Syrphidae Workshop. This will take place in the Netherlands on 2, 3 and 4 September 2005, probably in the National Museum of Natural History in Leiden. More details will be announced later.

LITERATURE REVIEWS

Until Bulletin No 30, the Hoverfly Newsletter included an item on recent literature, compiled by Kenn Watt. Kenn has since ceased this compilation because he no longer has access to an abstracting service. At the moment I have access to abstracting services and have downloaded some 3,500 references from 1978 onwards, secured by searching for references containing Syrphidae within the key words. Although Kenn's last submission comprised a range of references spanning 1996 to 1998, I have broken the data into yearly blocks and have not attempted to delete those references listed in Kenn's previous submissions.

So far I have formatted reports from 1997 to 2001, and by the time this newsletter reaches readers I will have completed the process to 2004. I propose to provide them in yearly blocks to the Hoverfly Newsletter for inclusion as one year per issue, meaning that there will be a delay of around five years in getting this process up to date. In the meantime, however, those readers with access to the internet should be able to download all of the updates in the not too distant future. It is possible that a cut-down version of "recent literature" could be supplied to the Newsletter if readers prefer (comments please – would readers prefer European only or, more specifically, taxonomic only?)

In formatting the data, originally downloaded as text files, I have tried to turn the author list into a relatively constant format. That leads to some problems with Chinese and Japanese names, and it is possible that they are incorrectly cited. If so, I apologise to authors concerned. Similarly, the range of references in non-English formats is such that I have had difficulty separating books from journals, leading to further potential glitches.

Roger Morris

Literature for 1997 Compiled by Roger Morris

Aston, A., 1997. Recurrence of *Callicera aurata* Rossi (= aenea Fabr.) (Dip.: Syrphidae) in north Hampshire. *Entomologist's Record and Journal of Variation* **109**(5-6): 143

Auad, A.M., Bueno, V.H.P., Kato, C.M. & Gamarra, D.C., 1997. Occurrence and population fluctuation of predators and parasitoids of I (*Appelia*) schwartzi (Borner) (Homoptera: Aphididae) on peach trees, in Jacui, MG. *Anais da Sociedade Entomologica do Brasil* **26**(2): 257-263

Aslamkhan, M., Safdar, S. & Azizullah, 1997. Biodiversity of Syrphidae of Pakistan *Biologia* (Lahore) **43**(1): 19-25

Barkalov, A.V. & Pek, L.V., 1997. Revision of the genus Cheilosia (Diptera, Syrphidae) from the fauna of Central Asia. Report 1. *Zoologicheskii Zhurnal* **76**(10): 1168-1178

Barkalov, A.V. & Pek, L.V., 1997. *Cheilosia* (Diptera, Syrphidae) from Central Asia. 2. A key. *Zoologicheskii Zhurnal* **76**(12): 1370-1380

Barkalov, A.V. & Stahls, G., 1997. Revision of the Palaearctic bare-eyed and black-legged species of the genus *Cheilosia* Meigen (Diptera, Syrphidae). *Acta Zoologica Fennica* **208**: 1-74

- Bicik, V. & Laska, P., 1997. Does genus *Ectemnius* (Hymenoptera, Crabronidae) use Peckhamian mimicry for hunting similarly coloured syrphids (Diptera, Syrphidae)? *Acta Universitatis Palackianae Olomucensis Facultas Rerum Naturalium Biologica* **35**: 7-11
- Binding, J., 1997. Rediscovery of a lost Lincolnshire hoverfly after 109 years. *Lincolnshire Naturalist* **24**(2): 92-93
- Bradescu, V., 1997. New information concerning the syrphid fauna (Diptera: Syrphidae) of Romania. *Travaux du Museum National d'Histoire Naturelle "Grigore Antipa"* **39**: 183-186
- Brandes, D. & Schrei, J., 1997. Population biology and ecology of Berteroa incana (L.) DC. *Braunschweiger Naturkundliche Schriften* **5**(2): 441-465
- Branquart, E., Hemptinne, J-L., Bauffe, C. & Benfekih, L. 1997. Cannibalism in *Episyrphus balteatus* (Dipt.: Syrphidae). *Entomophaga* **42**(1-2): 145-152
- Bowden, J., 1997. *Didea fasciata* Macquart *and Pipizella maculipennis* Meigen (Diptera, Syrphidae) rediscovered in N.E. Essex. *Entomologist's Monthly Magazine* **133**: 204
- Burgio, G. & Daccordi, M., 1997. Diptera Syrphidae in the Castiglione dei Pepoli (Italy) Abetaia forest. *Museo Regionale di Scienze Naturali Bollettino* (Turin) **15**(1): 63-73
- Burgio, G., Ferrari, R. & Boriani, L., 1997. Community analysis of hoverflies (Diptera, Syrphidae) in farms with different hedges in the Bologna province (Italy). *Bollettino dell'Istituto di Entomologia "Guido Grandi" della Universita degli Studi di Bologna* **51**: 69-77
- Chen, K. & Hopper, K.R., 1997. *Diuraphis noxia* (Homoptera: Aphididae) population dynamics and impact of natural enemies in the Montpellier region of southern France. *Environmental Entomology* **26**(4): 866-875
- Cheng, X. & Huang, C., 1997. Diptera: Syrphidae. Yang X. [Ed.]. *Insects of the Three Gorge Reservoir area of Yangtze river. Part 2.* Chongqing Publishing House. Chongqing. i-x, 975-1847. Chapter pagination: 1480-1490
- Cheng, X-y. & Huang, C-m., 1997. The syrphids from the tropical forest region of Xishuangbanna, Yunnan Province (Diptera: Syrphidae). *Acta Zootaxonomica Sinica* 22(4), Oct 1997: 421-429
- Chitra D.L., & Singh, T.K., 1997. Succession of aphids and their relation with syrphid predators of knol-khol. *Shashpa* **4**(2): 127-130
- Claussen, C. & Hayat, R., 1997. A new species of the genus *Neoascia* Williston, 1886 (Diptera, Syrphidae) from north-east Turkey. *Studia Dipterologica* **4**(1): 215-218
- Claussen, C. & Hayat, R., 1997. A new species and new records of the genus *Pipizella* Rondani, 1856 (Diptera, Syrphidae) from Turkey. *Studia Dipterologica* 4(2): 447-452

- Coult, T., 1997. Hoverflies at Malton. *Vasculum* 82(2): 25-32
- de Arruda, V.L.V., 1997. The use of floral resources by syrphids (Diptera: Syrphidae) and their interactions with other visitors. *Naturalia* (Rio Claro) **22**: 163-178
- Deshpande, S.V., Karanjkar, R.R. & Waghmare, U.M., 1997. Sorghum shootfly rearing technology and collection of dipterous species. *Journal of Maharashtra Agricultural Universities* **21**(3): 468-469
- Dobson, J., 1997. An early record of *Scaeva selenitica* (Meigen) (Syrphidae) from the Brent Reservoir, Middlesex. *Dipterists Digest* Second Series **4**(2): 64
- Dobson, J., 1997. Oviposition in *Epistrophe diaphana* (Syrphidae). *Dipterists Digest* Second Series 4(1): 47
- Dolezil, Z. & Rozkosny, R., 1997. Diptera Syrphidae, hover flies. *In Nilsson*, Anders [Ed.]. *Aquatic insects of North Europe. A taxonomic handbook. Volume 2: Odonata Diptera*. Apollo Books, Stenstrup. pages 347-362
- Drees, M., 1997. Hymenopteran mimicry of sawflies (Diptera: Syrphidae). *Entomologische Zeitschrift* **107**(12): 498-503
- Drees, M., 1997. On the hover fly fauna of Hagen region (Diptera: Syrphidae). *Abhandlungen aus dem Westfaelischen Museum fuer Naturkunde* **59**(2): 1-63
- Dussaix, C., 1997. Provisional checklist of the syrphid fauna of the Sarthe department (France) with notes on the first stades of some species (Diptera: Syrphidae). *Bulletin de la Societe Entomologique de France* **102**(2): 159-169
- Dussaix, C., 1997. The breeding of *Mallota cimbiciformis* (Fallen, 1817) (Diptera, Syrphidae) in France (Sarthe). *Entomologiste* (Paris) 53(3): 99-103
- Dussaix, C., 1997. *Myolepta vara* (Diptera, Syrphidae) reared in France (Dep. Sarthe). *Dipterists Digest* Second Series 4(1): 18
- Duty, I., 1997. First record of *Helophilus affinis* Wahlberg, 1844 (Dipt., Syrphidae) for Mecklenburg-Vorpommern. *Entomologische Nachrichten und Berichte* **41**(3): 200-201
- Duty, I., 1997. The Syrphidae (Diptera) of the Raddatz Collection of Rostock University. *Archiv der Freunde der Naturgeschichte in Mecklenburg* **36**: 227-252
- Erickson, K.S., Morse, D.H., 1997. Predator size and the suitability of a common prey. *Oecologia* (Berlin) **109**(4): 608-614
- Francardi, V. & de Silva, J., 1997. On *Myzus cerasi* (F.) and its antagonists within timber plantations of *Prunus avium* L. in central Italy. *Redia* **80**: 73-85
- Freier, B., Gosselke, U. & Rappaport, V., 1997. Investigation on the impact of neighbouring crops on the occurrence of aphid specific predators in a winter wheat field. *Archives of Phytopathology and Plant Protection* **31**(1): 63-73

- Gauld, I., 1997. The Ichneumonidae of Costa Rica, 2. Introduction and keys to species of the smaller subfamilies, Anomaloninae, Ctenopelmatinae, Diplazontinae, Lycorininae, Phrudinae, Tryphoninae (excluding Netelia) and Xoridinae, with an appendix on the Rhyssinae. *Memoirs of the American Entomological Institute* (Gainesville) **57**: i-vii, 1-485
- Goeldlin de Tiefenau, P., 1997. The genus *Trichopsomyia* Williston, 1888 (Diptera: Syrphidae) in Europe with description of a new species, known for many years. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* **70**(1-2): 191-201
- Goeldlin de Tiefenau, P. & Speight, M.C.D., 1997. Complement to the faunistic list of Syrphidae (Diptera) from Switzerland: synthesis of new or poorly known species. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* **70**(3-4): 299-309
- Gorb, S.N., 1997. Armored cuticular membranes in Brachycera (Insecta, Diptera). *Journal of Morphology* **234**(3): 213-222
- Grayson, A., 1997. The hoverfly (Diptera: Syrphidae) collection of Clifford J. Smith. *Yorkshire Naturalists Union Bulletin* 27: 5-6
- Grayson, A., 1997. The behaviour of male *Xanthogramma citrofasciatum*. *Hoverfly Newsletter* **23**: 7
- Greco, C.F., 1997. Specificity and instar preference of *Diplazon laetatorius* (Hym.: Ichneumonidae) parasitizing aphidophagous syrphids (Dipt.: Syrphidae). *Entomophaga* **42**(3): 315-318
- Greco, C.F., 1997. Phenology and habitat selection of the aphidophagous syrphid species most frequently found in crops and pastures in the Province of Buenos Aires, Argentina. *Entomophaga* **40**(3-4): 317-320
- Gritskevich, D.I., 1997. Activity and trophic relations of the hoverflies (Diptera: Syrphidae) in the Myaochan Range. *Chteniya Pamyati Alekseya Ivanovicha Kurentsova* 7: 125-133
- Hart, A.J. & Bale, J.S., 1997. A method of massrearing the hoverfly *Episyrphus balteatus* (Diptera, Syrphidae). *Dipterists Digest* Second Series **4**(1): 1-3
- Hart, A.J. & Bale, J.S., 1997. Evidence for the first strongly freeze-tolerant insect found in the U.K. *Ecological Entomology* **22**(2): 242-245
- Hart, A.J. & Bale, J.S., 1997. Cold tolerance of the aphid predator *Episyrphus balteatus* (DeGeer) (Diptera, Syrphidae). *Physiological Entomology* **22**(4): 332-338
- Hart, A.J., Bale, J.S. & Fenlon, J.S., 1997. Developmental threshold, day-degree requirements and voltinism of the aphid predator *Episyrphus balteatus* (Diptera: Syrphidae). *Annals of Applied Biology* **130**(3): 427-437
- Hartfield, C.M., 1997. Aphid natural enemies in United Kingdom plum orchards. *IOBC-WPRS Bulletin* **20**(6): 87-92

- Harusawa, K. & Katsura, K., 1997. *Spilomyia permagna* collected in the Kinki district. *Hana Abu* 4:
- Harusawa, K., 1997. Syrphidae and Trypetidae collected by Kaoru Haga. *Hana Abu* **3**: 56
- Haslett, J.R., 1997. Insect communities and the spatial complexity of mountain habitats. *Global Ecology and Biogeography Letters* **6**(1): 49-56
- Hauser, M. & Hurkmans, W.A., 1997. A new species of *Merodon* from Tunisia (Diptera: Syrphidae). *Entomologische Zeitschrift* **107**(10): 423-428
- Hayat, R., 1997. *Sphegina (Sphegina) alaoglui*, a new hover-fly from north-eastern Turkey (Diptera: Syrphidae).
- Zoology in the Middle East 14: 109-113
- Hayat, R. & Claussen, C., 1997. A new species and new records of the genus *Paragus* Latreille, 1804 from Turkey (Diptera: Syrphidae). *Zoology in the Middle East* 14: 99-108
- He, J-L. & Chu, X., 1997. Two new species of Xylotinae from Mt. Taibai, China (Diptera: Syrphidae). *Acta Zootaxonomica Sinica* **22**(1): 103-107
- He, J-L., Zhang, C. & Sun, X., 1997. A new species of Xylota from Changbai Shan, China (Dipt.: Syrphidae). *Wuyi Science Journal* **13**: 31-33
- He J-L., Zhang C., & Sun X., 1997. A new species of *Eupeodes* (Diptera: Syrphidae) from Liaoning. *Journal of Shanghai Agricultural College* **15**(2): 125-127
- Hewitt, S., 1997. Flies: Diptera. Birds and Wildlife in Cumbria 1996: 87-88
- Holinka, J., 1997. Occurrence of hoverflies (Diptera, Syrphidae) in the environs of Pardubice. *Folia Facultatis Scientiarum Naturalium Universitatis Masarykianae Brunensis Biologia* **95**: 47-55
- Holinka, J., Mazanek, L., Vysoky, V., Laska, P., Martinovsky, J. & Kula, E., 1997. Syrphidae. Folia Facultatis Scientiarum Naturalium Universitatis Masarykianae Brunensis Biologia 95: 224-226
- Holloway, G.J., Marriott, C.G. & Crocker, H.J., 1997. Phenotypic plasticity in hoverflies: the relationship between colour pattern and season in *Episyrphus balteatus* and other Syrphidae. *Ecological Entomology* 22(4): 425-432
- Hovemeyer, K., 1997. Egg laying in the leaf-mining hoverfly *Cheilosia fasciata* (Diptera: Syrphidae): do females select large leaves for oviposition, and does it matter? *Zoologische Beitraege* **37**(2): 171-184
- Hurkmans, W. & Hayat, R., 1997. Ethology and ecology of *Merodon* (Diptera, Syrphidae) in Turkey 2: descriptions of new species and notes on other syrphid flies. *Dipterists Digest* Second Series **3**(2): 62-78 Ichikawa, A., 1997. Small hymenopterous parasites from hoverfly pupae. *Hana Abu* **4**: 51
- Ichikawa, A., 1997. Small hymenopterous parasites from hoverfly pupae. *Hana Abu* **4**: 51

- Ikezaki, Y., 1997. Four hoverflies from Tsushima Isl. (Syrphidae). *Hana Abu* **4**: 37
- Ikezaki, Y., 1997. Two little known hoverflies from Japan (Syrphidae). *Hana Abu* 4: 37-38
- Ikezaki, Y. & Ikezaki, K., 1997. Notes on *Sphaerophoria viridaenea* from Japan (Syrphidae). *Hana Abu* **4**: 35-36
- Ikezaki, Y. & Negoro, H., 1997. Hoverflies from Toyama Prefecture, Hokuriku, Japan (1). *Bulletin of* the Toyama Science Museum 20: 29-33
- Iwai, T., 1997. Ovipositing behavior of *Eoseristalis kyokoae* Kimura. *Hana Abu* **4**: 33-34
- Ikezaki, Y., 1997. *Chalcosyrphus ambiguus* (Shiraki) from Kyushu. *Hana Abu* **3**: 51
- Ikezaki, Y., 1997. The hoverflies of Mt. Tatera in Tsushima. *Hana Abu* **3**: 51
- Ikezaki, Y. & Ichikawa, A., 1997. *Merodon scutellaris* from Shikoku (Syrphidae). *Hana Abu* **3**: 50
- Ikezaki, Y. & Negoro, H., 1997. *Volucella bombylans* from Toyama Prefecture (Diptera, Syrphidae). *Hana Abu* **3**: 49-50
- Ikezaki, Y. & Nakamura, S., 1997. Hoverflies from Hiroshima Prefecture (Diptera: Syrphidae) (3). Miscellaneous Reports of the Hiwa Museum for Natural History 35: 111-116
- Iwai, T., 1997. The seasonal change of abdominal color patterns in *Episyrphus balteatus* deGeer (Diptera, Syrphidae) observed in Ono Town, Yamada Town and Kagoshima City. *Hana Abu* 3: 9-13
- Iwai, T., 1997. Ovipositing behavior of *Eoseristalis kyokoae* Kimura. *Hana Abu* **4**: 33-34
- Jarlan, A., De Oliveira, D. & Gingras, J., 1997. Pollination by *Eristalis tenax* (Diptera: Syrphidae) and seed set of greenhouse sweet pepper. *Journal of Economic Entomology* **90**(6): 1646-1649
- Jarlan, A., De Oliveira, D. & Gingras, J., 1997. Effects of *Eristalis tenax* (Diptera: Syrphidae) pollination on characteristics of greenhouse sweet pepper fruits. *Journal of Economic Entomology* **90**(6): 1650-1654
- Jarlan, A., de Oliveira, D. & Gingras, J., 1997. Pollination of sweet pepper (*Capsicum annuum* L.) in green-house by the syrphid fly *Eristalis tenax* (L.). *Acta Horticulturae* (Wageningen) **437**: 335-339
- Jentzsch, M., 1997. Notable Syrphidae records in the Forstwerder nature reserve Dipt.). *Entomologische Nachrichten und Berichte* **41**(3): 165-166
- Jentzsch, M., 1997. Merodon rufus MG., 1838 (Dipt., Syrphidae) in the eue Gohle nature reserve. Entomologische Nachrichten und Berichte 41(3): 205-206
- Jentzsch, M., 1997. Hoverfly records from the Horle valley in south east Harz (Dipt., Syrphidae). Entomologische Mitteilungen Sachsen-Anhalt 5(1) 1997: 20-25

- Joshi, S., Venkatesan, T. & Rao, N.S., 1997. Host range and predatory fauna of Aphis craccivora Koch (Homoptera: Aphididae) in Bangalore, Karnataka. *Journal of Biological Control* 11(1-2): 59-63
- Katsura, K., 1997. On the Data-up Picture Book of Syrphidae Vers 1. *Hana Abu* 4: 41-44
- Katsura, K., 1997. Small body mass of Dasysyrphus bilineatus (Matsumura). *Hana Abu* **4**: 49
- Katsura, K., 1997. *Chrysotoxum nigroscutellum* Shiraki et Edashige collected in Nagano Prefecture. *Hana Abu* **4**: 49
- Katsura, K., 1997. *Temnostoma jozankeanum* collected in Honshu. *Hana Abu* 4: 50
- Katsura, K., 1997. *Rhingia laevigata* visiting human dung. *Hana Abu* 4: 50
- Katsura, K., 1997. Sound producing behavior of *Ferdinandea cuprea* (Scopoli). *Hana Abu* **3**: 14
- Katsura, K., 1997. An investigation of hoverflies in winter in Awajishima Island. *Hana Abu* **3**: 53
- Kesel, A.B., 1997. Some aspects of the biomechanical structure of the insect wing. *Biona Report* 11: 89-114
- Khalil, Z., Whalley, W.M., & Sullivan, M.S., 1997. Some bacteria, fungi and yeast isolated from free-living *Episyrphus balteatus* (Diptera, Syrphidae). *Dipterists Digest* Second Series **3**(2): 56-58
- Kimura, T., 1997. First record of a hoverfly (Diptera Syrphidae) from Honshu. *Hana Abu* **3**: 3-4
- Kimura, T., 1997. First record of a hoverfly from Hokkaido, Japan. *Hana Abu* **4**: 17-18
- Kimura, T. & Ikezaki, Y., 1997. Is *Criorhina asilica* truly in Japan? and on the related species in Japan. *Hana Abu* **4**: 19-20
- Kleintjes, P.K., 1997. Midseason insecticide treatment of balsam twig aphids (Homoptera: Aphididae) and their aphidophagous predators in a Wisconsin Christmas tree plantation. *Environmental Entomology* **26**(6): 1393-1397
- Knuttel, H. & Lunau, K., 1997. Colored eyes in insects, Mitteilungen der Deutschen Gesellschaft fuer Allgemeine und Angewandte Entomologie 11(1-6): 587-590
- Kopf, A., Rank, N.E., Roininen, H. & Tahvanainen, J., 1997. Defensive larval secretions of leaf beetles attract a specialist predator *Parasyrphus nigritarsis*. *Ecological Entomology* **22**(2): 176-183
- Kralikova, A., 1997. An abnormality of the antenna of *Cheilosia rhynchops* (Diptera, Syrphidae). *Entomofauna Carpathica* **9**(4): 125-126
- Kralikova, A., 1997. *Polygonum aviculare* L. a possible biocoridor of the hoverflies (Diptera, Syrphidae) in alfalfa cultures. *Rosalia* 12: 185-189

- Krause, U., 1997. Population dynamics and overwintering of hoverflies (Dipt.: Syrphidae) in northern Germany in relation to small and large-scale landscape structure. *Agraroekologie* 22: 1-150
- Kula, E., 1997. Hoverflies (Dipt.: Syrphidae) of spruce forest in different health condition. *Entomophaga* **42**(1-2): 133-138
- Kula, E. & Laska, P., 1997. Hoverflies (Diptera, Syrphidae) in forest stands of Decinsky Sneznik Hill. *Folia Facultatis Scientiarum Naturalium Universitatis Masarykianae Brunensis Biologia* **95**: 97-103
- Kunin, W.E., 1997. Population size and density effects in pollination: pollinator foraging and plant reproductive success in experimental arrays of *Brassica kaber. Journal of Ecology* **85**(2): 225-234
- Kuznetzov, S.Y., 1997. Five new Palaearctic Syrphidae (Diptera). *Dipterological Research* **8**(4): 199-213
- Kuznetzov, S.Y., Buhcalo, S.P. & Tikhmenev, A.E., 1997. Records of hoverflies (Diptera, Syrphidae) from the Magadan. *Dipterological Research* 8(2): 117-118
- Laurence, B.R., 1997. Orkney hoverflies two more records. *Orkney Field Club Bulletin* 1997: 30
- Lehtila, K. & Strauss, S.Y., 1997. Leaf damage by herbivores affects attractiveness to pollinators in wild radish, *Raphanus raphanistrum. Oecologia* (Berlin) **111**(3): 396-403
- Levy, E.T. & Levy, D.A., 1997. Dorset Hoverfly report 1996. *Proceedings of the Dorset Natural History & Archaeological Society* **118**: 178-179
- Li, Q., 1997. Descriptions of a new record genus and a new species of Syrphidae (Diptera) from China. *Acta Entomologica Sinica* **40**(4): 413-416
- Litt, R., 1997. Observation on some rare syrphids of western Europe (Diptera Syrphidae). *Lambillionea* **97**(3) (Tome 1): 361-364
- Lunau, K. & Wacht, S., 1997. Innate flower recognition in the hoverfly *Eristalis tenax* L. *Mitteilungen der Deutschen Gesellschaft fuer Allgemeine und Angewandte Entomologie* 11(1-6): 481-484
- Maca, J., 1997. Interesting findings of Diptera Cyclorrhapha from Southern Bohemia. *Sbornik Jihoceskeho Muzea v Ceskych Budejovicich Prirodni Vedy* **37**(1-2): 50-52
- Macgowan, I. Gilbert, F.S & Rotheray, G.E., 1997. The status of *Melanostoma dubium* (Diptera, Syrphidae). *Dipterists Digest* Second Series **3**(2): 79-87
- Malkeshi, H. & Kheiabani, N., 1997. The first record of *Diplazon laetatorius* T. (Hym., Ichneumonidae) in Iran. *Applied Entomology and Phytopathology* **64**(1-2): 72, 25
- Markova, E., 1997. Syrphid flies in natural grass ecosystems of some areas of the Kraishte region (Bulgaria) (Insecta, Diptera, Syrphidae). *Spixiana* **20**(1): 73-79

- Matoba, I., 1997. A report on the second trip for the investigation of hoverflies (an investigation of hoverflies visiting flowers in late autumn). *Hana Abu* **3**: 54-55
- Mazanek, L. & Bicik, V. 1997. Syrphids (Diptera, Syrphidae) of Litovelske Pomoravi and the Vsetinske vrchy Hills. *Folia Facultatis Scientiarum Naturalium Universitatis Masarykianae Brunensis Biologia* **95**: 115-128
- Michelena, J.M. Sanchis, A., 1997. Evolution of parasitism and beneficial fauna on aphids in a citrus orchard. *Boletin de Sanidad Vegetal Plagas* **23**(2): 241-255
- Mineo, G., Sinacori, A., Rizzo, M.C. & Massa, B., 1997. On the arthropod fauna of *Parietaria* spp. (Urticaceae), 2nd contribution: Aphis parietariae Theobald (Homoptera Aphididae) indifferent natural host of aphidiids (Hymenoptera Aphidiidae) concerning citrus grove. *Bollettino di Zoologia Agraria e di Bachicoltura* **29**(2): 189-193
- Mizuno, M., Itioka, T. & Tatematsu, Y., 1997. I., Food utilization of aphidophagous hoverfly larvae (Diptera: Syrphidae, Chamaemyiidae) on herbaceous plants in an urban habitat. *Ecological Research* **12**(3): 239-248
- Mullens, B.A., Luhring, K.A. & Breidenbaugh, M.S., 1997. Experimental host range studies with *Heleidomermis magnapapula* (Mermithidae), a parasite of Culicoides variipennis (Ceratopogonidae). Journal of the American Mosquito Control Association 13(4): 398-401
- Mutin, V.A., 1997. Hover-flies (Diptera, Syrphidae) collected in Kuril Islands in 1996. Far Eastern Entomologist 41: 1-4
- Mutin, V.A., 1997. Mate-seeking behaviour of the hover flies males (Diptera, Syrphidae). *Chteniya Pamyati Alekseya Ivanovicha Kurentsova* 7: 117-124
- Mutin, V.A. & Barkalov, A.V., 1997. A review of the hoverflies (Diptera: Syrphidae) of Sakhalin and the Kuril Islands, with descriptions of two new species. *Species Diversity* 2(2): 179-230
- Nash, R., 1997. Species inventory for Northern Ireland: hoverflies (Diptera: Syrphidae). *Environment and Heritage Service Research and Development Series* **97**(8): 1-23
- Ngamo T., L.S. & Hance, Th., 1997. Reduction of predatory efficiency of hoverflies (Diptera, Syrphidae) in cereal fields due to parasitism. *Mededelingen Faculteit andbouwkundige en Toegepaste Biologische Wetenschappen Universiteit Gent* **62**(2b): 469-472
- Nielsen, T.R., 1997. The hoverfly genera *Anasimyia* Schiner, Helophilus Meigen, *Parhelophilus* Girschner and *Sericomyia* Meigen in Norway (Diptera, Syrphidae). *Fauna Norvegica* Series B **44**(2): 107-122
- Ohara, K., 1997. *Spilomyia suzukii* (Diptera Syrphidae), captured by *Vespa analis insularis* (Hymenoptera, Vespidae). *Hana Abu* **4**: 21-23

- Ohara, K., 1997. Two species of the genus *Platycheirus* (Diptera, Syrphidae), newly recorded from Japan. *Hana Abu* 4: 24-26
- Ohara, K., 1997. Record of *Pimocerioides petri*, collected in Machida City, Tokyo. *Hana Abu* 4: 45
- Ohishi, H., 1997. Eupeodes confrater had been collected from Honshu in 1974. Hana Abu 4: 34
- Oishi, H., 1997. An identification guide to the Japanese common hoverflies with colored marking. *Nature & Insects* **32**(8): 41-47
- Palmer, C., 1997. *Parasyrphus nigritarsis* (Diptera, Syrphidae) in Hampshire. *Dipterists Digest* Second Series **4**(2): 60
- Palmer, C., 1997. *Epistrophe melanostoma* (Diptera, Syrphidae) in Hampshire. *Dipterists Digest* Second Series **4**(2): 71
- Paradise, C.J. & Dunson, W.A., 1997. Effects of water cations on treehole insect communities. *Annals of the Entomological Society of America* **90**(6): 798-805
- Parui, P. & Lahiri, A.R., 1997. Diptera. Zoological Survey of India, Director [Ed.]. *Fauna of Delhi*. Zoological Survey of India. Calcutta. 1997: i-vi, 1-903 pages 359-389
- Pennington, M., 1997. Shetland hoverflies. Part 1: introduction. Part 2: Cheilosiini, Sericomyiini, Xylotini. *Shetland Entomological Group Newsletter* **14**: 4-7
- Pennington, M., 1997. Update. Shetland Entomological Group Newsletter 14: 9-12
- Perry, I., 1997. *Callicera aurata* in Suffolk found breeding in birch. *Dipterists Digest* Second Series **3**(2): 53
- Radha Krishnan, B. & Muraleedharan, N., 1997. Records of natural enemies *Toxoptera aurantii* (Boyer de Fonscolombe) (Homoptera: Aphididae) infesting tea plantations in South India. *Journal of Aphidology* 9(1-2): 87-91
- Rama D.K., Subba R.C., Aluri, R.J.S. & Atluri, J.B., 1997. Sexual system and pollination ecology of *Cardiospermum halicacabum* L. (Sapindaceae). *Journal of the Bombay Natural History Society* 94(2): 333-341
- Rasztik, V. & Meszaros, Z., 1997. Faunistical study of hovering flies (Diptera: Syrphidae) of an untreated orchard 1. *Novenyvedelem* **33**(12): 605-611
- Roitman, G.G., Montaldo, N.H. & Medan, D., 1997. Pollination biology of *Myrrhinium atropurpureum* (Myrtaceae): sweet, fleshy petals attract frugivorous birds. *Biotropica* **29**(2): 162-168
- Rojo, S. & Marcos-Garcia, M.A., 1997. Syrphid predators (Dipt.: Syrphidae) of gall forming aphids (Hom.: Aphididae) in Mediterranean areas: implications for biological control of fruit trees pests. *Entomophaga* **42**(1-2): 269-276

- Rotheray, G.E., 1997. Larval stages of the predatory hoverflies *Trichopsomyia flavitarsis* (Meigen), *Platycheirus melanopsis* Loew *and Parasyrphus nigritarsis* (Zetterstedt) (Diptera: Syrphidae). *Entomologist's Gazette* **48**(2): 127-134
- Saribiyik, S. & Hasbenli, A., 1997. New records for fauna of Turkish Syrphidae (Diptera). *Turkiye Entomoloji Dergisi* **21**(3): 225-232
 Sarthou, J-P., 1997. On the use of an aspiration tube in the capture of adult dipteran Syrphids. *Entomologiste* (Paris) **53**(1): 23-27
- Sarthou, J-P. & Speight, M.C.D., 1997. Faunistic inventory of the Diptera Syrphidae and Microdontidae from the south west of France. *Bulletin de la Societe Entomologique de France* 102(5): 457-480
- Smith, K.G.V., 1997. *Didea fasciata* Macq. (Dipt., Syrphidae) in North London (Middlesex). *Entomologist's Monthly Magazine* 133: 204
- Somen Singh, L., Shantibala, K. & Singh, T.K., 1997. Larval voracity and development of three aphidophagous predators of *Tuberculatus nervatus* Chakrabarti and Raychaudhuri (Homoptera: Aphididae) in Manipur. *Journal of Aphidology* 9(1-2): 50-54
- Speight, M.C.D., 1997. Invertebrate species lists as management tools: an example using databased information about Syrphidae (Diptera). *Council of Europe Environmental Encounters* Series **33**: 74-83
- Speight, M.C.D. & Sarthou, J-P., 1997. The European *Temnostoma* species (Dip.: Syrphidae). *Entomologist's Record and Journal of Variation* 109(5-6): 127-132
- Ssymank, A., 1997. Some faunistical and biological notes on syrphid flies (Diptera, Syrphidae) in Perigord (France). *Entomologiste* (Paris) 53(5), octobre 1997: 225-237
- Ssymank, A., 1997. Habitat preferences of flower-visiting insects (Diptera: Syrphidae) in the Drachenfelser Landchen (W-Germany) and approaches for an integrated assessment of landscapes.

 Mitteilungen der Deutschen Gesellschaft fuer Allgemeine und Angewandte Entomologie 11(1-6): 73-78
- Ssymank, A., 1997. Flowering ecology aspects of agricultural wild plants by example of hover flies (Diptera, Syrphidae). *Schriftenreihe Bayerisches Landesamt fuer Umweltschutz* **142**: 73-81
- Standfuss, K., 1997. The hoverfly fauna in a vegetation conservation area in the Westphalian Small German Wildflower Reserve (Diptera, Syrphidae). *Mitteilungen der Arbeitsgemeinschaft Ostwestfaelisch-Lippischer Entomologen* **13**(1): 10-14
- Stollar, S., 1997. The hoverflies (Diptera, Syrphidae) at Mochovce, the construction area of a nuclear power station. Folia Facultatis Scientiarum Naturalium Universitatis Masarykianae Brunensis Biologia 95: 181-184

Stubbs, A.E., 1997. Observations on the ecology and oviposition of *Eumerus sabulonum* (Syrphidae) and *Acrosanthe annulata* (Therevidae) (Diptera). *Dipterists Digest* Second Series **3**(2): 54-55

Stuke, J-H., 1997. Consideration of hoverflies (Diptera, Syrphidae) in nature conservation practise on calcareous grassland in the central Kaiserstuhl. *Studia Dipterologica* 4(2): 371-376

Sutherland, J.P., 1997. The hoverflies (Diptera, Syrphidae) of Rostherne Mere, Cheshire. *Dipterists Digest* Second Series 4(1: 35-40

Sutherland, J.P. & Poppy, G.M., 1997. Spatial and temporal distribution of aphidophagous hoverflies (Diptera: Syrphidae) in sown wild flower patches in a winter barley crop. In Cooper, Alan; Power, James [Eds]. Species dispersal and land use processes: proceedings of the sixth annual conference of IALE UK, the UK region of the International Association for Landscape Ecology, held at the University of Ulster on 9th-11th September 1997. IALE (UK). Aberdeen. 1997: i-xii, 1-344. Chapter pagination: 135-142

Teruo, K., 1997. First record of a hoverfly from Japan (7). *Hana Abu* 3: 1-2 Thompson, F.C., 1997. The genus *Pleskeola* Stackelberg (Diptera: Syrphidae), a junior synonym of Parhelophilus Girschner. *Proceedings of the Entomological Society of Washington* 99(4): 628-640

Thompson, F.C., 1997. Revision of the *Eristalis* flower flies (Diptera: Syrphidae) of the Americas south of the United States. *Proceedings of the Entomological Society of Washington* **99**(2): 209-237

Thompson, F.C., 1997. *Spilomyia* flower flies of the New World (Diptera: Syrphidae). *Memoirs of the Entomological Society of Washington* 18: 261-272

Thompson, F.C., 1997. Linnaean species of *Conops* (Diptera: Conopidae, Muscidae, Sciomyzidae, Syrphidae, & Tachinidae), with designations of lectotypes. *Entomological News* **108**(4): 265-272

Thorpe, E., 1997. Hoverfly report 1993-1996. *Derbyshire Entomological Society Journal* **129**: 2-9

Tokumoto, H. & Ohgushi, R., 1997. Syrphid-flies captured in the site of Kanazawa ancient castle. *Hana Abu* 4,: 27-32

Tominaga, O., 1997. Noises made by a large swarm of *Dasysyrphus bilineatus* Matsumura (Diptera, Syrphidae). *Hana Abu* **3**: 53

Toth, S. & Rezbanyai-Reser, L., 1997. Flies from Ticino based on the collections in the Museo Cantonale di Storia Naturale, Lugano (Diptera: Stratiomyidae, Tabanidae, Bombyliidae, Syrphidae). Bollettino della Societa Ticinese di Scienze Naturali **85**(1-2): 67-70

Toth, S. & Rezbanyai-Reser, L., 1997. Faunistic records of Swiss flies based on the collections in the Natural History Museum Lucerne (Diptera: Stratiomyidae, Tabanidae, Bombyliidae, Syrphidae, Conopidae). *Entomologische Berichte Luzern* 37: 121-148

Truscott, L., 1997. Hoverflies in Cornwall, 1996. *Hoverfly Newsletter* **23**: 5

van Wely, P., 1997. *Volucella zonaria* seasonal movements in the Zoetermeer. *Natura* (Hoogwoud) **94**(2): 43-46

von der Dunk, K., 1997. New records of syrphids in Bavaria (Dipt., Syrphidae). *Galathea* **13**(1): 19-20

Vowinkel, K., 1997. The effects of agricultural intensification and fallowing on the epigeic arthropod fauna in the low mountain range meadows of the Western Harz near St. Andreasberg. *Artenschutzreport* 7: 43-48

Vujic, A., 1997. The genus *Pipizella* (Diptera, Syrphidae) on the Balkan Peninsula and description of *Pipizella zloti* sp, n. *Dipterists Digest* Second Series **4**(2): 51-60

Watt, K.R., 1997. The distribution of *Helophilus trivittatus* in Scotland. *Hoverfly Newsletter* **23**: 2

Whiteley, D., 1997. *Melangyna barbifrons* - a hoverfly new to Derbyshire. *Derbyshire Entomological Society Journal* 129: 10

Whittington, A.E. & Rotheray, G.E., 1997. Afrotropical distribution and larval description of *Ornidia obesa* (Fabricius, 1775) (Diptera; Syrphidae). *Journal of African Zoology* 111(5): 365-372

Wyss, E., 1997. Different strategies to control the rosy apple aphid *Dysaphis plantaginea* in organic apple growing. *Mitteilungen der Deutschen Gesellschaft fuer Allgemeine und Angewandte Entomologie* 11(1-6): 233-236

Yamamoto, H., 1997. A hymenopterous parasite species of *Betasyrphus serarius* (Wiedemann). *Hana Abu*: 51

Yamauchi, S., 1997. Hoverflies collected in the Bonju mountains, Aomori Prefecture, in early autumn. *Hana Abu* **3**: 47-48

Yokohama, M., 1997. First domestic records of some hoverflies (Diptera, Syrphidae) from Hokkaido, Japan (2). *Hana Abu* 3: 5-8

Yokohama, M., 1997. Study notes on hoverflies. (5) A method of pulling out the genitalia of a male hoverfly. *Hana Abu* **3**: 59

Yokohama, M., 1997. Study notes on hoverflies. (6) The nomenclature of the male genitalia of hoverflies. *Hana Abu* **3**: 60-63

Zumbado, M.A. & Thompson, F.C., 1997. New species of *Sterphus* (Diptera: Syrphidae) from Costa Rica with notes on other species present in Costa Rica. *Southwestern Entomologist* **22**(1): 79-90