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Bernard Verdcourt's article on *Baccha* raises an interesting question by highlighting a colour in a hoverfly that appears to be present in live specimens, but fades after death. Hoverfly collectors are more fortunate than collectors of some other insect groups (for example dragonflies) because for the most part the colouration of living specimens is retained after death. This is not always the case, and I believe that instances of this sort may often not have been reflected in published keys and species descriptions.

Writers of keys to the Odonata, well-aware that dragonflies' colours fade after death, no doubt take account of the colours observed in live specimens when describing the colouration. Since colour fading after death is much less of a problem in hoverflies, I suspect that instances where it does happen may fail to be noticed, since, for obvious reasons, the authors of detailed descriptions and keys are often working from long-dead specimens. Nowhere in the British literature can I find, for example, any textual reference to the fact that the colour of the comma-like abdominal markings on *Scaeva pyrastri* and *Scaeva selenitica* are different, being white in the former and yellow in the latter, a much more obvious field distinction than the shape and orientation of the markings. Forum members who have kept an eye on successive reprints of **British Hoverflies** may have noticed that Steve Falk has now changed the colour of these markings in the illustration of *S. selenitica* in the colour plates to yellow. The reason this difference has not been observed elsewhere in the literature is no doubt because in both species the markings tend to become a murky cream colour in dead specimens. Other examples where colours of living specimens are usually not mentioned in hoverfly identification books include some of the Chrysogastrini: the thorax and abdomen of British species of *Chrysogaster* are usually described as "black"; this is true of *C. hirtella* but in life *C. solstitialis* is distinctly blue (about the colour of blue-black ink) and also has striking brick-red eyes (chocolate brown in *C. hirtella*). The eyes of least some *Orthonevra* species are ochre yellow in life; I have never seen this stated in the literature. The oriental species *Dideopsis aegrotus* has very strong wing clouds; these are brown in dead specimens (and are so described in all written descriptions I have seen of the species); in life these wing clouds are a spectacular deep blue. Comments welcome!

My thanks to all contributors who have helped to make this newsletter a very full one. Copy for **Newsletter No. 26** should be sent to me: **David Iliff, Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 4HN**, to reach me by 21 June 1998.

CONTENTS

UNUSUAL BEHAVIOUR BY *CRIORHINA BERBERINA*

Joan Morgan
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On a warm sunny day (9 July 1997) I was examining a raised flower bed in my garden near Bangor when I became aware of a loud buzzing moving around amongst the flowers. At first I thought it was a bluebottle, of which there was a number on the wing, but I soon spotted a fairly large Syrphid. It flew very fast, only a few inches above the soil, in alternate directions over a bed (about 3 X 20 feet).

Intrigued by this behaviour I watched for about ten minutes during which time it began to pursue a small Muscid. The latter eventually went off at a tangent pursued by the Syrphid several feet above the ground. Three or four minutes later the Syrphid returned alone and resumed its rapid buzzing flight close to the soil. I finally managed to net it and found it to be a male *Criorhina berberina*.

This local species has a number of scattered records in North Wales: J Hobart took it in the Bangor area on 30 April 1944, 7 May 1944, 9 May 1944, 23 August 1945 and 5

June 1960. P N Crow recorded it in Merioneth from 1969 to 1977, while more recently J B Formstone has taken it in Denbighshire. I have recorded the species in my garden on only one previous occasion, 18 June 1968.

The only explanation that occurs to me is that the hoverfly I watched was indulging in some kind of territorial behaviour. It certainly pursued the much smaller fly quite deliberately until the latter flew off. The hoverfly then returned and resumed what appeared to be a close inspection of the soil of the flower bed before it was caught. I wonder if anyone else has noticed this sort of behaviour in *C. berberina* or other Syrphids?

MERODON EQUESTRIS IN OCTOBER ON THE SCILLY ISLES: CONFIRMED

Leon Truscott
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On 10 October 1997 Rod Belringer and I noted adult *Merodon equestris* at three different locations on St. Mary's, Isles of Scilly. This follows our previous October records from Scilly in 1994 and 1996 (**Hoverfly Newsletters Nos 21 and 23**). One of the 1997 specimens was retained, and Colin Plant kindly confirmed the species as *M. equestris*. This appears to eliminate the possibility of another *Merodon* species being involved.

This brings the number of individuals we have recorded in October on Scilly to 9:

9 October 1994:	4 on St. Martin's
14 October 1994:	1 on St. Mary's
12 October 1996:	1 on St. Mary's
10 October 1997:	3 on St. Mary's

We coincidentally met Martin Goodey of the Trenoweth Research and Development Station on St. Mary's on 10 October 1997. Part of his job is research into the control of *Merodon*, daffodil growing being a major industry on the Isles of Scilly. He had never seen *Merodon* flying "out of season", but had heard occasional reports from workers in the fields of having seen "fly" very late in the year.

It is still not clear whether *M. equestris* is continuously brooded throughout the summer or whether a second brood is involved. It will take a long holiday there to find out! Either way, the long bulb-growing season on Scilly is undoubtedly a major factor.

THE 1997 SCILLY SEASON

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The Isles of Scilly are renowned for the numbers of migrant birds found there during the autumn, especially in October. To a lesser extent this also applies to migrant (or itinerant - see Tony Parsons' article in **Hoverfly Newsletter No. 22**) insects, notably Lepidoptera, but also hoverflies.

Rod Belringer and I spend a couple of weeks on the Scillies every October. Hoverflies are always noticeably more numerous (in both species and individuals) than in our normal recording area of East Cornwall and, I suspect, elsewhere on the mainland at this time of year. Good patches of ivy (*Hedera*) in sheltered spots can be quite busy if the weather is fine.

In 1997 we recorded 30 species between 4 and 18 October. These included four species new to our Scilly list, *Platycheirus clypeatus*, *Cheilosia vernalis*, *Eristalinus sepulchralis*, and *Helophilus trivittatus*. **Hoverfly Newsletter No. 21** contained our list of 35 species (to 1995). *Platycheirus immarginatus*, *Eristalis nemorum* and *Eumerus tuberculatus* have been added to that list, and the four 1997 new species bring the total of species found between 4 and 20 October in the last five years to 42. Also found in 1997 were *Merodon equestris* (see separate article) and *Xanthandrus comtus*.

X. comtus has been recorded annually from 1992 to 1997 with the exception of 1994. The most productive year was 1992 when 4 individuals were found. A single *X. comtus* was found on St. Mary's on 10 October 1997.

CHURCHYARD RECORDING

Ted and Dave Levy
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County hoverfly recording, when an assessment of a species and full data about it are required, includes the extremes of its flight period. In spring it is well known that sallow, hazel, laurel and lesser celandine are the favoured blossoms to watch to record the earliest dates. As far as the late flight dates are concerned, some of the best places to search are the local churchyards.

In late autumn or early winter the great attraction to nectar-seeking insects is ivy blossom, and wherever you find old walls that are not cleared regularly you will find a mass of it. Old walls around country estates are often very good but the walls around churchyards are better on two counts. First they are usually quiet and undisturbed, and secondly they are easy to match to a grid reference. In late September or October a

sun-warmed wall covered with ivy blossom will be seen to be really buzzing with insects of many kinds; often a lot of wasps are present, also late butterflies, but with patience a number of Diptera will be seen, the weaker ones such as *Melanostoma* lower down out of the traffic, but others like *Eristalis* buzzing around in full competition. During recording trips throughout the year it is worth noting and jotting down any good ivy clumps with berries with a view to visiting them in the autumn.

We have records of 37 hoverfly species that visit ivy blossom, as follows:

Melanostoma scalare
Platycheirus albimanus
Platycheirus scutatus
Platycheirus clypeatus
Dasysyrphus albostriatus
Epistrophe grossulariae
Episyrphus balteatus
Meliscaeva auricollis
Eupeodes corollae
Eupeodes latifasciatus
Eupeodes luniger
Scaeva pyrastri
Scaeva selenitica
Sphaerophoria scripta
Syrphus ribesii
Syrphus vitripennis
Sericomyia silentis
Volucella pellucens
Volucella zonaria
Cheilosia pagana
Cheilosia proxima
Rhingia campestris
Orthonevra splendens
Eristalis arbustorum
Eristalis horticola
Eristalis nemorum
Eristalis intricarius
Eristalis pertinax
Eristalis tenax
Helophilus pendulus
Helophilus trivittatus
Myathropa florea
Arctophila superabiens
Syritta pipiens
Xylota segnis
Xylota sylvarum
Neoascia podagrica

Ivy blossom in pagan times was thought to have magical powers to ward off evil forces and was hung on doors and over fireplaces to protect the household. It still has a bit of magic for hoverfly recorders!

COLOURATION IN *BACCHA*

Bernard Verdcourt
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I picked up a freshly dead specimen of *Baccha* from the floor of my sunroom at Kimbers, Maidenhead, Berks, on 14 July 1997. Since it was a female I knew that it would be impossible to name, but I was surprised to find that the ventral side of the swollen distal part of the abdomen was bright red. The specimen has since lost all trace of this but it occurred to me that the detailed colour notes on living specimens of the genus might yield diagnostic characters. I could find no reference to this colouration in

any literature available to me; in fact the variation in the banding on the dorsal side is scarcely mentioned, even by Verrall. I have never seen this genus in the garden before.

I contacted Ken Smith, who told me that he thought he had noticed the reddish colour in living *Baccha* in his own garden, but considered that it might be transient, due to gut contents. I would be most interested to hear the views of readers on this observation, and whether the red colour is merely gut contents or an evanescent colour.

(Editor's comment: on receipt of Bernard's article I examined my photographs of *Baccha*. Among these were examples of three different specimens (all female) in which the underside of the abdomen was visible. In all three cases the sternites were bright coral red. I shall make a point of examining the underside of any *Baccha* that I see in the future).

THE SEPARATION OF *PIPIZELLA MACULIPENNIS* AND *PIPIZELLA VIRENS*

Alan Stubbs
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John Dobson referred to me some *Pipizella* that he had obtained at the Brent Reservoir, Middlesex. Among them were specimens that he keyed out in **British Hoverflies** as "*P. maculipennis*?". In my opinion a female is *maculipennis* but most of the males were a variant of *P. virens* that I had not seen before.

In couplet 2, males with tergite 4 entirely covered with black hairs on the axis key to *maculipennis*. However it is now clear that male *virens* can have black hairs in this position; indeed such hairs can be much more widespread.

In couplet 3, the third antennal segment and ventral view of the male genitalia of *varipes* and *virens* are illustrated. *P. maculipennis* is very similar to *virens*. However the surstylus (the apical outer process on each side of the genitalia) of *virens* is highly distinctive in lateral view, being swollen at the base and with a slender apical beak.

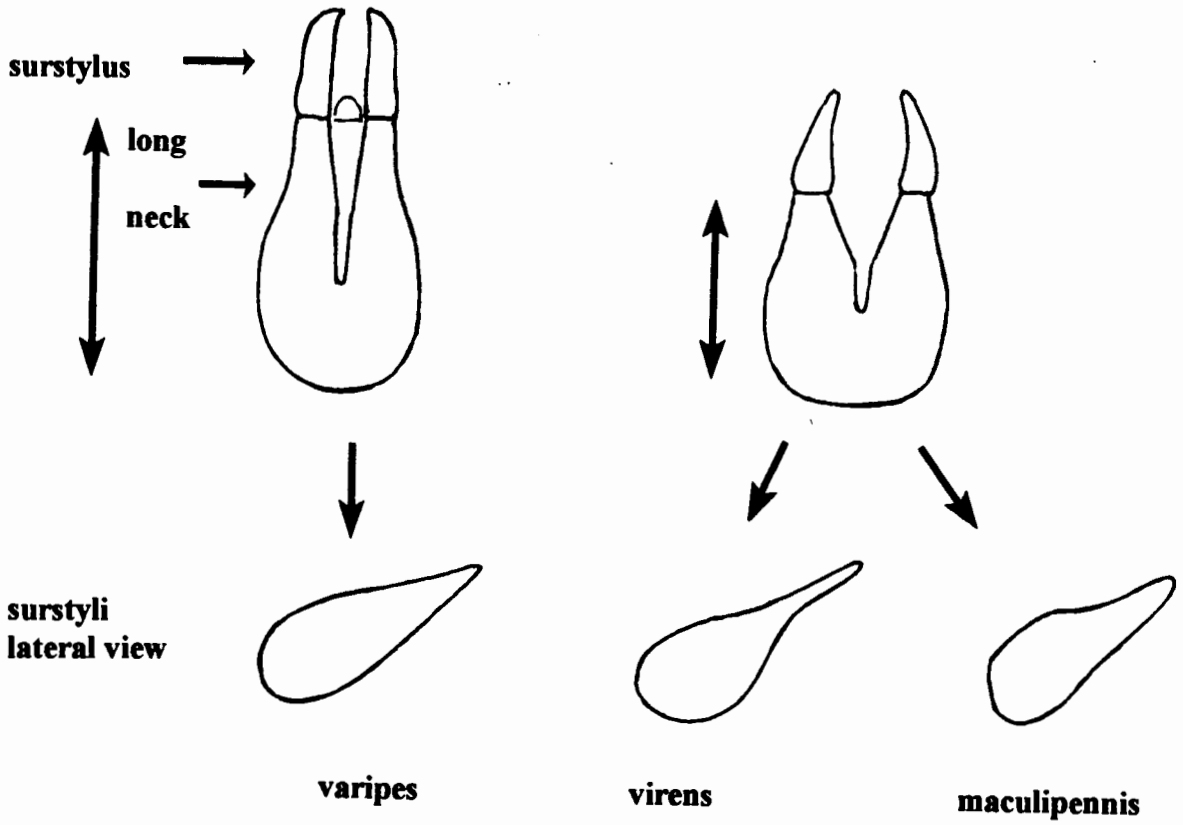
In couplet 5 the females of *maculipennis* and *virens* are separated by the relative length of the third antennal segment and the presence of black hairs on the axis of tergite 3 in *maculipennis*. If male *virens* can have black hairs where pale ones were expected, it must be assumed that females can as well. Thus the relative length of the third antennal segment is left as the only reliable character in couplet 5. There are very few specimens of female *maculipennis* but the hairs on the abdomen appear to be shorter in the few tatty specimens available than the hairs on *virens*.

P. maculipennis remains a poorly known species with fairly widespread records that lack ecological consistency. Though it has been found in the open, my feeling is that there is an association with woodland edge, but this is guessing,

P. virens is proving much more frequent, though its ecological needs have been open to various interpretations. One spring it appeared in good numbers in my garden, confined to an area of cow parsley (*Anthriscus silvestris*) under an apple tree; subsequently a few have been seen in some years. It is presumably dependent on root aphids (as *P. varipes*, which is recorded on wild parsnip (*Pastinica sativa*)).From limited wider experience I feel this may be a wood edge species.

P. varipes is by far the commonest species. It is confined to open habitats.

Please check all specimens of *P. maculipennis*.



Male *Pipizella*

CHEILOSIA PSILOPHTHALMA ADDED TO IRISH LIST. COULD IT OCCUR IN BRITAIN?

Alan Stubbs
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Martin Speight has done it again - found a species of hoverfly in Ireland before anyone has found it in Britain (as was the case with *Cheilosia laskei* (= *ahenea* (von Rosser, 1840)) and *Paragus constrictus* which are still only known from Ireland). Thus **British Hoverflies: Second Supplement** is out of date already.

The discovery of *Cheilosia psilophthalma* follows a paper by Claussen and Kassebeer (1993) which focuses on a species group containing *C. praecox, C. mutabilis*, redescribed *C. psilophthalma* and a species new to science, *C. latagenis*. The latter was from the Pyrenees and is assumed to be unlikely to occur in Britain.

Speight's key, based largely on Claussen and Kassebeer, separates the species as follows (not quite verbatim):

1. Arista pubescent. Hind tarsi entirely dark. Tergites 2-4 with median black hairs (very short in female). Male frons thickly grey dusted. Female eye hairs very short or absent. [claws bicoloured, basal half brownish yellow but apical half black] *mutabilis*

   Arista bare, Hind tarsi partly yellow. Tergites 2-4 with entirely greyish-white hairs. Male frons varies from dust along eye margin to entirely dusted. Female eye hairs long and distinct. 2

2. Claws bicoloured. Male frons not swollen. Female third antennal segment one and a half times as long as deep. *praecox*

   Claws dark or vaguely bicoloured. Male frons somewhat swollen. Female third antennal segment hardly longer than deep. *psilophthalma*

Martin has Irish records for *psilophthalma* Becker, 1894 from counties Clare, Laois, Wexford and Wicklow. Dates run from 21 April to 24 May. Scrub woodland seems to be the main habitat and flower visits include *Salix repens* (dwarf willow) and *Prunus spinosus* (blackthorn). He has re-examined various British material of our long-standing species but has not located any specimens of *psilophthalma*. He anticipates that such an early spring species could have easily been overlooked in Great Britain.

Clearly we should be re-examining British material, of *praecox* in particular. I have checked my own collection of *praecox* and confirm the following localities: Chobham, Surrey, 30 April 1966 (North end, heath bordering small valley bog but complex habitat mosaic close by); Windsor Forest, Berks, 29 April 1974; Cavenham Heath, Suffolk, 23 April 1977; and Fineshades, Northamptonshire, 23 April 1987 (males hovering by blackthorn at wood edge, but may be breeding in adjacent disused railway line). The

Recording Scheme will likewise appreciate confirmation of previously submitted records.

References:

Claussen, C & Kassebeer, C.K, 1993. Eine neue Art der Gattung *Cheilosia* Meigen, 1822 aus den Pyrenaen (Diptera: Syrphidae). *Ent. Z., Frankf. a M.* **103**: 420-427.

Speight, M.C.D., 1996. *Cheilosia psilophthalma* and *Odinia boletina*: insects new to Ireland and *Sapromyza sexpunctata* confirmed as an Irish species (Diptera: Syrphidae, Odiniidae & Lauxaniidae). *Ir. Nat. J.* **25**: 178-182.

IDENTIFICATION OF FEMALE *NEOCNEMODON LATITARSIS*

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In **British Hoverflies; Second Supplement** a key is given to female *Neocnomodon.* Recognition of female *N. latitarsis* is over-dependent on interpretation of the width of the occiput (the area behind the eyes). This is causing some people problems. As an extra character, it would seem that the colour of the hairs on the frons may be reliable and thus provide another feature for comparison of the last three species in the key.

latitarsis	Frons with nearly all hairs pale, a few confined to the front and hind margins.
brevidens	Frons narrow, but distinct zones of black hairs on the front and hind margins.
vitripennis	Frons with most hairs dark; just a narrow median zone of pale hairs.

As yet it may be premature to say whether the distinction from *brevidens* is fully reliable since there is so little material.

This is perhaps a useful place to note that both sexes of *latitarsis* were swept in moderate numbers from crosswort (*Cruciata laevipes*) flowers in mid-June in the Black Mountains during the Abergavenny field meeting in 1997. I think it was Roger Morris who first drew my attention to this occurrence. Since there were both deciduous trees and varied conifer plantations in close proximity, the broader ecological requirements of this species is still unclear. There were few if any specimens to be obtained by sweeping pignut (*Conopodium majus*).

TERRITORIAL HOVERING BY *PLATYCHEIRUS SCUTATUS*

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Platycheirus scutatus is a common species so perhaps one tends to dismiss the need to record its behaviour. During my garden monitoring, this species is one of the regulars but rarely exceeds a count of more than one or two (maximum seen during a lap of my garden). It is multi-brooded so tends to appear for a few weeks and then there is a gap before the next generation. In some years it is hardly seen at all.

Thus I was surprised to find 4 males hovering in territorial mode. They were about 0.75 metres above rough herbaceous grassland (part of my wilderness area) situated beneath the most heavily shaded area where two apple trees have a merging canopy at 2 metres. Three of the males had territories within 0.5 metres of one another, resulting in frequent dog fights. The other one was more isolated. I could find no other such males where trees provide canopy edge shade or under trees with higher canopy/little ground flora.

These initial observations were made on 25 September 1997 at 11.50 am BST. The weather had been dull all day, with a gentle east wind under anticyclone conditions. The temperature was 17°C though it felt pretty cool and few other insects were active.

On subsequent days *P. scutatus* males were seen hovering in the same location, indeed at least one male was seen here for another two weeks. Usually the flies vanished when the sun was obscured by cloud, but overall the behaviour was seen through much of the day, though not necessarily on the same hours each day, and not in very hot conditions. On some days there were males of *Melanostoma mellinum* also hovering, but these were confined to the sunny edge of the canopy (in effect a small glade hemmed in by fences and bushes).

SUMMER MIGRATION PEAK OF HOVERFLIES AT PETERBOROUGH IN 1997

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My garden monitoring now has a run of data as from 1990. 1997 was by far the best year for number of species and number of individuals, making up for abysmal results for 1995 and 1996. However, though many interesting points emerge, at present I shall briefly comment on the 1997 summer peak.

Normally somewhere between mid July and mid August there is a major peak in *Episyrphus balteatus*. Depending on the year, the increase may be gradual, stepped or suddenly massive. The dilemma is whether there is a movement off agricultural areas as harvest progresses or whether there is migration from Europe to boost the meagre numbers that are semi-resident in my suburban area. This year was a mild affair, a peak of only 203 (though I received a report of massive numbers on the Norfolk coast) which sets the scene for what happened to other species.

There was an extraordinary explosion in the number of Eristalines, up to 110 in my garden at once and involving 9 species (*Eristalis*, *Eristalinus* and *Helophilus*). *Helophilus hybridus* reached a peak of 13 (present for 6 weeks), a species new to the garden. *Metasyrphus corollae* was unusually plentiful at a peak of 15 (normally only 1 or at most 3, or absent, yet when I lived in London, near Harrow, it always appeared in my garden in good numbers about 3 August). That is a well known migrant, as is *Scaeva pyrastri*, which peaked at 7, which is far more than in previous years. *Sphaerophoria scripta* was in high numbers with a peak of 37. One might have expected *Syritta pipiens* to be involved in mass movement, yet its peak was only 6 (1996 was the spectacular *S. pipiens* year, with a peak of 238) and *Syrphus* had a very poor showing. The real oddball was *Platycheirus albimanus* which peaked at 14; not a normal mass movement species, but it seemed to be part of that package.

So the usual dilemma - is local or long distance movement at play? One could argue that a wet June suited Eristalines so local breeding success could provide an explanation. Yet migrants such as *Scaeva pyrastri* show a coincident pattern. Studies of mass movement of hoverflies through alpine passes show that a surprising mix of species can be involved, but the Fens/East Midlands are rather short of alpine passes as a means of monitoring movement!

The period involved was not an exceptional one for migrant moths. However there was a moderate immigration of Large White butterflies and a huge one of Small Tortoiseshell. One of the most notable features of my garden was the influx of remarkable numbers of the latter butterfly, with a peak of 50. It was also a year when migrant dragonflies were widely reported in Britain.

I feel that my hoverfly monitoring results suggest some large scale movements, probably more than one movement, the species involved reflecting the direction of source for one or more influxes.

ERISTALIS PRATORUM (MEIGEN. 1822): A NEW DERBYSHIRE HOVERFLY RECORD

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The Sorby Natural History Society (Sheffield) arranged a field meeting on 5 July 1997 to Linacre Reservoirs, near Chesterfield, Derbyshire (SK 3272 and SK 3372), an area unvisited by Sorby invertebrate recorders until 1997. The intention of the meeting was to record and introduce insects, especially the hoverflies, to novice entomological members of the Society, and to this end many more species and specimens of hoverflies were netted, demonstrated to initiates and released, than would have been normal on a recording meeting.

It was about 11 am in sunny conditions when yet another *Eristalis* species, hovering at 2 metres, was netted. Confident that it would be a male *E. tenax* or *E. pertinax*, a cursory examination was given before it was passed round the party, at which point it was realised that none of the familiar diagnostic features coupled up to produce a known name. An appeal for help to my colleague Derek Whiteley produced the advice to retain the specimen for further examination and the possibility of it being *Eristalis pratorum* (Meigen. 1822).

Subsequent examination by myself and Derek Whiteley, using the comments by Alan Stubbs (**British Hoverflies: Second Supplement , 1996**), Steven Falk's paper (**Br. J. Ent. Nat. Hist. 3, 1990**) and Martin C D Speight's paper (**Dipterists Digest No. 1, 1988**) indicated that indeed we had a male specimen of *Eristalis pratorum*.

The specimen has been compared by Steven Falk (Ecology Officer, Herbert Art Gallery and Museum, Coventry) with his female specimen of *E. pratorum* taken on 27 March 1990 at Ryton Wood, Warwickshire, and confirmed as a correct identification. It has also been examined by Nigel Wyatt (Department of Entomology, Natural History Museum, London) to eliminate the possibility of other European species being involved. It was confirmed as *Eristalis pratorum* and stands as a new Derbyshire record and possibly the second British sighting of this species.

Once seen it is quite distinctive in the hand and immediately obvious, but it would necessitate much more extensive "trawling" of similar *Eristalis* species than I have done over the last 24 years to find one! The site at grid reference SK 330722 was visited again on 14 July 1997 in good morning conditions and two hours were spent netting for examination every *Eristalis* specimen present, but all were common species. Previously the site had been visited on four occasions, 15 April 1997, 29 April 1997, 14 May 1997 and 1 July 1997, and it was visited again on 6 September 1997, but no other *E. pratorum* was found.

The three Linacre reservoirs are stepped, from 140m to 180m, up the Birley Brook valley and their construction dates from between 1854 and 1911. They are no longer used as a drinking water supply and the surrounding woodlands are given over to

recreational access, forestry and conservation. There are blocks of monoculture beech and conifers and other tree species but the higher parts of the valley retain the typical oak/birch/alder woodland of the area with excellent ground cover and extensive seepages on the valley sides. The deep and nutrient-poor water of the reservoirs supports little aquatic life but at the head of the top reservoir, where the Birley Brook feeds in the collected water from the gritstone moorlands above and to the west of Chesterfield, silting is providing a willow marsh with associated vegetation.

The *E. pratorum* site is at about 160m and some 100m in from the southern margin of the middle reservoir amid conifers planted in the 1930s and thinned in 1994, producing open woodland with dense ground cover of bracken, blackberry and other plant species. The site is a shallow hollow formed by a stony access path placed across a small stream in 1993 and contains a group of rotting tree trunks shrouded in vegetation and stands of hogweed, angelica and common ragwort, This type of habitat is quite unremarkable for the area.

Other species of hoverfly recorded at Linacre during 1997 include *Criorhina ranunculi*. *Xylota coeruleiventris*, *Chalcosyrphus nemorum* and *Portevinia maculata*. The specimen of *E. pratorum*, captured as a result of sheer chance, will be added to the invertebrate study collections at the Sheffield City Museum, Weston Park, Sheffield, S10 2TP.

May I acknowledge the invaluable help received from Derek Whiteley, Steven Falk, Nigel Wyatt and Severn Trent Water, enabling me to prepare this paper.

UPDATE ON FEMALE *CHALCOSYRPHUS EUNOTUS*

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In **Hoverfly Newsletter No. 21** I reported the discovery on 14 May 1995 of a female *Chalcosyrphus eunotus* in Gloucestershire, the first British record of a female that was known to me. In **Hoverfly Newsletter No. 23**, Ted and Dave Levy reported an earlier British record, of a female, from Bill Dean in Dorset on 8 May 1987. The Autumn 1997 bulletin contained a report on the Abergavenny field meeting in June, in which reference was made to a record of *C. eunotus* beside the River Monnow . Jon Cole showed this specimen in his (prizewinning) exhibit on Dipterists Day in November, where I was able to observe that this also was a female.

My two photographs of the Gloucestershire specimen (which was not caught) show that the faint abdominal spots are not confined to tergite 2. I noted that the same is true of Jon Cole's specimen.

PYROPHAENA: THE HOVERFLY PHOTOGRAPHER'S MOST IRKSOME GENUS?

David Iliff
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Being attractive-looking insects, most hoverflies make excellent subjects for the wildlife photographer. I have been photographing hoverflies for about fifteen years, but during this time I have found that one genus, *Pyrophaena*, presents especial difficulties when it comes to obtaining a good quality picture. Of the two British species, *P. granditarsa* is a strikingly colourful insect, with much of the abdomen being flame-orange, which contrasts beautifully with its other main colour, bluish-black; its exotic looks are further heightened by its darkened wings. *P. rosarum* is less flamboyant, but is nonetheless a neat and elegant hoverfly, mainly black but with its two white (or almost blush-pink) spots on the abdomen. Like *P. granditarsa*, *P. rosarum* darkened wings.

Many hoverflies rest with their wings extended sideways or partially swept, but some genera more usually rest with their wings covering the abdomen. In most cases this does not present a serious problem for the photographer; provided one gets the angle right with respect to the light source, it is relatively easy to produce photographs of, for example, *Platycheirus*, where the abdominal markings are visible in spite of being covered by the wings, because the wings are clear or nearly so. *P. granditarsa* rests with its wings covering its abdomen, and since the wings are dark, photographs of the fly will display neither the body colour nor the wing colour satisfactorily, since the one is eclipsed by the other. The only situations in which I have been able to obtain a shot of this species that displays the abdomen in its true colours is when it is hovering. Of course taking pictures of hoverflies in flight is much more difficult than when they are at rest, and, although such photographs are very satisfying if they are sharp, they do not show the wing detail.

My experience with *P. rosarum* has been similar, as in recent years when I have seen the species at rest, the wings have likewise always been folded over the abdomen, with the result that the abdominal spots are obscured by the dark wings, giving the impression of a totally black fly. These recent encounters with the species have nearly all been in Gloucestershire and Gwent. However during the 1980s I saw *P. rosarum* on a number of occasions in the New Forest and surrounding districts, and my memories of it then are that it often perched with wings extended; indeed I have photographs from that period of the species in that attitude, with the abdominal spots consequently clearly visible. Unfortunately, as I had inferior equipment and limited experience in those days, the photographs are not of the technical quality that I would have wished for.

In addition to the frustration caused, this phenomenon seems to suggest at least two other questions. One assumes that the orange colouring in *P. granditarsa* and the abdominal spots of *P. rosarum* are, as with other brightly marked hoverflies, warning

colours and that the darkened wings may also have some similar role. But, if so, how can they function efficiently as such when they do not show up when the fly is at rest, and presumably especially vulnerable to predators? I am also intrigued by the apparent difference in normal at-rest wing position between specimens of *P. rosarum* observed in the south and in my local area. Is there such a thing as regional variation in behaviour?

INTERESTING RECENT RECORDS

From Simon Colenutt

Isle of Wight

Platycheirus fulviventris	Alverstone (SZ 57 85); 13 July 1997 (1 male)
Xanthandrus comtus	Walters Copse (SZ 43 90); 6 July 1997
Epistrophe diaphana	Tolt Down (SZ 48 84): 20 June 1995 (up to 5) Alverstone; 16 July 1995 (3); 20 June 1997
Epistrophe nitidicollis	Borthwood Copse (SZ 56 84); 20 May 1997, 1 June 1997
Eupeodes nitens	Parkhurst Forest (SZ 46 91); 27 August 1996
Callicera aenea	Tolt Down; 20 July 1996 (one at blossom of *Rubus fructicosus* agg.)
Portevinia maculata	Tolt Copse; 17 May 1997 (4)
Helophilus trivittatus	Hampstead Spit (SZ 41 91); 20 July 1995 (4) Blackgang (SZ 49 76); 21 July 1995 (1 in mercury vapour moth trap) Shorwell (SZ 47 81); 8 September 1995 Mill Copse (SZ 35 89); 9 September 1995 (7)
Parhelophilus frutetorum	Alverstone; singles regularly in May 1997, June 1997; 1 June 1997 (up to 4)
Parhelophilus versicolor	Alverstone; 7 July 1996, 20 July 1996 Borthwood Copse; 26 May 1997 (10-15), 1 June 1997 (up to 30); adults feeding on *Euphorbia amygdaloides* blossom in a coppice clearing. Nearest *Typha* about one kilometre away

Pelecocera tricincta	Parkhurst Forest; August 1995 (up to 3 seen in northern part of forest, but none seen subsequently despite extensive searching)
Pipiza luteitarsis	Tolt Copse; 12 April 1997
Pipizella virens	Tolt Down; 2 July 1997 (2)
Volucella inanis	St. Catherines Point (SZ 49 75); 25 August 1996 (2) Tolt Down; 31 August 1996
Volucella inflata	Tolt Down; 14 July 1996 (5) Shalcombe Down (SZ 38 85); 21 July 1996 (3) Tolt Down; 2 July 1997 (10)
Brachypalpoides lenta	Tolt Down; 2 July 1997
Chalcosyrphus nemorum	Alverstone; 17 August 1996 and 30 July 1997 Borthwood Copse; 1 June 1997
Criorhina berberina	Borthwood Copse; 1 June 1997
Criorhina floccosa	Borthwood Copse; 26 May 1997
Criorhina ranunculi	Alverstone; 31 March 1997 Tolt Down; 14 July 1997

ANNOUNCEMENT

Callicera spinolae: interim reports from a species recovery survey of this RDB1 hoverfly (which is on the Biodiversity Action Plan short list) have been published. The 1997 surveys for larvae (by Graham Rotheray) and adults (by Ivan Perry) are bound together and can be obtained from Martin Drake, English Nature, Northminster House, Peterborough, PE1 1UA.

RECENT LITERATURE

Aguilera, A.P. & Pacheco, C.V. 1995 [Determination of predators of the hazelnut aphid, *Myzocallis coryli* (Goeze) (Homoptera: Aphididae) in the IX region of Chile.] *Rev. Chil. Entomol.* **22**: 17-19
Spanish (English sumary)
predators; *Myzocallis coryli*; Chile; Homoptera; Aphididae; Coleoptera; ***Allograpta pulchra*** (Diptera: Syrphidae); ; Neuroptera

Baenziger, H. 1996 The mesmerizing wart: The pollination strategy of epiphytic lady slipper orchid *Paphiopedilum villosum* (Lindl.) Stein (Orchidaceae) *Bot. J. Linn. Soc.* **121**(1): 59-90
English
15 cases of pollen acquisition were mainly by female ***Episyrphus alternans, Syrphus fulvifacies, Betasyrphus serarius*** among 6 spp. of pollinators.

Burgio, G. & Maini, S. 1995 Phenylacetaldehyde trapping of *Ostrinia nubilalis* (Hb.), *Autographa gamma* (L.) and hoverflies: Trap design efficacy *Boll. Ist. Entomol. "Guido Grandi" Univ. Stud. Bologna* **49**, pp. 1-14
English
Ostrinia nubilalis; ***Autographa gamma***; Syrphidae; Diptera; Lepidoptera; Pyralidae; trapping; pheromone traps; pest control

Carpaneto, G.M. & Taglianti, A.V. 1994 A case of intestinal myiasis due to *Eristalinus taeniops* in Italy (Diptera, Syrphidae). *Boll. Assoc. Rom. Entomol.* 49(3-4): 119-126
Italian
myiasis; ***Eristalinus taeniops***; Italy; Diptera; Syrphidae

Castella, E. & Speight, M.C.D. 1996 Knowledge representation using fuzzy coded variables: An example based on the use of Syrphidae (Insecta, Diptera) in the assessment of riverine wetlands *Ecol. Model.* 85(1): 13 25
English
Syrphidae; Diptera; rivers; ecosystem analysis; France; fuzzy loci; environmental monitoring; aquatic insects; wetlands; France, Loire R.; France, Allier R.; ecosystem management; ecosystems

Claussen, C. 1995 [On the systematic placement of *Cheilosia longicornis* Michl 1911 and *Cheilosia strandi* Duda 1940 (Diptera: Syrphidae).] *Entomol. Z.* **105**(9): 175-177
German (English sumary)
The proper placement of two "Palaearctic" syrphid species, hitherto incorrectly placed in the genus ***Cheilosia*** Meigen, is discussed. ***Cheilosia longicornis*** Michl 1911 is recognised to be a species of the Nearctic genus *Hiatomyia* Shannon; n. comb. ***Cheilosia strandi*** Duda 1940 is a junior synonym of ***Lejota ruficornis*** (Zetterstedt 1843); n. syn.
new combinations; synonymy; ***Cheilosia***; Palearctic Region; Diptera; Syrphidae

Claussen, C. & Vujic, A. 1995 [A new species of the genus *Cheilosia* Meigen from central Europe (Diptera: Syrphidae).] *Entomol. Z.* **105**(5): 77-85
German (English sumary)
Cheilosia clama n. sp. is described and figured, based on material from Central European mountains. The new species is closely related to ***Cheilosia pini*** Becker 1894. Keys to separate *C.* ***clama*** n. sp. from similar European species are given. Records of *C.* ***clama*** n. sp. are presented for the former Yugoslavia, Germany and France.
new species; ***Cheilosia***; Europe; Diptera; Syrphidae

Dobson, J. 1997 Oviposition in *Epistrophe diaphana* (Syrphidae). *Dipterist Digest* 4(1): 47

Dobson, J.R. 1997 An early record of *Scaeva selenitica* (Meigen)(Syrphidae) from the Brent Reservoir, Middlesex *Dipterists Digest* 4(2): 64

Dussaix, C. 1997 *Myolepta vara* (Diptera, Syrphidae) reared in France (Dép. Sarthe). *Dipterist Digest* 4(1): 18-19

Falck, M. 1996 *Mallota megilliformis* (Fallen, 1817) and *Chrysotoxum cautum* (Harris, 1776) (Diptera: Syrphidae) new to Norway *Fauna Norv., Ser. B* **43**(1): 58-60
English (Norwegian sum.)
The hoverflies ***Mallota megilliformis*** (Fallen, 1817) and ***Chrysotoxum cautum*** (Harris, 1776) are reported new to Norway. The specimens were captured at S. Bjønes, Fetsund in Fet in Akershus, and Aasebu friområde, Asmaloy, Hvaler in Ostfold, south-eastern Norway, on 25. May 1990 and 9. and 17. Jun. 1994.
geographical distribution; Norway; Diptera; Syrphidae

Gorman, L. 1996 Some field observations on three uncommon hoverflies: *Doros profuges* (Harris), *Microdon mutabilis* (L.) and *Cheilosia chrysocoma* (Mg.)(Diptera: Syrphidae) in Lancashire, 1991-1996. *Entomologists Record & Journal of Variation* **108**: 311-312

Greco, C.F. 1995 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
Spanish (Eng. & French sum.)
phenology; habitat selection; Syrphidae; Diptera; Argentina; pasture

Hart, A.J. & Bale, J.S. 1997 A method of mass-rearing the hoverfly *Episyrphus balteatus* (Diptera, Syrphidae). *Dipterist Digest* **4**(1): 1-3

Hickman, J.M., Loevei, G.L. & Wratten, S.D. 1995 Pollen feeding by adults of the hoverfly *Melanostoma fasciatum* (Diptera: Syrphidae) *N.Z. J. Zool.* **22**(4): 387-392
English
feeding behavior; pollen; ***Melanostoma fasciatum***; New Zealand; Diptera; Syrphidae

Hickman, J.M. & Wratten, S.D. 196 Use of *Phacelia tanacetifolia* strips to enhance biological control of aphids by hoverfly larvae in cereal fields *J. Econ. Entomol.* **89**(4): 832-840
English
biological control; *Phacelia tanacetifolia*; British Isles; Diptera; Syrphidae

Hoevemeyer, K. 1995 Seasonal and diurnal activity patterns in the hoverfly species *Cheilosia fasciata* (Diptera: Syrphidae) *Entomol. Gen.* **20**(1-2)): 087-102
English (German & English sumary)
seasonal variations; activity patterns; ***Cheilosia fasciata***; diurnal variations; Germany; Diptera; Syrphidae

Hurkmans, W. & Hayat, R. 1997 Ethology and ecology of *Merodon* (Diptera, Syrphidae) in Turkey II: descriptions of new species and notes on other syrphid flies. *Dipterist Digest* **3**(2): 62-78

Khalil, Z., Whalley, W.M., & Sullivan, M.S. 1997 Some bacteria, fungi and yeast isolated from free-living *Episyrphus balteatus* (Diptera, Syrphidae). *Dipterist Digest* **3**(2): 56-58

Kassebeer, C.F. 1995 [*Pipizella thapsiana* n. sp. from the High Atlas (Diptera: Syrphidae) contribution to Moroccan hoverflies.] *Entomol. Z.* **105**(13): 260-264
German (English sumary)
The genus ***Pipizella*** Rondani 1856 is recorded for the first time from Africa with ***Pipizella thapsiana*** n. sp., described from the High Atlas Mountains of Morocco.
new species; ***Pipizella thapsiana***; Morocco; Diptera; Syrphidae

Kitching, R.L. & Orr, A.G. 1996 The foodweb from water-filled treeholes in Kuala Belalong, Brunei *Raffles Bull. Zool.* **44**(2): 405-413
English
food webs; community composition; Borneo, Brunei, Kuala Belalong; microhabitats; Anura; aquatic insects; Oligochaeta; Copepoda; Borneo; tree holes; Brunei, Kuala Belalong; freshwater crustaceans

Kramer, I. 1996 Biodiversity of arthropods in "wandering" fallows and its valuation, based on ground beetles, hoverflies and aculeate hymenoptera. *Agraroekologie Bern Switzerland Verlag Paul Haupt* **17**, 149 Pp
German (German & English sumary)
books; Insecta; species diversity; agricultural land; Carabidae; Syrphidae; Hymenoptera; Coleoptera; Diptera

Lee, H.L. 1994 Larvae of *Eristalis* spp (family: Syrphidae) found in a human cadaver in Malaysia *J. Biosci. Penang* **5**(1-2): 67-68
English
Larvae of the drone fly, ***Eristalis*** species were recovered from the decomposed corpse of a new-born baby found floating in an irrigation canal. This is the first report of the presence of the aquatic stage of the fly in human cadaver.
cadavers; ***Eristalis***; Malaysia; Diptera; Syrphidae; larvae

Li, Qingxi & Liu, Yanliang 1995 Notes on the genus *Tigridemyia* Bigot with the description of a new species from China (Diptera: Syrphidae) *Entomol. Sin.* **2**(4): 316-320
English (Chinese & English sumary)
taxonomic revision; new species; ***Tigridemyia***; China; Diptera; Syrphidae

MacGowan, I., Gilbert, F.S. & Rotheray, G. 1997 The status of *Melanostoma dubium* (Diptera, Syrphidae). *Dipterist Digest* **3**(2): 79-87

Marcos Garcia, M.A. & Isidro, P.M. 1995 First data of *Brachypalpus valgus* (Panzer, 1798) and *Chrysotoxum parmense* Rondani, 1845 (Diptera: Syrphidae) in the Iberian peninsula: Pollen characterization of their feeding. *Bol. Asoc. Esp. Entomol.* **19**(3-4): 141-147
Spanish (Spanish & English sumary)
The first Iberian specimens of the genus ***Brachypalpus*** and species ***Chrysotoxum parmense*** have been caught in the Font Roja Natural Park (Alicante, Spain). The presence of these two species and the ***Pnilota anthracina***, indicates the importance of this Mediterranean holm oak sheltering threatened species in nearby countries like France and Germany. The pollen types found in the alimentary canal of syrphids, are indicated for the first time.
pollen; ***Brachypalpus valgus***; ***Chrysotoxum parmense***; diets; Spain; Diptera; Syrphidae

O' Carroll, D.C., Bidwell, N.J., Laughlin, S.B. & Warrant, E.J. 1996 Insect motion detectors matched to visual ecology *Nature* **382**(6586): 63-66
English
Insecta; vision; visual perception; ***Eristalis tenax***; velocity; movements; visual acuity; Syrphidae; Diptera; Sphingidae; Lepidoptera

Ottenheim, M.M. & Holloway, G.J. 1995 The effect of diet and light on larval and pupal development of laboratory-reared *Eristalis arbustorum* (Diptera: Syrphidae) *Neth. J. Zool.* **45**(3-4): 305-314
English
diets; light; development; ***Eristalis arbustorum***; mass rearing; Diptera; Syrphidae; larvae; pupae

Ottenheim, M.M., Volmer, A.D. & Holloway, G.J. 1996 The genetics of phenotypic plasticity in adult abdominal colour pattern of *Eristalis arbustorum* (Diptera: Syrphidae) *Heredity* **77**(5): 493-499
English
Eristalis arbustorum; genetic variance; development; temperature; color; abdomen; environmental factors; Syrphidae; coloration

Ottenheim, M.M., Waller, G.E. & Holloway, G.J. 1995 The influence of the development rates of immature stages of *Eristalis arbustorum* (Diptera; Syrphidae) on adult abdominal colour pattern
Physiol. Entomol. **20**(4): 343-348
immature stages; development; adults; coloration; *Eristalis arbustorum*; Diptera; Syrphidae

Palmer, C. 1997 *Parasyrphus nigritarsis* (Diptera, Syrphidae) in Hampshire *Dipterists Digest* **4**(2): 60

Palmer, C. 1997 *Epistrphe melanostoma* (Diptera, Syrphidae) in Hampshire *Dipterists Digest* **4**(2): 71

Perry, I. 1997 *Callicera aurata* in Suffolk found breeding in birch. *Dipterist Digest* **3**(2): 53

Rojo, S., Hopper, K.R. & Marcos Garcia, M.A. 1996 Fitness of the hoverflies *Episyrphus balteatus* and *Eupeodes corollae* faced with limited larval prey *Entomol. Exp. Appl.* **81**(1): 53-59
English
fitness; food availability; ***Episyrphus balteatus***; ***Eupeodes corollae***; oviposition; Diptera; Syrphidae

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**: 127-134

Sheppard, A.W., Aeschlimann, J. P., Sagliocco, J.L. & Vitou, J. 1995 Below-ground herbivory in *Carduus nutans* (Asteraceae) and the potential for biological control *Biocontrol Sci. Technol.* **5**(3): 261-270
English
Carduus nutans; biological control; weed control; ***Cheilosia corydon***; *Hadroplontus trimaculatus*; Curculionidae; Coleoptera; Syrphidae; Diptera; herbivory; roots

Speight, M.C.D. 1996 A mass migration of *Episyrphus balteatus* and *Eupeodes corollae* arriving in the south-west and remarks on other migrant hoverflies (Diptera: Syrphidae) in Ireland *Ir. Nat. J.* **25**(5): 182-183
English
migration; ***Episyrphus balteatus***; ***Eupeodes corollae***; Ireland; Syrphidae; Diptera

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

Sugiura, N. 1996 Pollination of the orchid *Epipactis thunbergii* by syrphid flies (Diptera: Syrphidae)
Ecol. Res. **11**(3): 249-255
English
Epipactis thunbergii; morphology; pollination; Diptera; Syrphidae; ***Sphaerophoria macrogaster***

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

Verlinden, L. *1995 Sphaerophoria bankowskae* Goeldlin, 1989 (Dipt., Syrphidae): First description of the female: Some recent records of the *Sphaerophoria interrupta* (Fabr.) group from the Alpine Region
Bull. Ann. Soc. R. Belge Entomol. **130**(3): 271-276
English (Dutch & English sumary)
A first description is given of the female of ***Sphaerophoria bankowskae*** Goeldlin (Diptera, Syrphidae), followed by a number of spring records of several species of the ***Sphaerophoria interrupta*** Fabr. group from diverse regions in the Alps.
morphology; ***Sphaerophoria***; France; Diptera; Syrphidae; females

Verlinden, L. 1995 Additional records of *Cheilosia orthotricha* Vujic & Claussen, 1994 (Diptera, Syrphidae) from Belgium and the Alps *Bull. Ann. Soc. R. Belge Entomol.* **130**(2): 227-228
English
geographical distribution; Belgium; Diptera; Syrphidae

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

Wacht, S., Lunau, K. & Hansen, K. 1995 Optical and chemical stimuli control pollen feeding in the hoverfly *Eristalis tenax* *Entomol. Exp. Appl.* **80**(1): 50-53
English
visual stimuli; chemical stimuli; chemical stimuli; pollen; feeding; ***Eristalis tenax***; Syrphidae; Diptera

Watt, K.R., Hancock, E.G., Horsfield, D. & MacGowan, I. 1997 Rare and local Diptera from the Tay reed beds in Scotland. *Dipterist Digest* 4(1): 30-34

Wertheim, B. & Ottenheim, M.M. 1996 Survival of *Eristalis arbustorum* L. (Diptera: Syrphidae) under field and semi-field conditions *Proc. Sect. Exp. Appl. Entomol. Neth. Entomol. Soc. N. E. V.* 7: 123-126
English
survival; ***Eristalis arbustorum***; Netherlands; Diptera; Syrphidae

Whitcomb, R.F., Gasparich, G.E., French, F.E., Tully, J.G., Rose, D.L., Carle, P., Bove, J.M., Henegar, R.B., Konai, M., Hackett, K.J., Adams, J.R., Clark, T.B. & Williamson, D.L. 1996 *Spiroplasma syrphidicola* sp. nov., from a Syrphid fly (Diptera: Syrphidae) *Int. J. Syst. Bacteriol.* 46(3): 797-801
English
Spiroplasma syrphidicola; taxonomy; microscopy; media culture; DNA; ***Eristalis arbustorum***; Syrphidae; Diptera

White, A.J., Wratten, S.D., Berry, N.A. & Weigmann, U. 1995 Habitat manipulation to enhance biological control of *Brassica* pests by hoverflies (Diptera: Syrphidae) *J. Econ. Entomol.* 88(5): 1171-1176
English
habitat; biological control; pests; Brassica; New Zealand; Aphididae; Homoptera; Lepidoptera; Diptera; Syrphidae

Wnuk, A. & Gut, B. 1994 The attractiveness of wild Umbelliferae flowers to aphidophagus Syrphidae (Dipt.). *Pol. Pismo Entomol.* 63(1-2): 197-206
Polish (English sumary)
509 aphidophagous syrphids were collected from flowers of 8 wild umbellifers. 25 aphidophagous species were identified, the following being the most abundant: ***Syrphus vitripennis*** Meig., ***Episyrphus cintellus*** (Zett), ***Sphaerophoria menthastri*** (L.), ***Sphaerophori scripta*** (L.). Flowers of *Conium maculatum* and *Aegropodium podagraria* were the most attractive for adults.
flowers; attractancy; Umbelliferae; Apiaceae; Amphididae; Diptera; Syrphidae