HOVERFLY NEWSLETTER

NUMBER 18
JULY 1994

Hoverfly Recording Scheme *Biological Records Centre*

It is always a pleasure to be compiling the first newsletter of the year as the closing date for copy coincides with the start of spring when the season's first sightings of hoverflies are eagerly anticipated. Another keenly awaited event is the forthcoming appearance of Graham Rotheray's colour guide to hoverfly larvae (see **Announcements**). Late last season Keith Alexander passed me a record for a larva of *Epistrophe eligans* at Whitcliff Park in Gloucestershire. This set me thinking that it is probably important when recording larvae to annotate the record card to that effect; an autumn record of *E. eligans* might be considered of doubtful validity if it were assumed to be an adult. I raised the matter with Stuart Ball, who confirmed that larval records should be clearly indicated as such.

Readers will of course know that Graham Rotheray was the previous editor of this newsletter. Since relinquishing the editorship, Graham has continued to compile the list of Recent Literature references. With effect from this edition, the task has been taken over by Kenn Watt. My thanks to Kenn for agreeing to do this, and to Graham for his contributions in the past.

Readers will recall the article by Francis Gilbert in **Hoverfly Newsletter No. 15**, on Hoverfly hunting in Algeria, in which he described the work in that country of Dr Boudjema Samroui and Ms Sihem Djellab. I am pleased to include in the following pages a further article on their work. I wish to express my thanks to them and to all who have submitted contributions to this newsletter. I hope to follow the previous practice of getting the next newsletter out on Dipterists' Day in November. Articles for that will be most welcome. Please ensure that they reach me by 1 September 1994; **David Iliff, Green Willows, Station Road, Woodmancote, Cheltenham, Glos, GL52 4HN**.

CONTENTS

HOVERFLY RECORDING SCHEME UPDATE:

DATASET EXCEEDS 200,000 RECORDS

Stuart Ball and Roger Morris

In November we were pleased to report that all machine-readable data from BRC had been checked; with data trawled in machine-readable form and data entered from RA33s and Gen7s the computerised dataset comprised 181,000 records. Since then, all RA33s received in 1993/94 have been entered and a substantial proportion of backlog data on Gen7s has also been entered. Additional machine-readable data from the Norfolk field meeting and also Alan Stubbs (about 2,500), have contributed to expansion of the dataset to over 209,000 records. As will be seen from the accompanying maps coverage has improved a great deal.

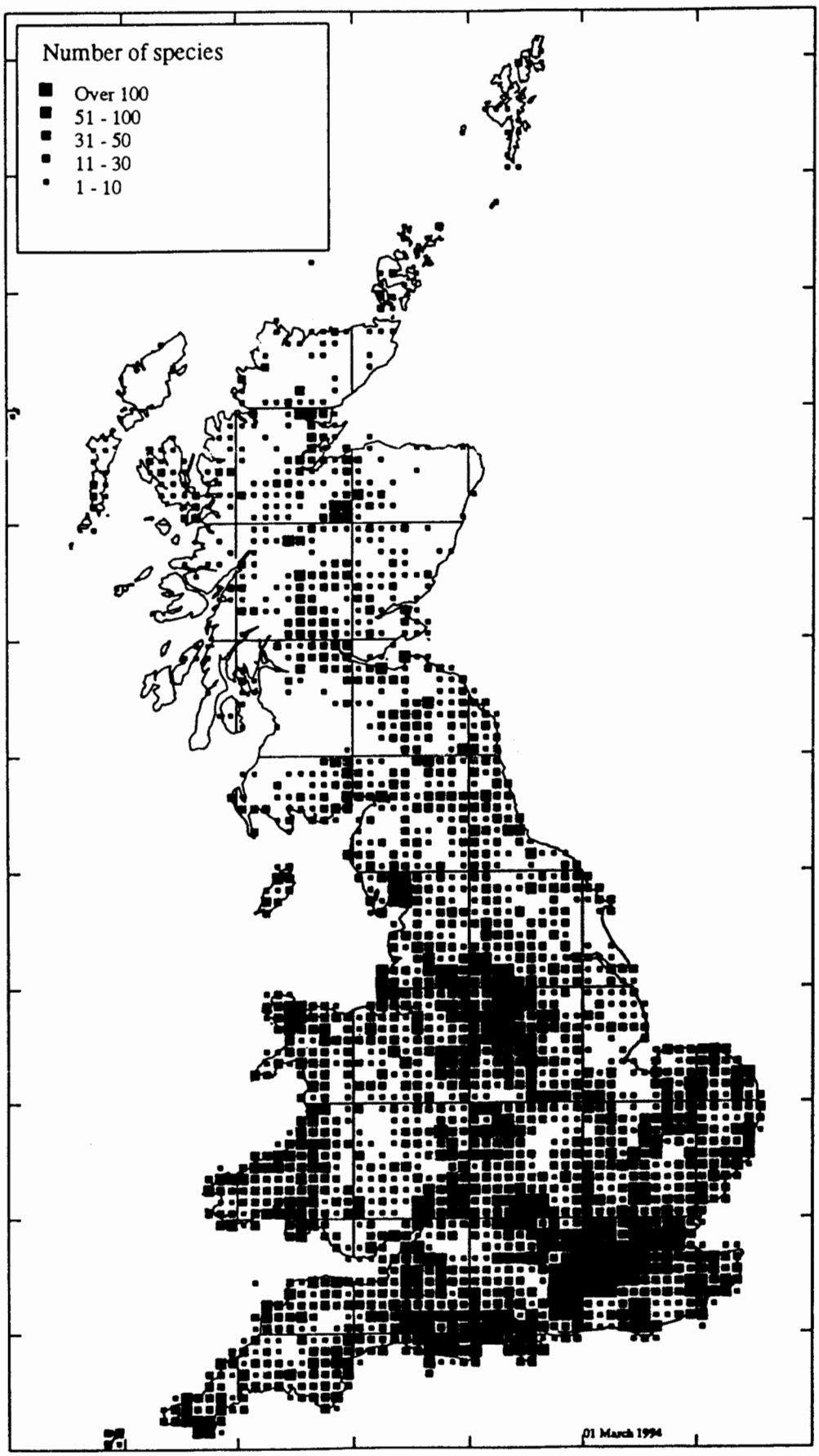
A substantial number of records remain on Gen7s and will be entered over the next year. These include the commoner species from Essex (perhaps 6,000 records) and a big batch of cards from Doncaster Museum. We also know of a number of computerised datasets which have yet to be incorporated, and therefore the final dataset will probably exceed 300,000 records. Data entry is likely to continue well into 1995 and consequently anyone who has not contributed since the original trawl is invited to forward additional records. RA33s are very straightforward to enter and therefore such data can easily be accommodated before we produce provisional maps in 1996. A number of poorly recorded areas remain, particularly north west England, south east Scotland, central Wales, Wiltshire, Lincolnshire and the ouse Washes. Do please bear these areas in mind when planning a recording trip.

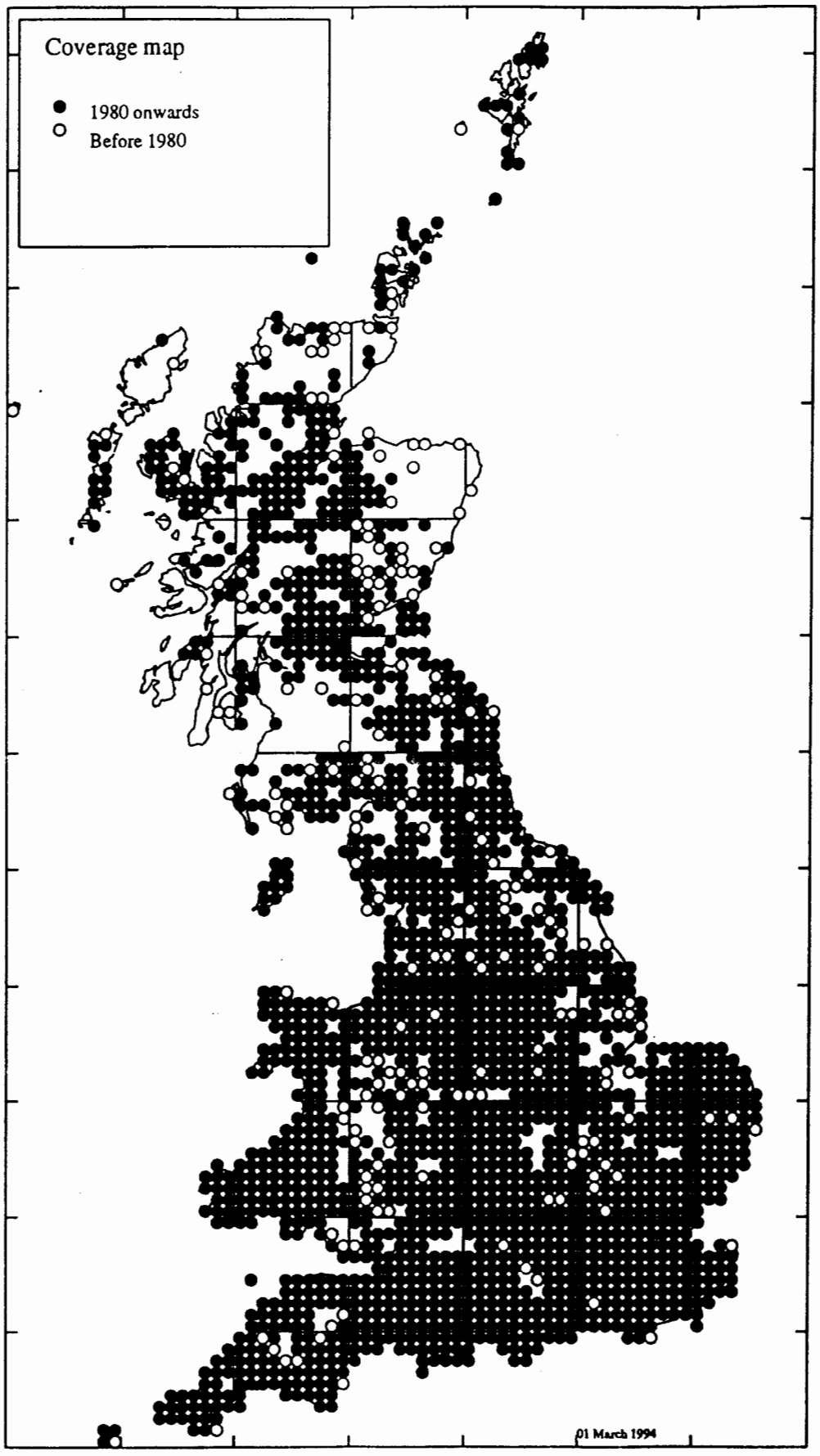
This last season was particularly exciting because we were fortunate enough to rediscover *Eristalis cryptarum* at a location on Dartmoor. We hope to produce a more detailed report of this discovery in Dipterists' Digest, but in the meantime, anyone who wants to assist in finding new sites for this very rare species should look at boggy areas in the south west. Roger Morris will lead a trip to Dartmoor in September 1994 if interest is expressed by recorders. Please contact Roger Morris at 241 Commonside East, Mitcham, Surrey, CR4 1HB.

VOLUCELLA INANIS: COLIN PLANT'S RESPONSE TO EDITOR'S "INANE" COMMENTS

In his article entitled "*Volucella zonaria* unusually abundant in Eastern London" (**Hoverfly Newsletter No. 13, November 1991**), Colin Plant wrote that both *V. zonaria* and *V. inanis* were "regulars" in Eastern London. Although I had found *V. zonaria* on a number of occasions, at the time the article appeared I had never seen its smaller lookalike *V. inanis*, and was anxious to remedy this situation as soon as possible. I therefore wrote to Colin, who suggested some sites where I would be likely to find the species. These included Belhus Country Park near Aveley in Essex.

Colin's advice proved to be excellent; I went to the country park on 23 July 1993, and, in Running Water Wood, I found a male *V. inanis*. I photographed this hoverfly, but was rather dissatisfied with the quality of the results. I therefore returned to Belhus Country Park on 31


Number of species
Over 100
51 - 100
31 - 50
11 - 30
1 - 10
01 March 1994


Coverage map
1980 onwards
Before 1980
01 March 1994

July 1993; on this occasion I found no *V. inanis* in the woods, but several examples, all males, on thistles around the perimeter of the car park. The following day I went to Oxshott Heath in Surrey, where again I encountered several *V. inanis* (both sexes); all of them were either in the heath car park (on *Solidago*), or on bramble growing at the edge of the heath adjacent to the railway station car park.

When I wrote to Colin to acknowledge receipt of his article on *Brachyopa*, which appears on page 9 of this issue, I thanked him for his help in finding *V. inanis*, and mentioned to him the apparent association with the car parks, though I dismissed the fact as a mere chance of no great significance. Colin's reply was most interesting, and reinforces the message that one should not ignore any phenomena when recording. He wrote:

"This letter is prompted by your apparent surprise that *Volucella inanis* was commonest in the car park at Belhus Woods, rather than elsewhere in the country park. I find it rather unsurprising that a species whose larvae are obligatorily associated with wasps' nests should be numerous in an area where wasps themselves are most numerous. My hymenopterist friends tell me that very often in situations such as that at Belhus Park, the wasps will nest quite close to areas where there is a regular supply of food and that there is likely to be a greater concentration of nests around the car park than elsewhere in the woods. Perhaps, then, it is no real surprise that the fly is commonest here too?"

"What is not known is how *inanis* females find host nests. Random searching, coupled with 'luck' seems unlikely. Perhaps they are attracted to wasp pheromones? The possibility that they follow wasps back from feeding areas should not be overlooked either. A nice research project for somebody with the time to sit around watching hoverflies all day!"

In subsequent correspondence on the matter I remarked to Colin that on each of the three occasions it was not until the afternoon that I saw any *V. inanis*, although I had been at the site during the morning. Colin replied that his recollection was that most of his observations of the species were probably also in the afternoon.

SCAEVA SELENITICA IN NORTH WALES

Joan Morgan
Bryn Gwynt, Tregarth, Bangor, Gwynedd

This large hoverfly with very hairy eyes is scarce in North Wales, hence my surprise at finding a female indoors on my stairs at Tregarth near Bangor on 9 October 1993. The only other record I have for Vice County Caernarvonshire is of one which I took in a mercury vapour trap in Bangor on 17 May 1963. There appear to be no records for other North Wales vice counties except for Merioneth, where P N Crow took 23 between 20 August and 26 September 1977 in the Trawsfynydd area, and 4 specimens in 1979 at Abergeirw and Penrhyndeudraeth. Species of the genus *Scaeva* are well known to be migrants, which could explain the apparent influx into the area of *S. selenitica* for the first time in 1977.

THE HOVERFLIES OF NORTH-EAST ALGERIA: A PRELIMINARY ACCOUNT

S Djellab & B Samroui
University of Annaba, I.S.N., Annaba, Algeria

The wetland complex of El Kala (78,000 ha), which houses a national park, offers a large array of diverse habitats with a rich flora and fauna. Due to the geographical position of Algeria and past climatic fluctuations, the area is a biogeographer's dream, as Palaearctic, endemic, Afrotropical and Euroasiatic species can be met.

A survey of the insect fauna of the El Kala National Park and neighbouring areas was started at the University of Annaba by one of us (B.S.) in 1988, and a systematic study of hoverflies was initiated in 1991. Different habitats (cork oak forests, zeen oak forests, pine plantations, lakes, marshes, sand dunes and maquis) have been sampled by butterfly nets and malaise traps over the last two years.

The North African fauna is mainly known from the recent work of Claussen (1989) and Claussen and Hauser (1990) who studied the hoverflies of Morocco and Tunisia. In contrast to these two countries, the hoverfly fauna of Algeria is still poorly known, as only occasional collecting efforts were made previously. Séguy (1961) mentions specifically 28 species with poorly defined localities. Pek (1988) lists 55 species from Algeria and 60 for North Africa.

Our results are still being processed but nevertheless one could safely state that the area lived up to our expectations with a preliminary total of 72 species, several of which are new to North Africa with some possibly new to science. Three subfamilies totalling 14 tribes and 34 genera are found within the confines of El Kala National Park. Of these there are 7 new genera for North Africa (*Dasysyrphus, Parasyrphus, Ferdinandea, Chamaesyrphus, Pelecocera, Neoascia* and *Brachypalpus*). Here is a preliminary list of the tribes and genera found so far (we follow Verlinden's classification, 1991):

Subfamily Syrphinae:
- Tribe Syrphini:
  1. *Epistrophe*
  2. *Metasyrphus*
  3. *Scaeva*
  4. *Dasysyrphus*
  5. *Parasyrphus*
  6. *Xanthogramma*
  7. *Episyrphus*
  8. *Sphaerophoria*
- Tribe Chrysotoxini:
  9. *Chrysotoxum*
- Tribe Melanostomatini:
  10. *Xanthandrus*
  11. *Melanostoma*
  12. *Platycheirus*

Tribe Paragini:
13. *Paragus*

Subfamily Milesiinae:
Tribe Cheilosiini:
14. *Cheilosia*
15. *Ferdinandea*

Tribe Pelecocerini:
16. *Chamaesyrphus*
17. *Pelecocera*

Tribe Chrysogastrini:
18. *Myolepta*
19. *Orthonevra*
20. *Neoascia*

Tribe Eumerini:
21. *Eumerus*

Tribe Microdontini:
22. *Microdon*

Tribe Volucellini:
23. *Volucella*

Tribe Xylotini:
24. *Xylota*
25. *Brachypalpus*
26. *Syritta*
27. *Spilomyia*

Tribe Cerioidini:
28. *Ceriana*

Tribe Merodontini:
29. *Merodon*

Subfamily Eristalinae:
Tribe Eristalini:
30. *Helophilus*
31. *Parhelophilus*
32. *Eristalis*
33. *Myathropa*

Additionally, we have an unidentified genus in the Syrphini.

We have already started sampling habitats outside the North-East to cover, hopefully, the whole of Algeria. It is possible (in fact, we expect it) that the fauna of the El Kala wetlands will be markedly different from the rest of Algeria. More students have joined the fray and the major goal is a thorough study of the life-history of Algerian hoverflies.

Finally we acknowledge with gratitude the tremendous help of Dr F Gilbert (Nottingham University, UK), Dr P Grootaert (KIBN, Brussels) and K Decleer (R.U., Ghent, Belgium) in our search for the elusive literature dealing with North African hoverflies.

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Claussen, C & Hauser, M (1990): Neue Syrphiden vorkommen aus Marokko und Tunisien (D.S), *Entomofauna* **11**, 433-438.

Pek, L V (1988): Syrphidae, in A Soos & L Papp (eds): *Catalogue of Palaearctic Diptera,* vol 8. Elsevier, Amsterdam.

HOVERFLIES IN HYDE PARK, CENTRAL LONDON

Alan Stubbs
181 Broadway, Peterborough, PE1 4DS

A lunchtime stroll in Hyde Park on 16 June 1986 was put to good use by looking for tree trunks with seepages. Sure enough some of the horse chestnuts had the required habitat, the largest seepage having a *Brachyopa*. An attempt to catch the specimen without a net failed but I did manage to snatch a male *Criorhina floccosa* which settled at the base of a large chestnut with a partly rotten trunk. The next day, armed with a small net, my return to the *Brachyopa* tree proved that the insect was *B. insensilis*.

It is interesting that some scarce hoverflies of unsound trees should still be present, even though the elms have gone. Presumably the *Criorhina* breeds in rot holes, and some trees have rot holes high up which may support *Mallota*, which used to occur here.

Three days recently spent in the New Forest produced neither of the two species caught in Hyde Park.

REQUEST FOR HOVERFLY LARVAE

Boyd Barr
New School House, Carnan Road, Arinagour, Isle of Coll, PA78 6TA
Tel. 08793 315; Fax. 474

A recent request for hoverfly larvae to various listed recorders has yielded very little to date. I am therefore extending the request to the pages of the *Hoverfly Newsletter* in the hope that a more positive response is forthcoming. With the imminent release of Graham Rotheray's publication on hoverfly larvae it is perhaps the best time to make such a request.

I am currently looking at various genera of Syrphidae, in particular, the larval mouth parts and various internal organs. This is to attempt to establish possible changes in feeding activity and food source requirements within the instar development of various species within the genera. This will hopefully illuminate some of the grey areas which exist in our somewhat poor knowledge relating to the larvae of hoverflies.

Current genera being sought are Microdontinae, Volucellini and Chrysotoxini. Other genera would be welcome, even the more common species from various parts of the British Isles. Larvae, either preserved or live, would be equally welcome, but must be accompanied with collection data.

I would be very happy to hear from anyone who would be interested in searching for hoverfly larvae and, indeed, from any individual who has any!

FAILING TO FIND *BRACHYOPA* LARVAE IN THE SOUTH-EAST - A REPLY!

Colin W Plant
Newham Museum Service, East Ham Nature Reserve, London, E6 4HN

In the last *Hoverfly Newsletter* (No. 17) Graham Rotheray wonders what is so difficult about searching for *Brachyopa* larvae in sap runs. Since you mention me by name, Graham, I can tell you - for the last couple or three years, in Essex and the London area at least, we have had so little rain that the sap runs have almost all dried up! In fact the last year I found any decent sap runs was the year that you and I were on the trip you referred to in the last newsletter.

Learning from first hand experience in the field is, in my opinion, the most effective way of learning anything to do with field entomology and I owe Graham my gratitude for showing me how to find larvae of *Brachyopa insensilis* in sap runs on horse chestnut. On the basis that I now probably know what to do (and how to do it) I have searched for larvae on a number of occasions. It seems that by no means every sap run is deemed suitable for oviposition by the female *B. insensilis*, even though she may be sitting next to it when the entomologist arrives. First, I have only ever found adults on or in association with, or larvae present in, sap runs on either horse chestnut or sycamore, though I have encountered female *B. scutellaris* once on an oak tree with a large sap run in Somerset and on several occasions in association with oak sap-runs in France. Second, the size of the sap run seems possibly important: not the vertical "fall" of sap so much as the depth of the gooey stuff on the trunk. Thirdly, the consistency and smell of this gooey stuff is also evidently important.

Almost every time I have encountered *B. insensilis* at a sap-run, the run has been in partial shade - not permanent or deep shade, but not totally exposed to the sunshine either. Presumably, this allows the retention of water in the run (it would evaporate more rapidly in direct sunshine) and so renders the run able to support larvae. Trees within a woodland, or forming part of a small copse, or else surrounded by scrub seem favoured whereas totally exposed trees (eg in a roadside situation) are usually (though not always) ignored by the flies - presumably also for the same reason. Over the last three years prior to 1993, here in the south-east we have had very little rainfall and consequently the uptake of water by trees has been reduced; this is clearly evidenced by the dead crowns poking up above the woodland canopy. Sap runs are basically the result of mechanical wounds, so whether the tree is able to control the fluid loss through the trunk seems debatable but, notwithstanding this, sap-runs on trees in the south-east have diminished in size proportionately to the diminished rainfall. And with this diminution of sap runs there has been a concurrent and no doubt related scarcity of sap-runs with *Brachyopa* larvae present.

So, the paucity of records of *Brachyopa* larvae from me, though partly a function of my lack of time for adequate field-work, is largely a result of there being none to record. This evident dependence upon a relatively unstable microhabitat may explain the apparent scarcity of the species in some years.

It's not entirely for want of trying, Graham!

XYLOTA XANTHOCNEMA AT FLOWERS OF *RUMEX*

Alan Stubbs
181 Broadway, Peterborough, PE1 4DS

On 20 July 1988, on Woodwalton Fen NNR, Huntingdonshire, a female *Xylota xanthocnema* was seen on a flower head of *Rumex hydrolapathum* in mixed fen with *Phragmites*. The *Xylota* was walking over the surface of the flowers in a fairly positive searching manner, though not stopping significantly at any particular flower. A number of flowers were in a pollen-producing state and it is reasonably certain that the fly was gathering pollen with its proboscis, a matter which could not be exclusively confirmed.

It is unusual to see *Xylota* at flowers, and *Rumex* would seem an unexpected hoverfly lure. There was no reason to believe that aphid secretions were the real attraction. The weather had been warm and humid with cloud cover, the sun making some effort to break through at the time (about 1430 BST). The breeding habitat was assumed to be fen carr, situated as close as 20 metres from the *Rumex*.

FEMALE BEHAVIOUR OF *CHRYSOTOXUM BICINCTUM*

Alan Stubbs
181 Broadway, Peterborough, PE1 4DS

On 6 August 1988 I visited Upwood Meadows NNR, vice county Huntingdonshire, which contains a herb-rich ridge and furrow field. A female *Chrysotoxum bicinctum* was observed for several minutes, during which time it entered two tussocks of coarse grass (*Deschampsia caespitosa*) as if seeking oviposition sites. The tussocks were weak in stature within turf grazed by bullocks. The *Chrysotoxum* flew low over the shorter turf as if uninterested and also dismissed less tussocky bits of longer grass. The larval ecology of *Chrysotoxum* species is still poorly understood, so hopefully even casual observations such as this will give a lead in the future.

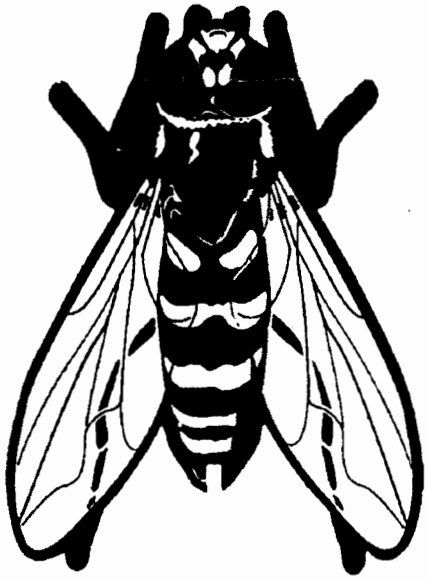
... AND FINALLY, INTRODUCING THE PROPELLER-DRIVE HOVERFLY

Insects and other invertebrates have throughout the ages been chosen as subjects for ornaments or jewellery, have featured in works of art, and even no doubt have been sometimes worshipped as deities. In this century insects are used as emblems or logos, novelties and children's toys.

The quality of artwork involved in these situations can range from crude representations that would make a naturalist squirm to exquisite images which are faithful to the original in detail. In almost every instance the insect involved is likely to be one which would be instantly recognised by the general public, rather than one which would only be known to the enthusiast or specialist. Thus butterflies, honey-bees, ladybirds and dragonflies are often used as subjects for this treatment; one would not normally expect to see a hoverfly feature as such a subject, and I have no recollection of having previously seen a hoverfly employed in a commercial product.

Late last year my daughter spotted a series of toys known as "Whirly Bugs" on sale. They consisted of a tube containing a rubber band which is used to drive a propeller. The tube is clipped on to a cardboard insect shape on one side of which the features of the insects are depicted in colour, while on the reverse side are operating instructions and some details of the species the particular "Whirly Bug" represents. The "Whirly Bugs" are made in China, but apparently for the American market, the species they feature all being common in the USA. My daughter decided to buy one to enclose with her Christmas present to me, and of the six variations on offer, she deliberately chose one which looked to her like a hoverfly. Having bought it she was slightly disappointed to read on the back that (apparently) it was not a hoverfly but was identified as follows: "A flower-loving fly of the family Scenopinidae; this small group of flies can be found in arid regions of the American West, usually perched on flowers; similar to the stiletto fly".

When I unwrapped the parcel, I was able to reassure my daughter that in spite of the description on the back, this "Whirly Bug" was indeed a hoverfly; well, almost! As the black and white photograph shows, the head, thorax and abdomen are a very good and detailed representation of a *Eupoedes* species, almost certainly *E. americanus*. However, sharp-eyed readers will have already noticed that the wing venation is not that of a hoverfly. It appears to be that of the housefly *Musca domestica*! The legs, also, while accurate in structural detail are shown as being entirely black. Those of *E. americanus* should be partly yellow.



It is possible to guess at reasons for this misidentification and the fact that the wings and legs are incorrectly depicted. The misidentification as a "flower-loving fly" may be a result of the fact that in the USA hoverflies are often known as "flower-flies". True flower-loving flies belong to the family Apioceridae, not the closely related Scenopinidae, which are known in the USA as window flies. However, the two families are covered consecutively on the same page of the **Peterson Field Guide to Insects**, where the description given for the Apioceridae is almost word-for-word that which appears on the back of my "Whirly Bug", including the reference to this family's similarity to stiletto flies. The artist may well have painted the subject from the colour photograph of *Eupeodes americanus* which appears (as *Metasyrphus americanus*) in **Simon and Shuster's Guide to Insects**; this photograph shows the insect hovering, an attitude in which the head and body detail is clearly discernible but that of the wings and legs is not.

Yes, it does fly, though in a distinctly un-Syrphid-like manner!

ANNOUNCEMENTS

British Hoverflies, by Stubbs and Falk: The recent reprinting of "British Hoverflies" produced a small number of faulty copies which have plates 9-12 missing and replaced by badly printed versions of other plates. The British Entomological and Natural History Society is making these available at less than half price to members of the Hoverfly Recording Scheme, for possible use as field copies. The books have full keys and descriptions and are in fact perfect in every way apart from the missing plates. Due to increased printing costs, the BENHS has put up the price of British Hoverflies to £26, but by special arrangement, members of the Hoverfly Recording Scheme qualify for the discounted price of £18, or £8 for one of the faulty copies, plus a postage and packing charge currently set at £2.80. Copies are available from the BENHS Sales Secretary, **R.D. Hawkins, 30D Meadowcroft Close, Horley, Surrey, RH6 9EL**.

Colour Guide to Hoverfly Larvae, by Graham Rotheray: Graham's larvae book is now in press, and publication is expected soon. It will be obtainable from **Derek Whiteley, 17 Rustlings Road, Sheffield, S11 7AA**.

RECENT LITERATURE

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Bruno, T.V., Guimaraes, J.H., Santos, A.M.M.D. & Tucci, E.C. 1993 Synanthropic flies (Diptera) and their predators breeding in poultry manure in the State of Sao Paulo, Brazil. *Revista Brasileira de Entomologia* **37**(3): 577-590 Portuguese.

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Torp, E. 1993 New records of rarer Danish hoverflies: 3 (Diptera, Syrphidae). *Entomologiske Meddelelser* **61**(2): 39-60 Danish.

Whittington, A.E. 1993 Lectotype designation for *Graptomyza longirostris* Wiedemann, 1820 (Diptera: Syrphidae). *African Entomology* **1**(2): 261-262 English.

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