

# DIPTERA



## RECORDING SCHEMES BULLETIN NO. 20, MARCH 1986

This issue gives news of forthcoming field meetings and gives some results from last year's Autumn Meeting as well as information on the Recording Schemes.

### ANNUAL MEETING AND DIPTERIST'S SUPPER, 8 NOVEMBER 1986

Make sure you enter this date in your diary now so that you don't miss this highlight in the dipterists year. The usual venue in the British Museum (Natural History) has been booked and further details will be included in the next Bulletin. If you have any suggestions regarding items for inclusion during the programme for the day please write to Alan Stubbs.

### FIELD MEETINGS IN 1986

#### Carmarthen, Dyfed, 5-13 July 1986

A booking has been made with Trinity College, Carmarthen from Saturday 5 July to Sunday 13 July. The accommodation is in single rooms and the charges are £9.95 per day for Bed and Breakfast and evening meal (VAT included) and a large room will be available for exclusive use by the party as a laboratory.

Carmarthen is strategically placed to give access to a wide range of good habitat. Woods, streams, rivers, marshy meadows and other useful habitats are close at hand inland, whilst to the south there are major coastal dunes and saltmarshes which are almost virgin country for dipterists. If you wish, the spirit of adventure can take you into the excellent coastal and inland habitats in Pembrokeshire, including outstanding marshes and boggy areas, whilst to the south-east it is easy to reach the renowned Gower Peninsular and Crymlyn Bog near Swansea. Reconnaissance reports are highly encouraging both as regards habitat quality and species content.

If you are interested in coming to this main summer field meeting please write to Ian McLean, Nature Conservancy Council, Northminster House, Peterborough PE1 1UA, and enclose a deposit of £5 with your booking (cheques payable to I F G McLean).

#### Wyre Forest, 23-26 May 1986

The Wyre Forest is a large area of ancient deciduous woodland from which a number of rare hoverflies (including Chalcosyrphus eunotus and Ferdinandea ruficornis) and other Diptera dependent on dead wood have been recorded in recent years. A field meeting has been organised for the May Bank Holiday week-end, from Friday 23 to Monday 26 May 1986. Up to eight places are available for basic accommodation in a field centre at no charge! Other B&B or hotel accommodation is available locally. For further details please contact Nigel Jones, 66 Long Hey, Whiston, Prescot, Merseyside L35 3JW (Tel No outside working hours 051 430 6713).

#### Pitlochry, Perth 6-8 June 1986

A gathering of Scottish dipterists, with an open invitation to all dipterists, is being arranged for this ideal location with excellent woodland, riverside, marsh and upland habitats available. For details contact Iain MacGowan, 40 Hamilton Street, Tillicoultry, Clackmannanshire.

## Other Field Meetings

It would be good to see further field meetings in the coming season. If there are any initiatives developing please let us know. Bear in mind the address list, which is there to help people contact each other - where people live within range of each other why not arrange your own informal field meeting?

There will be a Scottish Entomology Meeting held at Kindrogan Field Centre, Perthshire on 27-29 June, extending to 2 July if people wish. The cost is £11 per day. This is a field meeting for entomologists of all disciplines and this year is run by Adam Garside (details via him at Dundee Museums and Art Gallery, Albert Square, Dundee DDI IDA, tel 0382 23141). This has become a lively annual event. Graham Rotheray is attending to keep the dipterist's flag flying so he will be glad to hear from any of you who can join him.

The warden of Rye Harbour Nature Reserve, East Sussex, has written to say he would be glad to hold a field meeting. He started with the hoverflies last year and is keen to encourage recording of Diptera on the reserve. The date suggested is 19-20 July and B&B accommodation is available locally - contact Barry Yates, the warden, for details. The habitats represented on the reserve include shingle beach, brackish pools and dykes, arable farmland, sheep pasture with dykes, gravel pits, redbeds and saltmarsh. The warden's address is Barry Yates, 1 Coastguard Cottage, Rye Harbour, Rye, East Sussex BN7 1UN.

## REPORTS OF LAST YEARS MEETINGS

A further report has been received, from Bill Dean, who lead a meeting at Great Breach Wood, Somerset, 18-19 May 1985. Over the two day joint meeting of BENHS/Diptera Recording Schemes, 14 people attended. The Dipterists were all hoverfly collectors. The less frequently seen hoverflies recorded were Heringia heringi, Brachyopa scutellaris, Cheilosia carbonaria, Brachypalpoides lenta, Parasyrphus malinellus, and P. lineolus which are often seen in the wood were not collected, possibly as a result of a very late spring.

The autumn meeting in Leyburn, Yorks, held from 2 to 6 October, was a very enjoyable event with generally fine weather and about 125 species of fungus-gnats recorded, including a Mycetophila species new to GB and an undescribed Trichonta.

## INVITATIONS TO RECORD ON RESERVES

### Herefordshire and Radnorshire Nature Trust Reserves

The Herefordshire and Radnorshire Nature Trust have a fine array of reserves with considerable potential for Diptera. The Trust are keen to encourage the recording of the invertebrate fauna of their reserves, and will grant access permission in return for species lists from entomologists.

This area is known to have a distinctive Diptera fauna, with some rarities currently only known in Britain from sites studied by Wood, Yerbury and Collin earlier this century, and other species otherwise largely found in Scotland. The woodlands and wetlands are particularly impressive, and apart from The Trust Reserves the banks of the River Monnow are well worth further survey.

To encourage response a Trust member has offered free bed and breakfast accommodation, with possibly a simple supper too for up to two visiting entomologists. If you are interested in taking the opportunity to investigate the Diptera of the Trusts Reserves, please contact Mr Jonathan Cooter, Hereford City Museum, Broad Street, Hereford, HR4 9AU (tel: 0432-268121 ex 207/334). Early application is advised.

### Dowrog Common, Pembrokeshire

Dowrog Common lies just over a mile to the north-west of St David's at SM 772270, and consists of some 200 acres of lightly grazed common with extensive development of wet grass-heath. In the north-east corner and around the River Alun and Dowrog Pool, tall herb, marsh and fen communities are developed. There are several small pools in addition to the main one, some permanent, some seasonal.

The Common belongs to The National Trust but is managed by the West Wales Trust for Nature Conservation as a nature reserve. It has been designated a SSSI by the NCC, and has recently been added to the Nature Conservation Review as a Grade 1 Heathland Site, ie on a par with sites such as Thursley and Hankley Commons (Surrey), and Morden Bog (Dorset). This recognition is based on vegetational characteristics but the limited entomological work carried out to date certainly suggests that it is a very important site.

The West Wales Trust are very keen to have further information on the invertebrate fauna, particularly as regards the implications to their management work. It is hoped that a base can be found to support meetings in the area, but in the meantime, if anyone is likely to be visiting West Wales, and would be interested in sampling the Dowrog fauna, then they should contact John Comont, at West Wales Trust for Nature Conservation, 7 Market Street, Haverfordwest, Dyfed SA61 1NF (Tel. 5462), and he will issue permits, give you details on how to find the site, car-parking, and supply maps of the Reserve.

Diptera reported include Stenomicroa cogani, Chrysopilus laetus, Colobaea bifasciella and C. distincta.

Keith Alexander (National Trust).

### Other Reserves

In addition to the two specific invitations, it is worth giving general advice on this subject. Nowadays, nearly all conservation bodies will give permission to record on reserves and other conservation sites, for flies (not butterflies!), if approached in the right way. They will be glad to know what is there. Just indicate that you wish to record (mention BRC schemes etc), but that some collecting will be necessary in order to confirm identifications in this group of insects.

The Nature Conservancy Council, with its NNR's and knowledge of SSSIs (ownerships etc), County Trusts for Nature Conservation etc have their offices listed in local telephone directories. Sometimes the local warden has no authority to give permission or may be anticollecting on principle so it is best to get advance permission from at least the county officer. The Forestry Commission district offices give permission for FC woodlands. For National Trust land, an initial word with Keith Alexander is worthwhile. Ministry of Defence ranges often have local MoD recording groups that, depending on the type of property, may be able to welcome local or visiting entomologists - otherwise consult other conservation bodies who will know the ropes or write to Lt. Col. C N Claydon, Conservation Officer, Ministry of Defence (Room 768), Tolworth Towers, Tolworth, Surbiton, Surrey KT6 7DR.

### COUNTY RECORDING

Following on from the comments under field meetings, that the address list is there to help you develop liaison with your fellow dipterists, it is clear that there is a growing interest in building up county records of hoverflies or Diptera more widely. An objective, such as a county or area list, can be a great stimulus and as more people get involved in recording the national jigsaw slowly fills in and takes shape.

Peter Skidmore is the current archivist for the Diptera records held by the Yorkshire Naturalist's Union, a card index that has been built up by generations of local entomologists. He hopes to publish this for all to see, an immense task, but to be a really worthwhile list he would be glad of the support of all Yorkshire and visiting dipterists by receiving records that you have tucked away. If they are already in the BRC schemes for larger Brachycera, Hoverflies and Sepsids which are being computerised (by BRC) then duplication of effort is unnecessary.

Hoverfly county recording seems to be developing so fast it is difficult to keep pace. We eagerly await Derek Whiteley's list for the Sheffield area and North Derbyshire, shortly to be published by the Sorby Natural History Society (some 160 species). Roger Payne is already onto the third edition for maps of Essex. To mention just a few others:- Dorset and Somerset (Bill Dean), Gloucestershire (D Iffley), New Forest and SW Hants (K Halstead), Dyfed (I Morgan) and Surrey (R Morris) - these are people who have actually said they are doing such lists but no doubt others are doing so in their own county, or who were unaware that others are also gathering records in the same area. So please co-ordinate with one another, it is so much more stimulating, and see if you can rope in new people into the study of flies. It takes a lively band of people to record a county thoroughly.

To aid the growth of local effort, let your recording scheme organiser, or Alan Stubbs at Peterborough, know if you, or a group of you, have adopted a county approach. It will then be possible to issue a further list.

#### **The Dyfed Invertebrate Group**

To encourage interest in the relatively little-studied invertebrate fauna of the old counties of Carmarthen, Pembroke and Cardigan, the 'Dyfed Invertebrate Group' has been established. Field meetings have been arranged at interesting localities and a regular Newsletter will be produced.

Anyone interested - whether residents or visitors - are most welcome to attend any field meetings or to receive the Newsletter. Please contact us for further details at:-

Dyfed Invertebrate Group, Nature Conservancy Council, Plas Gogerddan, Aberystwyth, Dyfed SY23 3EE.

#### **NEWS FROM THE SCHEMES**

##### **Larger Brachycera Scheme**

Your scheme organiser, Tony Irwin, expresses his thanks for the flood of records that he has received. At the November annual meeting it was announced that BRC would be computerising all available data this spring, leading to an atlas. Thanks to the response of recorders, we are well set to get some very interesting maps, together with flight period, habitat and other information.

Test keys by Alan Stubbs to horseflies, some genera of soldier flies and a copy of a modified key by Hobby on robber flies were available at the November meeting. Some very helpful comments were subsequently received. Alan is continuing the revision of keys to the larger Brachycera, the most recent addition being therevids. This is part of the build up to a book parallel with 'British Horseflies', some major chapters of text to larger Brachycera already being in draft.

The call in of records for an atlas is of course only an initial step - a spur to encourage more coverage of recording.

### Hoverfly Recording Scheme

The hoverfly scheme has also been calling in further records so that this data can be computerised following on from the larger Brachycera. Philip Entwistle has been receiving impressive quantities of data, thanks to the diligence of many recorders. This large data set should result in some very interesting maps and other data.

The book 'British Hoverflies' has sold out. A reprint, incorporating some amendments and an appendix of additional information is in hand. The appendix alone will also be available as an offprint. Alan Stubbs passes his thanks to those who have supplied information. Thus the book should be available again by mid or late summer.

### DOLLIES AND EMPIDS STUDY GROUP

At the last Annual Dipterist's Meeting, a discussion was held on the Dolichopodidae and Empididae. Whilst a full recording scheme would be undesirable (it involves a lot of admin with so many species and it is best to keep the focus on existing schemes), it was felt desirable to aid information flow. Additional notes on keys (updating published keys), biological, distribution and habitat notes etc are the sort of thing in mind. Thus Anthony Bainbridge and Roy Crossley have volunteered as editors of a newsheet. NCC will deal with reproduction and distribution.

So, if you want a newsheet, your editors need contributions of text to keep the idea viable. The first newsheet, which attempts to do no more than get the ball rolling, is given full circulation. Future newsheet circulation will be restricted to those who ask to be put on the mailing list, either via the editors (or Ian McLean at NCC).

### A REQUEST TO LEAF MINE FANS

In the autumn of 1984 I discovered a dipterous larva in the mine of a Phyllonorycter moth in an oak leaf. Because the surface of the mine had cracked I assumed that the larva had entered adventitiously. However, in the autumn of 1985 I discovered a second larva in a mine whose surface appeared to be entire, and I had the impression that the larva might have been preying on the moth pupa.

I have, however, just remembered an observation whose significance I failed to grasp at the time. The little moths pupate in cocoons that are substantial for the size of the insect, and further, most of them attach the frass that has lain in the mine to the cocoon.

The 1985 mine containing the dipterous larva the moth pupa was naked. It would seem, then, that the fly larva had been eating both the frass and the silk from which the cocoon had been spun. In these Phyllonorycter mines it is common for all or nearly all the paranchymal tissues to be eaten by the moth larva so that there will be little food for anything else - other than the frass and, it would seem, the silk.

Can any reader suggest what fly - or even what family of fly - might be present? As far as I know there is no previous record of dipterous larvae in lepidopterous mines. Further, there is no British dipterous miner of oaks.

John Robbins, 123b Parkgate Road, Coventry, CV6 4Gf

### INTERESTED IN GALLS?

The British Plant Gall Society has just been launched as the successor to the very stimulating Bulletin of Plant Galls edited by Fred Stubbs.

The annual subscription to the society, including the new journal is £5 pa and further details are available from the Secretary: Dr C K Leach, School of Life Sciences, Scraptoft Campus, Leciester Polytechnic, Leicester (Tel. daytime Leicester (0533) 431011, evenings (0533) 714297).

## INTERNATIONAL NEWSDESK

The Bulletin now goes to a number of dipterists abroad, especially in European countries so that they may know what we are doing, with the invitation to join any of our events if the occasion arises. Many of you have developed your own contacts in other countries, and as the growth in the study of Diptera expands in more and more countries, there is no way that the Bulletin can take on a role of an international newsheet. We do, however, welcome the chance to encourage the exchange of ideas between like minded recorders.

Thus it is a pleasure to quote a letter from the author of the book on the hoverflies of the Netherlands (and Benelux countries). It certainly helps us see how our own recording and mapping forms part of the developing European jigsaw of country mapping, with the opportunities for interpreting distribution and changing distribution.

"Thank you for sending me the Diptera Recording Schemes Bulletin of September. I will, however, not be present on the meeting which, if nearer to our country, I would have attended.

I thought about it and tried to invent something to contribute to the discussion on Diptera, especially something with the British fauna as keystone.

In the Benelux-countries and northern France several rather common and widespread species of flies exist which do not occur in Great Britain. Among the groups I study I know of the Syrphidae Epistrophe melanostomoides Strobl, Dasysyrphus nigricornis Verrall, Platycheirus ovalis Becker (-), Pipiza festiva Mg., Pipizella annulata Mg., Cheilosia argentifrons Hellen, C. canicularis Panzer (-), C. fasciata Schin. et Egg., C. lenis Becker, Psarus abdominalis Fabr., Myolepta vara Panzer (-), Chrysogaster viduata L. and Orthonevra intermedia Lundb. a.o. Several of these are more or less Central-European species (marked (-)), mostly confined to inland localities not reaching the shore opposite England. But there are species, like Chrysogaster viduata L., which are quite common in the small estuaries in France bordering the Channel.

I wonder if we have species here which reached that coast after the Channel was formed, 3000-4000 years ago. That would mean they are representatives of species migrating eastward in very recent times.

When discussing Empidids the species of Empis to be kept in mind should be Empis serotina Lw. and E. nigricans Mg., both occurring in lowland in all of the Benelux.

If such rather recent eastward migration, stopping at the Channel, is a fact is there also very recent migration in that direction? With the British fauna as keystone one can easily prove some species stopping at the Channel, not being able to go further, but there are also species which have not reached the Channel yet? I call to the attention among Syrphids the very recent records of Platycheirus ovalis Becker (described from the Urals) in the Benelux and the even more recent capture of Sphegina sibirica Stack. by Mr. Lucas in Belgium.

Of course the latter records could be the result of insufficient collecting in earlier times. But this insufficient collecting then has been done in the whole of Europe, because these two species were recently recorded for the first time in many countries further inland.

May be the British Dipterologists know in their own groups the same pattern.

Have a good meeting in London.

Yours sincerely V S vd Goot"

Whilst on the international theme, those interested in attending the European meeting of dipterists in Budapest in August are reminded to contact Adrian Pont or Ian White (see previous Bulletin re group travel costs). No doubt some dipterists will also be at the 3rd European Congress of Entomology in Amsterdam which follows directly afterwards on 24-29 August.

## INVERTEBRATE SITE REGISTER

Steven Falk has now largely firmed up a list of species of Diptera which are likely to occur in no more than 100 10km squares in Britain. He wishes to extend his thanks to the many specialists who have advised him on the national and regional status of species. This co-operative venture has upturned a number of misconceptions about the rarity, or alternatively commonness, of many species.

Locality data and ecological information is being assembled for the listed species as far as is practical. It is impossible to gain comprehensive treatment of the approx 2000 species concerned, but some of the main museum collections have been visited, the literature is being covered (at least more recent records) and many individuals have provided their advice. Where there are BRC schemes, the task is that much easier, and NCC has been simultaneously assisting the BRC capacity to process scheme data.

This part of the Invertebrate Site Register will draw attention to those species that, on a national basis, are rated highly in evaluating sites for conservation and in describing management objectives. Clearly there are species of regional importance and it is hoped that supplementary lists will be developed at a local level in due course. The second phase consultation on sites of high value has been started.

Whilst not directly part of the ISR, though related, you may be interested to hear that NCC expects to publish the Red Data Book for insects later this year. The Entomological Bibliography, with its computerised extensive keyword index, is progressing well and will shortly have processed entries for the Entomologist's Monthly Magazine back to 1930 - plenty of Diptera information there.

## EQUIPMENT

### Nets

Bob George, netmaker well known to dipterists, currently markets folding frame nets of 14, 16 and 24 inch diameter. He would be interested to know whether there is a demand for 10 or 12 inch diameter nets. He hopes soon to have spring frame nets, probably of 12 or 14 inch diameter. Net bags are available in black or white.

Everyone has their own style of collecting. The 16 inch folding frame version, with white net bag, has been found the most versatile for all round purposes, including sweeping. The 24 inch is cumbersome and is really a specialist net for sweeping the air and foliage along woodland sides etc. On a long pole it is top heavy and difficult to control whilst on a short handle it is probably underrated for efficiency in sweeping herbage. Smaller nets are far more wieldy for snapping off flies from flowers etc but

they are less efficient for sweeping. A black net bag is only suitable if you wish to net and examine flies one at a time, viewing through the net material. Spring frames are ideal for folding down into your pocket when not in use, and whilst fine for such purposes as flies on flowers, they are not rigid enough for sweeping.

If you are interested in smaller nets or spring frame nets, then let Bob know since he is clearly only going to market the sort of nets people want. Address:- Maris House Nets, 54 Richmond Park Avenue, Queen's Park, Bournemouth, BH8 9DR.

### Dehumidifiers

One recorder recently mentioned that, in his wet part of the country, it was almost impossible to keep a collection without it becoming damp and getting covered in mould. This is probably a widespread problem. Even in the dry SE, this difficulty can arise during long damp winters if your room is prone to dampness.

The simplest and cheapest solution is to keep store boxes in large polythene bags, preferably with some crystals of silica gel which will absorb water (just gently heat crystals to dry them out again). A tight fitting cupboard with an open mesh bag of silica gel crystals will also probably do the trick. The main thing is to dry out the specimens thoroughly before they go into the store box - an anglepoise lamp in a cupboard for an hour or two will do (don't put the heat source too close otherwise the flies may curl up through drying too fast). Alternatively, anchor some thymol crystals in the store box (a bit smelly), as thymol prevents fungal growth.

If you want to look more fancy, then there are commercial dehumidifiers (with crystals) on the market which claim to dry out whole rooms, let alone cupboards. At the time of writing there is, for instance, an advert for units costing £3.99 (+ £1.05 p&p) available from Leroco (Direct Sales) Ltd (Dept OBM 11DH), 77 High Street, Bexley, Kent DA5 1BJ. If anyone has experience as to the performance of such gadgets, please report in.

### NEW PUBLICATIONS

The Royal Entomological Society Handbook to Bibionidae and Scotopsidae, by Paul Freeman and Richard Lane, was published towards the end of last year. This is a welcome addition to the literature with good illustrations and a much more comprehensive treatment than has been available in the past. Price to Fellows of RESL £4.37, to non-fellows £6.25. (RESL address 41 Queen's Gate, London SW7 5HU).

For those who record bibionids, Dr R P Lane and Dr P Freeman are stepping down from our list of specialist advisers. Mr S D'Arcy-Burt is studying this family and is willing to help with identifications and welcomes any material, any numbers. His address is:- Mr S D'Arcy-Burt, Dept of Agricultural Zoology, Queen's University of Belfast, Newforge Lane, Belfast BT9 5PX, Northern Ireland.

Peter Skidmore is the author of the biology of the Muscidae of the World, published by W Junk (price c£76). The bulk of the book consists of a description of the early stages and life history species by species. Many of the species are British and information is given in a very accessible format. There is a great deal of previously unpublished material, including large numbers of excellent drawings. It took 25 years of spare time study to produce! It is an essential platform for further work on the rearing and studies of life histories of British Muscidae. Publishing such specialist works is expensive nowadays, and it is sad that the price is beyond most of those who would best further studies in this country - but try borrowing it through your local library who ought to be able to loan it from the National Lending Library.

## WELCOME TO NEW RECORDERS

It is pleasing to find that the number of people registering with the various Diptera recording schemes continues to grow. In particular we have incorporated all mosquito recorders (Mosquito Study Group) into the full address list for the first time and we have a steady increase in hoverfly recorders.

The recording schemes are focusing recording effort on selected families of flies, including the most popular families, and in so doing are trying to promote the study of Diptera as a whole. It is not easy for someone working in isolation, whether at the stage of trying to learn their way into a group of flies, or as a specialist remote from others who are gaining information of interest. The schemes, this Bulletin, our various meetings and other activities exist to overcome this isolation, to help those who seek advice and to co-ordinate otherwise dispersed effort and information. Distribution atlases are but one result of this activity; it is the advance of knowledge of the life histories, ecology, improving keys to identification and all other aspects of the study of flies that we are concerned with.

Thus please know that you are welcome - we are, I hope, a friendly and informal lot. And as said earlier, the address list is there to help you liaise with others with similar interests, especially in your own area.

## CENTRAL PANEL REPRESENTATIVE FOR SCOTLAND

Dr Graham Rotheray has taken on the role of the Central Panel's representative in Scotland. It has been most encouraging that an active group of recorders has been growing in the last few years, being especially strong on hoverflies. Graham is well known to us for his talks on hoverflies at our annual meetings and is ideally based to help encourage others. (Address: Department of Natural History, The Royal Scottish Museum, Chambers Street, Edinburgh EH1 1JF).

## AND NOW ..... HIPPOBOSCIDS BITE BACK

Remember that horrendous tale about mass dipterous carnage in the last Bulletin. Yes, we are assured by no lesser authority than Tony Hutson, that those nasty swallows suffer dearly for out pooting us (though not so much as swifts and martins). When you see those wretched birds swooping about, just look upon them as mobile habitat. And those nestlings may have something much worse than crabs in their underclothes. An exact formula for conversion of units of swallow into units of fly is not currently available, but there must be a useful number of delightful Hippoboscids being nurtured by the symbol of summer. Also, perhaps we could learn to see some of those things hopping across our lawn in a different light.

Central Panel of Diptera  
Recording Scheme Organisers

Co-ordinator  
A E Stubbs  
Nature Conservancy Council  
Northminster House  
Peterborough PE1 1UA  
(Telephone: Peterborough (0733) 40345)