



BULLETIN OF THE **Dipterists** FORUM

Affiliated to the British Entomological and Natural History Society

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DIPTERISTS FORUM UPDATE

The Dipterists Forum was launched at Dipterists Day on 12 November 1994 at the Natural History Museum, London. We now have a fully fledged society. How the Forum develops from now is up to the membership. The committee members are:

Roy Crossley (Chairman), **Alan Stubbs** (Secretary), **Jon Cole** (Treasurer, coopted after the AGM), **Liz Howe** (Membership Secretary), **Martin Drake** (Bulletin Editor, a change of post title made at the first General Committee meeting), **Patrick Roper** (Publicity Officer), **Stuart Ball, Steve Falk, Roger Morris, Chris Spilling** (elected Ordinary Members), **Brian Pitkin** (co-opted Ordinary Member), **Peter Chandler** (BENHS Representative), **Graham Rotheray** (Dipterists Digest Editor).

We held the first general committee meeting on 21 January at the BENHS rooms at Dinton Pastures, Reading. Some items we discussed are covered elsewhere in this Bulletin (Dipterists Digest, new GB Check List, changes to the newsletters), and Alan Stubbs covered many other issues in his report of the Interim Committee in the last Bulletin. Other "highlights" of the General Committee meeting were:

- Bank account. There is a healthy balance, sufficient for foreseen commitments. BENHS have kindly agreed since this meeting that their honorary auditors will inspect our accounts when doing their own, for no charge.
- Constitution. We refined the draft that was circulated with the last Bulletin. A final draft will be circulated in the August Bulletin for approval at the next AGM.
- BENHS kindly have added the Dipterists Forum to their insurance policy at no cost to us. This may be revised next year. The insurance covers third party damage, including liability at field meetings. This is a major saving to a small society and we are grateful for the arrangement.
- Unfilled posts. We still have no secretaries for field or indoor meetings. As these meetings are major functions of the Forum, we are concerned that they may not run as well as previously if no-one takes responsibility for them.
- Membership cards. Several people have expressed concern that we did not issue receipts for their subscriptions. We will issue membership cards in future (perhaps later this summer).
- Disposal of collections. A small working group (Alan Stubbs, Graham Rotheray, Brian Pitkin) will produce a guidance document.
- So far, the Membership Secretary, Liz Howe, has received 182 application forms for Dipterists Forum, Dipterists Digest, or both. As the Bulletin previously went out to about 250 dipterists, we hope that those who have forgotten to join will do so.

The next meeting of the General Committee takes place on 10 November, the day before Dipterists Day. The Executive Committee meets on 22 April to discuss urgent and constitutional matters.

If there are issues that you would like raised, please let Alan Stubbs know in advance of these meetings. Don't wait to express opinions and ideas - its your society.

MEMBERSHIP MATTERS

I would like to clarify the procedure for becoming a member of Dipterists Forum and for receiving copies of Dipterists Digest. The current application round is for 1995, even though the forms appeared in 1994. If you wish to receive the Bulletin and newsletters, you should join the Forum which costs £5.00. If you also wish to receive copies of Dipterists Digest from 1995 (Volume 2) onwards, then send an additional £7.00 (any DD subs paid for via the Forum membership application form apply to 1995). Requests for Dipterists Digest prior to 1995, ie including Volume 1 parts 1 & 2, should still be sent to Derek Whiteley.

If you would like to join BENHS, please contact their Membership Secretary, Andrew Godfrey, at 10 Moorlea Drive, Baildon, Shipley, W Yorkshire, BD17 6QL.

Here is a breakdown of people's interests in different schemes. 45 people registered interest in all schemes so they are included in the following figures. Chironomids 55; Conopids 118; Craneflies 92; Dixids 53; Empids & Dolis 95; Fungus Gnats 54; Hoverflies 147; larger Brachycera 125; Mosquitoes 51; Pipunculids 72; Sciomyzids 97; Sepsids 72; Tephritids 101.

Liz Howe
Membership Secretary

DIPTERISTS FORUM AGM 1995

The AGM will be held on Dipterists Day (11 November 1995) at the Natural History Museum. Our draft constitution which was circulated with the last Bulletin requires that we have nominations for all posts at least 120 days before the meeting, so names can be advertised in the August Bulletin. Note that nominees must have agreed to stand.

It is anticipated that the present Committee will stand for re-election, maintaining administrative continuity at this very early stage, looking for a start to rotation of Ordinary Members a year or two further on.

Under Draft Constitution 7 (f), all officers (Chairman, Treasurer, Secretary) and those with elected responsibilities (Membership Secretary, Bulletin Editor and Publicity Officer) are open to annual election or re-election. Ordinary Members are elected initially for three years; technically there are two unfilled places. We still have no Field Meeting Secretary or Indoor Meeting Secretary so nominations for these posts would be especially welcome.

BULLETIN NEWS

Welcome to the first of the newly titled Bulletins. I decided to keep to the old numbering system rather than introduce confusion by starting at No 1 again. I think this emphasises the long-standing continuity of the dipterists' recording movement. The big change is the addition of all newsletters of the individual schemes to the Bulletin. These will continue to be produced by the scheme organisers or their newsletter editors as stand-alone productions so you can dismember this composite document for filing under individual schemes if you wish. Every newsletter will be sent out with the Bulletin to every Forum member - the old system whereby you received selected newsletters becomes unwieldy when we in Peterborough have to co-ordinate, produce and mail everything in one go.

The new all-purpose, non-partisan fly on the logo should not offend any sector except the realists. We thank Patrick Roper, the Forum's Publicity Officer, for this. By placing it on each newsletter, we hope to achieve an element of "corporate" image. The other element common to all newsletters is the ISSN (International Standard Serial Number) which is a librarian's filing convenience. We send the Bulletin & newsletters to the British Library so that they can be borrowed through inter-library loans. It does not mean that material in the newsletters cannot be published elsewhere - you can publish any articles in refereed journals without prejudice. The bulletin of the British Mosquito Group, which has not been amalgamated with the Dipterists Forum, has its own ISSN.

For those who have a IBM-compatible computer, it would help me if you send articles on disc (without viruses, please) as well as a paper copy (so I can restore formatting). This goes for the Larger Brachycera Recording Scheme too.

Martin Drake

DIPTERISTS DIGEST

Dipterists Digest is the official journal of the Dipterists Forum. It can play an important role in promoting the work of the Forum. If *Dipterists Digest* is to succeed, it needs the active support of Forum members by subscribing to the journal, submitting papers for publication and by using in their own work the information it publishes.

In 1994, Graham Rotheray finally took over the reins as Editor backed by an Editorial Panel (Peter Chandler, Roy Crossley, Peter Skidmore, Keith Snow, Alan Stubbs, Derek Whiteley and Phil Withers). To bring the journal more in line with conventional standards, a uniform house-style and a year-volume numbering system were introduced. Authors of main papers are now offered 15 free reprints and all papers are refereed. The aim is to produce two issues a year of about 50 pages each, the first issue in April/May and the second in November to coincide with Dipterists Day. The backlog of accumulated paper is almost cleared and the time needed to publish papers should drop to between 4-7 months.

For the time being, the emphasis will be on producing general issues with a mix of articles, notes and papers covering a wide range of dipterological matters rather than single-subject special issues. However, general issues may be slanted toward particular groups or subjects depending on the papers received and, once the journal is fully established, it may be possible to re-introduce special issues.

The journal is not just a vital organ of communication for the Forum, it is a permanent and tangible record of dipterological research and study. Non-Forum members will be encouraged to publish in it, thereby extending its influence and hopefully it will develop to become a journal of lasting value and significance. However, it should always reflect the character and image of the Forum, and be something members are proud of. This is what the Editor and the Editorial Panel will be working to achieve in the volumes ahead.

Dipterists Forum is an exciting development in the history of British dipterology and *Dipterists Digest* is too! If you haven't already, support your journal NOW by taking out a subscription and contributing papers to it.

Graham E. Rotheray

SUMMER FIELD MEETING, AYR (WEST SCOTLAND), 2-9 JULY 1995.

The meeting will be based at an agricultural college. We had not arranged a venue in time to advertise in the last Bulletin but we did announce the meeting at Dipterists Day, so many places have already been taken. The cost will be £99 plus about £5 lab fee. The area is something of a hole in recording schemes so this meeting provides an opportunity for productive square-bashing.

There are a few vacancies left so please contact Roger Morris, who is organising accommodation, as soon as possible, sending him a £30 deposit (cheques made out to Roger Morris, not Dipterists Forum), at 3 Lindale Mount, Renthorpe, Wakefield WF2 0BH.

OTHER MEETINGS

The knapweed gall fly revisited: new evidence on the population dynamics of this famous insect.

Dr Jack Dempster. Wednesday 5 July 1995, London

A RES meeting at 41 Queen's Gate, London. 5.00 for 5.30 start.

AES Annual Exhibition, Saturday 7 October, 1995, Kempton Park Racecourse.

Autumn Field Meeting, 11-15 October 1995

The location will be announced in the August Bulletin. Hot contenders are north-west Midlands or south Wales. We will meet on Wednesday afternoon or evening, and disperse on Sunday afternoon. Contact Alan Stubbs if you would like to attend.

BENHS Annual Exhibition, Saturday 28 October 1995, Imperial College, London

Dipterists Day & Dipterists Forum AGM, Natural History Museum, London, Saturday 11 November 1995.

Cranefly Workshop, Saturday 25 November 1995 (Alan Stubbs)

A BENHS Workshop at Dinton Pastures, Reading. This is aimed at beginners. There will be an opportunity to see and use the BENHS collections. Please contact Ian McLean (Indoor Meetings Secretary) if you would like to attend, on 01480 450554 (evenings).

Bluebottle and Fleshfly Workshop, Dinton Pastures, Reading, Saturday 17 February 1996 (Steve Falk)

A BENHS Workshop at Dinton Pastures, as above.

Cranefly Workshop & Introduction to Flies, March 1996

At the larger Brachycera & conopid workshop this month, we decided that next year's workshop will cover a master class on craneflies and a beginner's introduction to flies. The course will be held at Preston Montford Field Centre, Shropshire; the date has yet to be settled but will be either 8-10 March or 15-17 March 1996, and the cost will be close to £65. The Forum has to place deposits for the number of bedrooms and labs booked so we cannot afford to over-reach ourselves by anticipating more places than needed. If you are interested, contact Roger Morris with a £30 deposit (made out to Roger), address above under the Ayr meeting notice.

Hoverfly workshop, Summer 1996

An introductory course to hoverfly identification will run in July 1996. There will also be some opportunity for more advanced tuition. The course will be based at the Juniper Hall field centre, Surrey, next to Box Hill and close to other high grade sites. More details in a future Bulletin.

Summer Meeting at York, 1996

Roy Crossley has negotiated a good deal with a local school in York for the main summer meeting next year.

BENHS Field Meetings. A complete list is enclosed. Forum members are very welcome to attend even if they are not BENHS members. There may not be a leader for dipterists at every meeting but there will still be flies to be found.

THE MALLOCH SOCIETY

Many people are enquiring about the Malloch Society. In 1987, Scottish-based Dipterists met at Beinne Eighe NNR at the invitation of Iain MacGowan to see if we could find larvae of the then RDB1 hoverfly, *Callicera rufa*, following its successful re-discovery in rot-holes in pines the previous year in Strathspey by Francis Gilbert, Colin Hartley and Graham Rotheray. A long, frustrating morning, clambering over difficult terrain was eventually rewarded by finding two larvae. This extended the known distribution of *Callicera rufa* far into the north and west. Later that evening, during the celebrations that followed, the idea of a Scottish Dipterists Society was born. Those present were Geoff Hancock, David Horsfield, Richard Lyszkowski, Iain MacGowan, David Robertson, Graham Rotheray and Kenn Watt.

Today, the Malloch Society consists of 15 Scottish-based Dipterists and was formed in Edinburgh on 20 June 1988. The Society is named in honour of John Russell Malloch (1875-1963). Malloch was Scotland's finest Dipterist who, following his emigration to the USA in 1909, pioneered the study of Diptera in many regions of the world. From 1988 to 1992, the Malloch Society was run informally as a loose federation of individuals with no annual subscription or fee. However in 1993, due to having to cope with increased amounts of grant-aid, the Society was formally set up with a constitution and a controlling committee.

The aims of the Society are, with reference to Scottish Diptera: to engage in, and promote research; to publish the results; to make a positive contribution to the conservation of Diptera and of the natural environment generally.

Working as team, Malloch Society members meet together over long week-ends to carry out research. We also have an annual indoor meeting with talks followed by a dinner and presentation of the DOTY award (Dipterist Of The Year) inaugurated by Kenn and Alison Watt in 1992.

Fortunately, we have been grant-aided on all our projects and some highlights from the results include discovering two species new to science, finding several species new to Britain, and recording many new to Scotland. We have investigated breeding sites extensively and found the larval stages of numerous species, many for the first time, including many RDB species. Some of these results have been published and we initiated the *Malloch Society Research Reports* for full data-sets as a means of disseminating our work to members, grant-aiding bodies and interested persons.

Although specialising in working as a team, we enjoy and benefit from visitors joining us for fieldwork and for the annual meeting and dinner. Recent visitors include Alan Stubbs, Chris Thompson and Richard Vockeroth. Currently we are working on two main projects: saproxylic flies jointly funded by WWF and SNH, and montane flies funded by SNH. We are always interested to hear of Dipterists intending to visit Scotland or who have information about flies in Scotland. If you would like further information, please contact the Chairman, Iain MacGowan (SNH, Redgorton, Battleby, Perth, PH1 3EW) or the Research Co-ordinator, Graham Rotheray (Royal Museums of Scotland, Chambers Street, Edinburgh, EH1 1JF).

Graham E. Rotheray

PUBLICATIONS

A new list of British Diptera

A project to provide an updated list of British Diptera has been developed over several years, having been stimulated by the successive publications of the 14 volume Catalogue of Palaearctic Diptera. The latter is now complete but of variable accuracy and is itself now out of date because of the 1982 cut-off date for inclusions.

Since the publication of the 1976 "Kloet & Hinks" Diptera check list, nearly 500 additional species have been found in the British Isles and more than 1000 other nomenclatural changes made. Many of the additional species have yet to be reported in the British literature and it is hoped that preparation of a new list will stimulate their rapid publication. The British lists now totals about 6,500 species.

Species lists of all families have now been completed with the emphasis placed on citation of references to all changes and additions to the 1976 list. A letter describing the project in more detail was circulated to specialists in November 1994, requesting their assistance with reviewing and correcting as necessary manuscripts of their respective families. Most of those approached agreed to participate and comments on the lists submitted to them are now being gathered. Anyone wishing to look at the text of a particular group is requested to contact me.

Publication as a supplement to Dipterists Digest is under consideration. At the same time Darwyn Sumner has been developing a new Diptera check list, with the option for additional information on species, which he is supplying on computer disc. He plans to produce comparable lists for all orders and is proposing annual updates. Close liaison is now being maintained with him so that the benefit of involvement by specialists can be reflected in his current and future output.

It is becoming clear that the arbitrary order of genera within families in the previous check lists, based on a suggested order of classification, cannot be maintained, and instead an alphabetical arrangement within higher taxa will be adopted. Recognition of subfamilies and tribes will depend on the state of knowledge of the group. The greatest problems have been experienced with the Syrphidae where there is no agreement among specialists on the higher subdivisions, and an alphabetical order of genera from family level may be adopted. The order of families is also under consideration, as views on higher grouping have been in a state of flux over recent years. Roger Crosskey has suggested following the order in the Manual of Nearctic Diptera. Although this may be a basis, several older family groupings recognised there are no longer tenable and there is still considerable controversy over the composition of some higher groupings. Any views on these matters would be appreciated.

P J Chandler, Western Research Laboratories Ltd, Vanwell Road, Maidenhead, Berks, SL6 4UF.

A further review of some scarce and threatened flies

You are probably aware of *A review of the scarce and threatened flies of Great Britain (Part 1)* by Steve Falk (1991) which lists the status of all species of flies thought to be rare or scarce at that time. JNCC have commissioned Peter Chandler to write detailed accounts of some families not given full treatment in Steve's review, and will cover Nematocera other than Tipulidae, and Schizophora other than Syrphidae. If you have any information on these species (records, observations on habitats, hosts, etc), including failure to find species which you ought to have found if the earlier statuses had been correct, please inform Peter before Easter (he has to complete the project before the end of April this year). Address as above.

The horseflies of Yorkshire by Andrew Grayson. 48 pp. Available from Andrew, c/o The Ryedale Laundry, Kirkbymoorside, York, YO6 6DN. Copies cost £3 each; please make cheques payable to Andrew.

The book is a comprehensive study whose completion took five years of research that included checking many museum specimens. Following the introductory chapters and species accounts is a comprehensive list of all Yorkshire tabanid records. 1km square distribution maps are given for all confirmed Yorkshire species and these are followed by keys to British genera and Yorkshire species. The central part of the book contains black and white illustrations of typical males and females of all confirmed Yorkshire tabanids, plus a representative of the genus *Atylotus* (*A. plebeius*) which has not been found in the area. These 24 illustrations took more than a year to complete and enhance the publication.

Danmarks Svirrefluer by E. Torp, 490 pp., incorporating 21 colour plate with 376 figs., 483 text figs. and 270 maps. *Danmarks Dyreliv* Bd. 6, Apollo Books, Stenstrup, 1994. ISBN 87-88757-28-5, ISSN 0109-7164. Price unknown. [In Danish with English translation in parts].

This book is a revision of the first volume in the series, published in 1984, and now has more figures and twelve colour plates showing a total of 351 pinned specimens providing very good coverage of species. The keys (in Danish) are essentially the same as in the first edition but incorporate a number of changes in taxonomic coverage. The Danish list has increased from 263 to 270 species, including six not recorded this century, compared to 265 species from Britain this century. Some taxonomic changes adopted in the book have been resisted or are unfamiliar in Britain. The distribution maps, covering all species, are substantially updated and there are listings according to status, including Red Data Book. The following species that occur in Britain are extinct in Denmark: *Epistrophe diaphana* and *Pipizella virens* (extinct last century), and *Cheilosia soror*, *Ferdinandea ruficornis*, *Microdon devius* and *Rhingia rostrata* (extinct this century).

This is very fine book but the price (currently unknown) is likely to be high. The keys are difficult to use unless one has the patience to translate Danish, which is possible using a dictionary and by inferring the meaning of technical words from British key characters. The plates and text (biology in English) help one to recognise a number of species currently unknown in Britain. The distribution maps are of interest and the statuses of some British species are very different from what we might have anticipated. If you can afford a luxury item, then its will worth having, but is not essential.

Alan Stubbs

Hoverflies of Somerset

Ted and Dave Levy are collecting records for their latest venture which will follow similar lines to their earlier book on the hoverflies of Dorset. Any data (which ought to go to the national scheme too) to Ted & Dave Levy, 9 Chilton Grove, Yeovil, Somerset BA21 4NS.

NEWS FROM THE SCHEMES

Cranefly Recording Scheme

Richard Smith has started a PhD project on upland cranefly ecology in relation to food resources for certain birds that breed at high altitudes. He has obtained females of the long-winged form of *Tipula gimmerthali*, a species previously

known in Britain only in the typical brachypterous form. Jon Cole has found the second British specimen of *Dicranomyia frontalis* at a site south of Huntingdon. Some very useful batches of material have been received, including a giant fun pack from Andrew Godfrey that had some remarkable records, including *Ormosia aciculata* from south London (I have taken this species only once).

What with doing the Hoverfly Supplement and revamping larger Brachycera keys, plus a deluge of conservation matters, not to mention Forum secretaryship, the Tipuline keys are behind schedule. However, the workshops on craneflies booked for late November (Dinton Pastures) and March 1996 (Preston Montford) are something to look forward to, so keep collecting.

Alan Stubbs

Fungus Gnat Recording Scheme

The British list has stabilised again over the past two years. The one 1993 addition of *Clastbasis alternans* from Norfolk was recorded again in 1994 by Martin Drake from a site in Gloucestershire (Coombe Hill Canal SSSI, 21.v.1994). What factors have led to such a distinctive species turning up at widely separated sites in successive years but never before found in Britain are as yet a mystery.

The 1994 autumn field meeting produced the only additional species for 1994, tentatively identified as *Exechia cornuta* (Lundström), from Loggerheads County Park, but examination of comparative material will be required for confirmation of its identity.

Two papers on additions to the British list were published in 1994: one on *Anatella*, adding four species, two of them previously recorded from Ireland in a 1987 publication (*Dipterists Digest*, (2) 1: 9-12) and one on *Rymosia*, adding five species, with a key to the 16 British species now known (*Ent. Gaz.*, 45: 199-220). I also reported a nomenclatural change in *Macrocera* in a paper on the fungus gnats of Israel, published in the *Israel Journal of Entomology*, 28: 1-100. Here I restored the use of the name *pusilla* Meigen, rather than *nana* Macquart, which I introduced to the British list in a paper on the genus in *Dipterists Digest*, 3: 27-31.

P J Chandler

Dixidae Recording Scheme

Two more visits to Wicken Fen have produced *Dixella serotina* for me at last, thanks to site details received by Ivan Perry - and I was able to add *Dixa nebulosa* to the list for the Fen. However, I still haven't studied the living eggs of *D. serotina*, but Wicken *D. autumnalis* did produce typical, neatly compact clutches; the females of an isolated pair laid two clutches several days apart, the second being only a few eggs smaller than the first. The Rye new-to-Britain, *Dixella graeca*, performed so well in autumn 1994 that I was able to set up ten such Derby-and-Joan cultures and discovered that a female could lay six times, producing successively fewer, comparatively loosely associated eggs each time. Such isolates demonstrate less of the Mediterranean excitability which characterises larger groups - flitting about, "semaphore" with the wings, and frequent mating. A slight agitation of the container, however, often results in almost immediate mating, a stimulus which must often occur naturally from the activities of water birds or other animals or even light breezes. The adults in culture make good use of the jam that is provided on vertical paper strips, lowering their heads and sucking for many minutes at a time.

Ivan has again turned up trumps, with specimens from other areas, and Jon Cole, who says that he is no longer finding so many Dixidae, has provided two sets of records - completely filled out! Joy of joys!

There are fifteen species of Dixidae known in Britain! Twice recently the number has been misquoted: 1) With the lists of BENHS specimens and updated lists of British species enclosed with the Bulletin in 1993, the number of British Dixidae appeared as 16. Peter Chandler told me that this number was derived from the Palaearctic Catalogue, and included *Dixella laeta*. Henry Disney, in his key in 1975, and Wesley Nowell (Dixidae authority in California), in a 5-page history of the taxonomy of *D. laeta* which he sent to me in 1994, have both made it clear that this species has not been correctly identified in Britain. 2) In the previous "Guide to Biological Recording in Scotland" published by BRISC

(Biological Recording in Scotland Campaign) British Dixidae were cited as 13 species - the correct number up to 1974, when Henry Disney added *Dicella attica*! The forthcoming edition of the Guide, happily, should cite the right number - 15!

E Kathleen Goldie-Smith

Hoverfly Recording Scheme

The next Hoverfly Newsletter will appear in August this year. David Iliff's deadline for articles is 1st June.

Stuart Ball and Roger Morris now have 246,000 records on RECORDER. There are about another 40,000 records on other hoverfly recorders' computers still to be added. As both organisers have moved house or are about to do so, they have not been able to achieve as much as they had hoped this winter. Please keep the records coming.

A second supplement to *British Hoverflies* has been submitted to BENHS publications committee. It has been decided to amalgamate this with the 1986 Appendix which should not take long to do. The new supplement will be substantial and include all species added since 1983, completely new keys to *Platycheirus* and *Sphaerophoria*, and a key to female *Neocnemodon*. Also, there are several hundred more references. The hope of having this in print for the 1995 field season has not been realised but with luck it will be ready by November.

Finally, *Brachyopa insensilis* could be really quite widespread. Do look for it on sap runs on horse chestnut trees in May this year, or June in districts with late springs.

Roger Morris & Stuart Ball

Larger Brachycera Recording Scheme

The Larger Brachycera book being prepared by Alan Stubbs and Martin Drake needs a colour photo frontice. Alan suggests the eyes of horseflies (especially *Chrysops* or *Haematopota*), or a fly caught doing something other than loafing. Indeed, a second plate with a selection of eye pictures would be impressive. If you have a photo that may be suitable, could you let Alan know. The book is now likely to go to press next winter, hopefully being out in time for the 1996 season. Test keys have been circulated to those registered with the scheme, so please try them out and report any remaining snags or poorly phrased couplets - the sooner the better since it is no good re-vamping the whole lot at the last minute in the autumn.

Martin Drake

Tephritid Recording Scheme

Since my last note I have moved into the twentieth century and bought a PC (a Gateway 2000 4DX4 - 100P, to be precise) and a copy of RECORDER 3.2 meaning that the Recording Scheme data can now be easily assimilated and sent to individuals on request. I still intend to submit data to BRC but the mapping facility on RECORDER will enable me to keep abreast of distribution without the need for laboriously hand-plotting maps. The main task ahead will be to re-type all existing records onto the database, although this should not, hopefully, be as time consuming as my previous procedure.

Recent contributions have included lists from Jersey and Norfolk by Andrew Godfrey and Ken Durrant respectively plus general updates from Keith Alexander, Andrew Halstead, Roger Morris and Jon Cole. Andrew has recently been busy on Salisbury Plain where he has found *Chaetorellia loricata*, *Terellia vectensis* and *Urophora spoliata* to be widespread. Jon Cole found *Acanthophilus helianthi* on his garage window and presumes that it must have emerged from some seed heads of *Centaurea montana* in a waste bag. Just to show that you don't have to roam around the country to find goodies, Jon also reported a pair of *Ceratitidis capitata* from his kitchen on 7th January this year - Spanish clementines being the likely source.

I am very conscious of the time and effort put in by contributors, especially those who painstakingly write out their records longhand. I have come up with a makeshift 'card' which might help recorders as well as myself and this is

circulated to those registered with the scheme. The main problem is that this puts the burden of photocopying onto the recorder. Please use it if you wish and if you are opposed to it on principal let me know.

The phenological data acquired to date is in several cases more interesting than the distribution data and when all data is finally transferred to my PC I will be in a position to plot histograms in weekly, fortnightly or monthly intervals. It would thus help if recorders could state whether their record is based on anything other than an adult e.g. a leaf mine for *Acidia cognata* or *Euleia heraclei* or a gall for *Urophora cardui*. A gall of the latter seen on 1st January is nothing special but an adult seen on 1st September is different.

Laurence Clemons

RSPB REGIONAL INVERTEBRATE RECORDING COORDINATOR

Matthew Shardlow has recently been appointed to this newly created voluntary position for RSPB's Eastern region. His duties include: promoting an increase in the quantity and quality of invertebrate recording and monitoring on RSPB reserves; incorporating invertebrate conservation into management plans; and investigating invertebrate abundance on reserves (for bird food). If anyone has collected on RSPB reserves, your data now has a purpose. This goes beyond the recording schemes. RSPB would welcome recording on their reserve (as long as it does not interfere with the birds or RSPB members). Contact Matthew at RSPB, Stalham House, 65 Thorpe Road, Norwich, Norfolk, NR1 1UD.

TARGET SPECIES ACTION PLANS

The Rio conference, held in June 1992, resulted in over 150 countries signing the Convention on Biological Diversity. The intention is to maintain biodiversity and prevent extinction of species. There are related issues such as Sustainability, meaning development and agriculture policies must sustain biodiversity, among other things.

In January 1994, the British government published its report *Biodiversity: the UK Action Plan*. Anticipating that government would be weak on new commitments, and in particular would not produce a clear and sufficient statement of measurable targets, the Non-governmental Organisations (NGOs) produced their own report with targets for species and habitats, including a review of the broader countryside policy issues that inter-relate. The NGO report was titled *Biodiversity Challenge; an agenda for conservation in the UK*, published in January 1994 ahead of the government report, and a much more comprehensive second edition (285 pages) was published in January 1995 (available from RSPB, Sandy).

Meanwhile, the government has set up a working party on biodiversity which seems to be accepting much of the Biodiversity Challenge report as a working basis for targets. The Biodiversity Challenge team was invited to draw up a list of 100 priority taxa, which was done at short notice in collaboration with the conservation agencies. The list includes 30 invertebrates of which three are flies (on the list as a whole, DoE has made some irrelevant substitutions on the basis of international listings or conventions, etc.). Action plans have now been prepared, including three for flies:

Callicera spinolae. A saproxylic hoverfly seemingly on the verge of extinction.

Chrysotoxum octomaculatum. A heathland hoverfly whose ecology and management needs are unknown, but the relationship to host ants is likely to be crucial. Again, this species is seemingly at risk of extinction.

Asilus crabroniformis. An enigmatic robber fly, with very few permanent populations, that is declining and at risk of metapopulations collapsing. Livestock management and problems of ivermectin (an antiparasite medication that sterilises dung) disrupting populations of its larval host, dung beetles, need investigating.

We have to see how the government responds to the action plans, particularly whether its commitment extends to providing resources. Another 200 taxa are due for selection by this autumn as a second wave within a three year period. Hopefully, at least 60 invertebrates can be included. The criteria for selecting species comprise two official ones (the first two below) and seven which I have been advocating.

- UK populations internationally significant.
- Greater than 50% decline since 1970.
- Significant action needed (ie. not just a few days survey, or easy-to-effect action).

- Decent chance of achieving something worth while (ie no point in listing if it only puts a label to action that would have been taken anyway).
- Highlights an invertebrate conservation issue (eg saproxylic faunas - *Callicera*; declining dung faunas - *Asilus*; subtle management factors resulting from multi-species dependence - *Chrysotoxum* on ants).
- The action required can be specified (woolly generalities about ecologically vague or possibly extinct species are not helpful).
- Useful public profile species (small, black and boring are not a good start).
- Taxonomic spread across invertebrates.
- Availability of someone capable of doing the work required.

There are two glaring uncertainties. Firstly, the easy way out of highlighting a few species must not cloud the real battle for better safeguard and policies for habitats. Secondly, there is apprehension that English Nature's Species Recovery Programme may get usurped and replaced if the government looks to redeploy resources rather than provide new funds.

If you have any data or observations on the three selected species which is not with the recording scheme organisers, please let us have your information. Good, permanent populations for study are especially needed, so up-to-date advice will be very welcome. As regards the second round of selection of species, I guess we could all come up with a long list of favourites. Red Data Book, rapidly declining or, even better, internationally rare and declining are statuses that help to focus on potential candidates. If you happen to have some really good candidate species, then by all means say - Stuart Ball, Martin Drake and myself will be mulling over the possibilities for Diptera.

Alan Stubbs
Biodiversity Challenge Team

EXPERTS AND WANTED SPECIMENS

Dixidae Kathleen Goldie-Smith (apologies for having left you off before!)

MALAISE TRAP MATERIAL ON OFFER

Free samples to a good home:

Winnall Moors SSSI, Hants. Traps run in 1994. NO hoverflies, stratiomyids, lacewings, aculeates or sawflies which have all been extracted. A rich calcareous fen, scrub and wet grassland site next to the River Itchen. Site of the rare hybotid *Syneches muscarius* and several other nationally scarce flies. Contact Jess Pain, Hampshire Wildlife Trust, 7 Nations Hill, Kingsworthy, Winchester, Hants SO23 7QY.

Much to my embarrassment, I unearthed the following collection of tubes sent to me by Bob George many year ago and have not done anything with them. They seem to contain mainly calyprates, acalyprates and "lesser" Brachycera (ie no popular goodies). Write to Martin Drake.

Ross-on-Wye, Herefordshire, grid reference 32/546221; 29 iv - 6 v 1981 and 7 -13 v 1981. Four 3" x 1" tubes-full.

Foxber Paisley, Renfrew. NS 4863. 5 - 11 vii 1982. A ½-full 3" x 1" tube.

Holt Hall, Norfolk. TQ 0890; 29 v - 5 vi 1981. One ½-full and one ¾-full 3" x 1" tube, the latter dried out and probably useless.

Llangorse, Brecon. SO 143275; 8 - 11 vi 1981. One 3" x 1" tube.

Monks Wood NNR, Cambridgeshire (deciduous woodland), TL203 796; 23 - 30 vii 1981. A half-full 1½" x ½" tube.

Duxford, Cambridgeshire, TL 471458. A nearly full 2½" x 2 ½" tureen containing what appears to be a calyprate soup. (Waiter! There's a vomitoria in my soup.....).

SCOTTISH ISLANDS DATA WANTED

Peter Skidmore will be producing another publication on the Diptera of Scottish Western Isles. The first of these was "A special collection of papers on the Outer Hebrides and Rum.", *Dipterists Digest* No. 14 (1994). Peter's next set of papers will cover remaining islands but, as before, will not include The Orkneys, Fair Isle or Shetlands. Any raw data, in whatever form (eg photocopy of note book), and references to work you have already published, are welcome. All sources will be acknowledged. Send your data to Peter at 169 Carr House Road, Doncaster, S Yorks, DN4 5DP.

AND NOW.....GOING FAST SLOWLY

We all know the feeling. Here we are, the ultimate product of millions of years of evolution, the top of the evolutionary tree, capable of landing man on the moon. Yet a mere squit of a fly is able to elude our net, which must by comparison look the size of a fence around a tennis court. Even our cowboy quick-on-the-draw speed is often too slow to swat a horsefly, let alone one of those clever-cuts calypterates. And how do flies dart through vegetation in flight without coming a cropper?

One of the most extraordinary feats must be that of a North American *Hybomitra* horsefly which performs a half loop and roll to reverse direction in order to intercept a female in flight, the Immerman turn (a manoeuvre named after a German ace fighter pilot). The male can detect and catch a female travelling at 110 km/h within a distance of 3 metres; that's motorway speed! (Smith & Butler, *J. Insect Physiol.*, 37: 287-296).

It is argued that the reason for flies being so quick is that their brains operate faster and hence see in slow-motion relative to *Homo sapiens* (Allen, *The Field*, 1994: 48-49). We cannot partition events of more than 18-20 per second (hence cine film has to be more than 20 frames per second to achieve Flicker Fusion Frequency). Some insects can distinguish 70-310 events per second (possibly more?). Thus a housefly with a maximum speed of 4-6 mph really regards our efforts as pathetically slow.

So should the human species aim to genetically engineer a super-race of fast flicker fusion frequency dipterists? The trouble is that anyone who could see in slow-motion would be in demand for irrelevant purposes so, of course, deviant genes that encourage a love of cricket would have to be eliminated at a very early stage. The penalty, it seems, is that an ultra fast brain requires enormous amounts of energy, and eating yet more Mars Bars is unlikely to resolve that problem. I'm afraid we shall just have to make the best of our God-given capacities, and accept that we are all "butter nets" at times.

Alan Stubbs

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Larger Brachycera Recording Scheme

Newsletter 12

Spring 1995



Dipterists
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Larger Brachycera test keys

Keys are circulated with this March 1995 Newsletter. Most of them were given some dusting down at the larger Brachycera workshop of 10-12 March 1995 and the comments received have been used to modify the keys where necessary (mainly hand alterations to meet the deadline for the Bulletin). The keys to some small families are new and are included here without figures which remain to be drawn.

The therevid key has been substantially re-arranged, in part to accommodate newish generic arrangements. The earlier test key to *Thereva* laid much emphasis on leg bristle arrangement, which caused much anguish, so this revised version largely avoids those characters. Those at the workshop preferred the revised version, but gave them only limited testing.

The tabanid key is hopefully much improved. However, there are still problem specimens and we seemingly have to accept that this will always be the case. There has to be a balance between user-friendly keys that resolve say 95% of the difficult complex within *Hybomitra* and prohibitively complex keys. Base records only on specimens that run confidently to species, and refer any difficult ones to Alan.

Please help give these keys a thorough testing. Once the book is in print, you will have to live with the keys and so will many other people. Now is the time to iron out remaining quirks and to come up with simpler solutions and simpler ways of expressing characters. You still lack the text and plates that will eventually supplement the keys in the book.

Note that about 12 species have been added since Oldroyd's Royal Entomological Society Handbook (1969), at an average of about one a year over the last ten years. The keys include some potential new species and these are given in italics. Post-1969 species are:

Stratiomyids	<i>Chorisops nagatomi</i>	Rozkošný revision
	<i>Odontomyia hydoleon</i>	confirmed GB by Adrian Fowles
	<i>Odontomyia</i> sp A, larva	Walberswick NNR, coll. Andrew Foster & Deborah Procter, det. Alan Stubbs [survey for adult needed]. ?= <i>microleon</i> .
	<i>Odontomyia</i> sp B, larva	Whitehills, Aberdeenshire, Alan Stubbs [survey for adult

		needed].
	<i>Oxycera leonina</i>	Norfolk, Alan Stubbs
	<i>O. varipes</i>	Devon, Alan Stubbs
Xylophagidae	<i>Xylophagus</i> sp A, larva	Gloucestershire, Dave Clements
Rhagionidae	<i>Chrysopilus erythrophthalmus</i>	Yorkshire, Jon Cole
Tabanidae	<i>Haematopota subcylindrica</i> (?)	Sussex Levels, Peter Hodge (Alan is seeking NW European specimens for comparison)
	<i>Haematopota</i> sp A	Norfolk, Alan Stubbs
	<i>Hybomitra expollicata</i>	Lyneborg
	<i>Hybomitra solstitialis</i>	In the Handbook, omitted from earlier test key since doubtful status, now in new key as distinct.
	<i>Tabanus spodopterus</i>	?GB. Specimens in NHM, recognised by John Chainey. ?Cornwall/Pyrenees label confusion.
Therevidae	<i>Thereva cinifera</i>	Merthyr Mawr, Glamorgan, Alan Stubbs et al.

Alan Stubbs

Distribution maps in the Larger Brachyera Book

We plan for the larger Brachyera book to contain distribution maps for about a third of the species for Britain only, illustrating particularly interesting distribution patterns as well as those of a few common species. BRC have agreed that I can have the data used to produce the provisional atlas. To make the maps in the book more than a reprint of the rather sparse maps in the atlas, I will add the large number of records I have received and collated since the atlas was produced. Any records not yet sent in would also be valuable. Rather than input vast amounts of data in the relatively short time available (until winter this year), all that I need for the book is the 10km square and date (or just pre- and post-December 1969). This can be provided in any paper form. These abbreviated records will not count for the long-term database and I would like fuller details some time later. I will persuade Stuart Ball to show me how to copy records already in other people's RECORDER for those equipped with this database (not a straight-forward task).

Martin Drake

Preston Montford Brachycera & Conopid workshop - report.

This weekend workshop (10-12 March) was attended by 24 "students" and five tutors. The field centre's facilities are excellent for this type of course, stretching to a well-supported bar next to the lab. We split into two groups, beginners and advanced. Stuart Ball gave us a tour through the families of flies using his excellent photographic slides. Although intended as an introduction, it was a useful refresher course for some of us. The formal periods were usefully spent testing Alan's Brachycera and Dave Clement's conopid keys. A brief larval hunt along the river bank produced *Beris* (probably *vallata*) and *Chloromyia* in a set-aside field. Some of the *Chloromyia* were at the bases of dead spear thistle stems, but the other larvae were merely among the stem bases in small tussocks of Yorkshire Fog grass (*Holcus lanatus*).

Martin Drake

Chloromyia swarming

Alan Stubbs reported seeing *Chloromyia formosa* males "swarming" in his garden, flying with its body at 45° to the horizontal. Alan wonders whether this is the general angle of dangle for hovering stratiomyids or characteristic of just *Chloromyia*.

Martin Drake & Alan Stubbs

Further notes on the occurrence of *Stratiomys singularior* at inland localities

Recent Newsletters have contained notes on the occurrence of *Stratiomys singularior* at inland localities. Martin Drake mentions its occurrence, together with other coastal flora and fauna, at saline areas on Thorne Moors and the Cheshire Brine pits, whereas Ian Morgan mentions the species occurring at a settling lagoon at a colliery spoil tip at Cynheidre, once again together with coastal flora.

On 17 July 1992, at the invitation of Brian Eversham, I paid a visit to Thorne Moors. A disused colliery borders the moors near Moorends which is several kilometres from the North Sea. We failed to find any adults of *S. singularior* but did note one of the large leech-like larvae swimming in clear open water near the colliery. It is thought (Brian Eversham, pers. comm.) that the coastal species occurring at Thorne Moors do so naturally, and were present at the site prior to the 1860s when warping began (that is, letting the silt-rich brackish estuary waters flood the land to improve its productivity), and prior to 1919 since when saline water has been pumped up from the mine. Saline water is still pumped and helps to maintain the salinity of part of the site. Perhaps the water of the Cynheidre settling lagoon is saline due to pumping out underground water?

One must conclude that *S. singularior* will readily colonise inland sites if they are, or become, saline.

References:

Drake, C. M., 1993. Coastal and brackish-water species inland. *Larger Brachycera Recording Scheme Newsletter*, No 10 p 9.

Morgan, I. K., 1994. Notes on *Stratiomys singularior* and *Haematopota grandis*. *Larger Brachycera Recording Scheme Newsletter*, No 11 p 1.

Andrew Grayson

***Asilus crabroniformis* species action plan**

Biodiversity Challenge, the non-governmental group that is pressing for action plans for species and habitats in response to the Government's signing-up to the Biodiversity Convention, has published the second edition of its publication by the same name. One of the species that is included in the list for which action is called for is *Asilus crabroniformis*. Although not classified as rare in the Red Data Book, it has undergone a rapid decline and is now found in rather few localities. A species action plan has been prepared. Whether funds are forthcoming to undertake any action will depend on the government's generosity.

The Bulletin explains the choice of this species ("Target species action plans"). There are few sites with stable populations where studies may be made on the ecology of the robberfly and its parasitoid relationships to *Geotrupes* (and possible other dung beetles). We urgently need up-to-date advice on the occurrence of such populations. Also, we need to understand why it dies out locally, so any observations on population crashes (or indeed expansions) coinciding with changes in grazing stock or stock management, will be very welcome. The species seems to appear from nowhere for a year or two, suggesting that metapopulations are involved, perhaps based on some core sites but entailing a pattern of colonisation and extinction. It would be nice to get something off the ground before the flight period begins in late July. Among the issues that will be addressed are: How far can this species travel? How big and dispersed is a viable metapopulation? At what point does increasing loss of semi-natural grassland or heath reach the critical threshold of site size and isolation for a metapopulation to collapse?

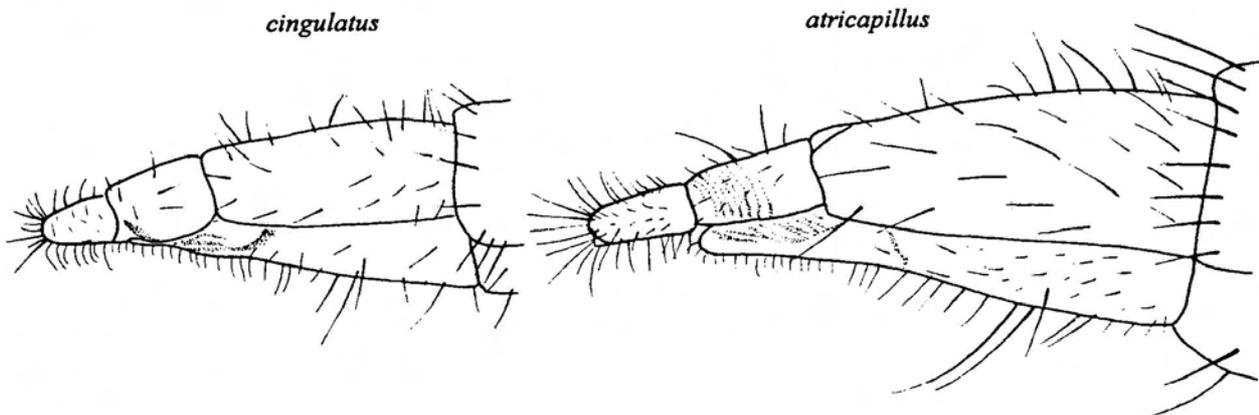
Alan Stubbs

Separation of female *Machimus atricapillus* and *M. cingulatus*

I have been illustrating the genitalia of both sexes of British asilids for the larger Brachycera book. I found that the females of these two most frequently found *Machimus* can be separated reliably using characters on the ovipositor. I

don't pretend that these characters are especially easy to judge but they are more constant than some characters previously used. The colour pattern of the abdomen is easy to see with the naked eye and is reliable if you know what you are looking for, but it cannot be illustrated.

The two important differences are that the last segment of the ovipositor is more elongate in *atricapillus* but relatively shorter in *cingulatus*, and the single pair of long ventral hairs on the last long segment of *atricapillus* is conspicuous, about three times as long as other ventral hairs, whereas there are two or three pairs of relatively shorter and less obvious hairs in *cingulatus*.



German asilid worker

Mike Edwards passed me a letter from Fritz Geller-Grimm who is engaged in a diploma on the ecology of asilids. He wants to work on a key to German species, larvae in general, and a revision of one genus, perhaps *Stenopogon*. He asked Mike if he would be interested in exchanging specimens, and presumably anyone else is included by inference. In view of our poor fauna, there are probably not many species that he cannot get hold of more easily himself (*Machimus coweni* and *Rhadiurgus* may be exceptions). However, if anyone is interested and thinks they may be able to help him (don't forget he's trying to get a qualification), perhaps they could contact him at Speilmanstrasse 20, 65934 Frankfurt/M, Germany. He has already sent me an impressive list of literature relating to the British fauna.

Martin Drake

Yet more on *Thereva* larvae

Andy Godfrey has reared *Acrosathe annulata* (the dune species) from larvae collected last May on the summer field meeting from Hartlebury Common, Worcestershire. In the last Newsletter, I reported having reared *Thereva bipunctata* and *T. nobilitata* from larvae collected from this site.

I recently collected two larvae, presumably of *T. nobilitata*, from a most unexpected location. I was engaged in dismembering a Russian Vine (*Polygonum baldschuanicum* in my gardening book) that had outstayed its welcome by invading the inside of my garden shed. Covering the roof was two barrow-fulls of debris forming a layer of leaf litter about 2cm thick under the thatch of stems. This supported numerous *Dilophus* and *Tipula* larvae, springtails, staphylinids and sundry other beasts. Among all this I found two penultimate instar therevid larvae (it's not easy, perched on a shed roof, explaining the principles of therevid squiffing to an amused neighbour). I am rearing them on a diet of nematoceran larvae which one, at least, polished off in a very short time. The litter was damp, as may be expected this winter, but the situation when the female laid her eggs may well have been more akin to the dry soil where we are now finding therevid larvae. I also found a larva of *Pachygaster leachii* here.

Martin Drake

Literature

Palmer, C., 1994. A note on the rearing of *Solva maculata* (Meigen) (Xylomyiidae). *Dipterists Digest*, **1**, 85-86.

Horseflies of Yorkshire. See the advert in the Bulletin for this new book by Andrew Grayson.

Interesting records

Oxycera terminata. Buckingham Thick Copse NNR, Northamptonshire; 42/7043. Tony Warne has been running Malaise traps here for a few years. 4♀, 1♂, 29 June 1993, from two traps, and a ♀ in 1989, no date.

Haematopota subcylindrica (?). Peter Hodge has single females from two sites on the Sussex coastal levels. One of these has been examined by Alan Stubbs and John Chainey. We could do with NW European material for comparison but it is reasonably certain that the identification is correct. A male is needed to complete the key to the genus. Keep all those clegs from saltmarshes and coastal levels!

Haematopota sp A. Foulden Common, Norfolk, 1 August 1985, 1♀, Alan Stubbs. The first antennal segment has a sub-apical notch, as in *pluvialis*, but the fly looks very different to the common species (see key).

Hybomitra ciuriae. Magor Marsh, Gwent. The first western record.

Hybomitra micans. Pembrey Forest and another south Wales site.

Dioctria cothurnata. Lyndhurst, Hants (New Forest). Mark Pavett. This species was not seen for a number of years, then it turned up in Dorset in the late 1980s, in Scotland in the early 1990s (Mike & Liz Howe) and again last year in the New Forest. We do not know whether this is a genuine increase in abundance or due to identification being better using Alan's keys rather than Oldroyd's.

The last three are but among several very interesting specimens that were floating about at Preston Montford. I shall be pleased to have full details of these and other records.

Laphria marginata. Buckingham Thick Copse NNR, Northamptonshire; 42/7043. Tony Warne's Malaise traps again. 1♀, 26 July 1991; 2♀, 4♂, 29 June 1992; 1♀ 6 August 1992. Getting towards the edge of its range.

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Recording cards are available from :

Biological Records Centre
Institute of Terrestrial Ecology
Monks Wood Experimental Station
Abbots Ripton
Huntingdon
Cambridgeshire PE17 2LS