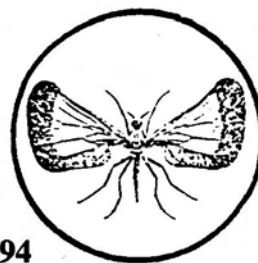


# DIPTERA



RECORDING SCHEMES BULLETIN NO 37, FEBRUARY 1994

## FORTHCOMING MEETINGS

### Diptera Identification Workshop March 1994

This meeting has received considerable interest and is now fully booked.

### Main Summer Meeting - Preston Montford, Shropshire, 20-27 May 1994

Twenty places at Preston Montford Field Centre have been booked and filled. Anyone still interested in attending should contact Roger Morris (241 Commonsides East, Mitcham, Surrey) as soon as possible, as it may be possible to arrange additional accommodation. A deposit of £40.00 is required.

### Gordano Valley and surroundings, Avon - summer 1994

Ray Barnett will be organising a meeting, probably for a weekend, at this wetland NNR. The site contains ditch systems, wet meadows, fen and wet woodland on peat. If this site does not hold enough interest, there are plenty of other habitats in the immediate vicinity, such as the limestone Mendips and the dunes at Berrow. If you are interested, contact Ray Barnett, Assistant Curator, Natural History Section Bristol Museum and Art Gallery, Queen's Road, Bristol BS8 1RL, tel 0272 223598.

### British Entomological & Natural History Society meetings:

**Thorndean Park, 22 May.** A country park with ancient oak pollards, secondary woodland, scrub and marshy areas. Recent records suggest that it should be productive for flies. Meet in the car park off the A128 TQ6389. Contact Roger Payne, tel: 0702 330214 (day) or 0702 331817 (evening).

**Dinton Pastures, Reading, 4 and 18 June.** Meet at 10.30. Contact Andrew Halstead, tel: 0486 789581 (evening) or Peter Chandler, tel: 0628 23377 (day).

**Powerstock Common, Dorset, 11 June.** Ancient woodland with large areas of heathy grassland with seepages. Meet at SY547973 at 10.30. The reserve car park is reached by the A35 about 8 miles west of Dorchester, turn north from A35 towards West Compton then turn left and stay on minor road for 3 miles. Car park is on the left just before a disused railway bridge. Contact Mick Parker, tel: 0305 788380.

**RAF Caewent, June 25.** Contact Mike Wilson, Cardiff Museum tel: 0222 397951.

**Croxton Park, Leicestershire, 2 July.** A parkland SSSI with woodland, grassland and marshy areas. Meet at 10.30 at SK825275. Access by the entrance on A607 1km SW of Croxton Kerrial.

**Dartmoor, 3 September.** A residential visit in search of new localities for the rare hoverfly *Eristalis cryptarum*. No venue yet so contact Roger Morris (see Preston Montford meeting).

**Lancashire and Cheshire Entomological Society annual exhibition and conversazione, 1.00-5.00, 12 March.** Woolston Leisure Centre, Warrington, Cheshire, off the Manchester Road (A57) about 1 mile from the roundabout at the head of junction 21 on the M6 when heading towards Warrington; turn into Laburnum Avenue then right into Hall Road for 200m (SJ645894). Contact Steve McWilliam, 4 Priory Close, Halton, Runcorn, Cheshire, WA7 2BN, tel: 0928 573697.

### **Third International Congress of Dipterology**

The 3rd ICD is to be held at Guelph, Ontario, Canada, from August 15-19, 1994. There are 16 subject-based sections and 21 taxonomic section. Those paying the full registration fee can present papers or posters. Abstracts will be published but no full symposium proceedings. One or more one-day field trips will be arranged after the formal proceedings and will cost extra. The registration fee is CAN \$200 before March 31 1994 and CAN \$275 after this date. Accompanying persons (who attend only the social and not the scientific functions) pay a registration fee of CAN \$100, and a programme of tours is arranged for them (presumably costing more). Accommodation at the university costs CAN \$70 per person per day for a single room and CAN \$62.50 per person per day for double rooms; this includes all meals, taxes and parking (!). Local hotels that are recommended cost much the same but the last three items are not included.

Information may be obtained from Dr Steve Marshall, Dept. Environmental Biology, University of Guelph, Guelph, Ontario, Canada, N1G 2W1. Alternatively, David Henshaw (address under Dipterist's Supper above) and Martin Drake can answer any queries you may have before you apply. Several people from GB hope to go, including David Henshaw, Roy Crossley, Alan Stubbs, Martin Drake, Stuart Ball and Roger Morris.

### **5th European Congress of Entomology: 29 August - 2 September 1994, University of York, Department of Biology**

Registration for attendance at the forthcoming Congress is requested by 28 February, and submission of Abstracts by the same date. If anyone is considering attending but has done nothing about it so far, please contact Roy Crossley as soon as possible for the appropriate Registration and Booking Forms, enclosing a 210mm x 150 mm (approx. 8½" x 6") s.a.e.

Roy Crossley, 1 The Cloisters, Wilberfoss, York, YO4 5RF.

### **DIPTERIST'S DAY & SUPPER, SATURDAY 12 NOVEMBER 1994**

The annual meeting will be held as usual at the Natural History Museum. In a bid to keep the cost down, we have arranged to use the demonstration room for the morning as well as for the afternoon, and we will pay for the hire of this room but will not be charged entry to the museum. This should reduce the cost about half the normal entry fee.

Advance notice is given of the next Dipterist's Supper which will be held at the **Rooms of the Royal Entomological Society** after the annual meeting at the Natural History Museum. To give me increased confidence that the event will be a sell-out, I would like to know well in advance who intends to attend. The cost will be £13.50, a small increase on last year's price which is offset by the lower cost of the annual meeting (see above). I will gladly accept your cheque; enclose a SAE for your ticket.

David Henshaw, 34 Rounton Road, Waltham Abbey, Essex EN9 3AR.

### **FUTURE OF THE DIPTERIST RECORDING SCHEMES**

At last November's annual meeting in London, we discussed the issue of how Diptera recorders will organise themselves in a world of diminishing support from government sources. At the moment, the statutory nature conservation agencies contribute considerably to producing this bulletin and running the main summer field meetings and indoor meeting at the Natural History Museum. This support is likely to decline, so we are considering how keep up two decades of momentum. At the November meeting, the Central Panel members agreed that a working group consisting of Alan Stubbs, Martin Drake, Stuart Ball and Paul Harding should prepare a consultation document which will be put to the Central Panel for their consideration. The results of this will be reported in the next bulletin. If the Central Panel decide that we should go ahead with one of the options given below, an AGM will be held at the next annual meeting in London to set up a committee that will be responsible for writing a constitution.

The options being considered are to set up an independent dipterists' society, or to form a dipterists' group that is affiliated to either the British Entomological & Natural History Society, Amateur Entomologist's Society or the Royal Entomological Society. Several levels of affiliation are being considered.

The purposes and objectives of the society or affiliated group are:

- Fostering the study of Diptera and forming cross-linkage with other disciplines where there is a relation with other animals and plants.
- Promoting recording of all aspects of the natural history of flies, including distribution mapping.
- Catering in particular for the amateur whilst maintaining symbiosis with professionals in museums, institutes and universities.
- Organising indoor meeting, workshops, field meetings and other relevant events.
- Disseminating news and information through newsletters and publications.
- Increasing our interest in Europe, including liaison and sharing objectives with other European dipterists, while recognising that the British Isles must remain the focus of attention.

## NEWS FROM THE SCHEMES

### Chironomid Study Group

The first Chironomid Study Group News was issued in October 1993. If you are interested in receiving it, contact Patrick Roper, South View, Sedlescombe, Battle, East Sussex TN33 0PE.

### Cranefly Recording Scheme

Now available from BRC, *Provisional atlas of the ptychopterid craneflies (Diptera: Ptychopteridae) of Britain and Ireland*, by Alan Stubbs. Maps and species accounts are given for the seven British species. There is a key with notes to help separate females of difficult groups, and sketches and notes to help identify the remaining European species.

A cranefly new to science has now been described, the type locality being near Basingstoke, Hants: *Gonomyia (Gonomyia) hippocampi* Stubbs & Gieger, 1993. The species name refers to the aedeagus being rather like a sea-horse.

### Dixidae Recording Scheme

Good news at last: *Dixella graeca* reappeared in numbers at its Rye site and "peaked" in October; in the middle of December, with the pond at 7°C, it is still to be found, as mostly very small larvae, strengthening my theory that some Dixidae, at least, pass the winter as early larval stages. Earlier in the year, I found one larva of *D. autumnalis* and subsequently began finding an occasional larvae of *D. amphibia*; now, in late autumn, *Dixa nubilipennis* can sometimes be found, as larva or adult, near the inlet, a pipe which spills water into the upper end of the pond, creating a small current favourable to species of *Dixa*. A list of these four species for this pond would give a very unbalanced picture of it; monitoring it since May 1988, weekly or fortnightly through some periods, sporadically at other times, has shown *Dixella graeca* to be almost in monoculture much of the year; a crack in the lining of the pond, later repaired, was probably the major cause of its apparent disappearance for a time.

The Annual Meeting was fruitful: 5 of the 7 adults from Wicken Fen, collected and mounted by Ivan Perry, turned out to be *Dixella serotina*, proving that this species is still there after all; the other two are *D. autumnalis*. Of the six adults collected by A Godfrey at Middle Harling Fen during the field week in July, 4

are *D. autumnalis* and 2 *D. serotina*. The NCC East Anglia Survey had shown *D. serotina* to be widespread, if not abundant, in the area. Why didn't I find any there last July?

Peter Chandler handed me a box of over 100 mounted adults for identification or checking, and also some in alcohol; collected fairly recently, the latter are in beautiful condition, and a joy to identify. Though I prefer the latter method of preservation, I am always pleased to receive dry specimens, Please keep them coming!

New Year's resolution: to make more use of my new sweep-net, for adult Dixidae, and be less strictly a larvologist in 1994.

Kathleen Goldie-Smith

### Larger Brachycera Recording Scheme

Andrew Grayson is preparing a booklet on the horseflies of Yorkshire. While investigating an unlikely species of *Tabanus*, Andrew realised that it was not a British genus. The specimen was exhibited at the annual meeting at the Natural History Museum in November under the tentative name of *Silvius*. John Chainey has now identified it as *Dasybasis oculata*, a species from eastern Australia! So we are confident that there is no need to add another genus to the British fauna after all. We still have to discover how it came to be mislabelled but we do not wish to embarrass the collector.

Martin Drake

### Hoverfly Recording Scheme

Since Dipterist's Day, some 6,000 new records have been received and entered onto the database. In addition, some 8,000 of the backlog of records have also been entered, leaving perhaps another 8,000 records in various non-standard formats to enter; these should be entered before next Dipterist's Day.

At the moment there are over 200,000 records on the database in Peterborough - this does not include Ken Watt's Scottish data. Despite the size of the dataset, there are some considerable gaps in coverage, especially Lincolnshire, the Welsh borders, north west England/south west Scotland, and the west coast of Scotland. Please bear this in mind if recording trips are planned.

We expect to be able to keep to the published timetable for the production of provisional maps. This should not prevent us from entering incoming data, and we would be most grateful for any outstanding contributions of records. Do please remember that we are keen to receive records of common species as well as the rarer ones.

*Platycheirus europaeus* should now be called *P. octomaculatus* (von Roser, 1840). [see Schmidt 1991, *Nachr. Bayer Entomol.* 40: 59-60; *Zool. Rec.*, 129, published Dec 1993.]

Stuart Ball & Roger Morris

### Fungus Gnat Recording Scheme

A key to *Rhynchosia* species, with five additions to the British list, is shortly to be published in Entomologist's Gazette. One further addition to the British list, bringing it to 523, has come to notice recently, i.e. *Clastobasis alternans* (Winn.) of which Ivan Perry collected a male at Wheatfen Broad, Norfolk, during the summer field meeting. This is a mainly yellow insect with dark bands on the abdomen and clear wings. The distinctive genitalia give the abdomen a clubbed appearance. The antennae are yellow with a black ring around each segment, a characteristic of the genus which is diverse in the tropics. *C. alternans* is the only European species, known from Finland to Italy through eastern and central Europe but not previously from western Europe.

Ignoring taxonomic splits of existing genera, this represents the first genus of fungus gnat new to the British list since Edwards added *Eudicrana* and *Manota* in 1941. It belongs to the Leiini and runs to them in the key

to tribes in the RES Handbook except that the tibial setulae are arranged in regular rows as in the Mycomini. Within the key to genera of Leiini, it runs to *Leia* as the weak vein Sc runs faintly to the costa or to couplet 3 if it is considered to end free. It is readily distinguished from the other genera on the characters mentioned above and by the anterior branch of the posterior fork being detached at the base as in some *Leia*.

Peter Chandler

### **Empid & Dolichopodid Study Group**

Roy Crossley has been contracted to edit and revise the unpublished data sheets on the Empidoidea written by Steven Falk on his review of rare and threatened flies of Great Britain. It is hoped that the work will be published this year.

## **PUBLICATIONS**

### **Diptera Digest**

Graham Rotheray's Colour Guide to Hoverfly Larvae is at the printers and should be available any day now. Graham has enough copy for the next issue but welcomes new articles, either short notes or longer articles, for later volumes.

Subscriptions/back issues/sponsorship: Derek Whiteley, 17 Rustlings Road, Sheffield S11 7AA (please do not send money to the Sheffield Museum, whatever you do!)

Editorial: Dr Graham Rotheray, Royal Museum of Scotland, Chambers Street, Edinburgh EH1 1JF.

### **Hoverfly book reprint**

The British Entomological and Natural History Society is pleased to announce that its very successful book *British hoverflies: an illustrated identification guide* by A. E. Stubbs and S. J. Falk is now available again after being out of print for two years. Since its original publication in 1983, this book has remained the definitive guide to the British hoverfly fauna and, with over 190 species being illustrated on the 12 spectacular colour plates, it is also one of the most attractive. A 16-page supplement was added in 1986. Hardback copies are available at £26 each (£18 for BENHS members) plus £2.80 postage & packing (£3.50 overseas), from the Sales Secretary, R. D. Hawkins, 30d Meadowcroft Close, Horley, Surrey RH6 9EL. The BENHS is a registered charity, number 213149.

### **The Hope Department, Oxford**

Copies of A. Z. Smith, *A history of the Hope Entomological Collections in the University Museum, Oxford, with lists of archives and collections* (1986), Oxford Univ. Mus. Publ. 2: xiii + 172 pp.) are now available at the reduced price of £10, plus £1.50 postage (£2.50 overseas). Write to: Dr G. C. McGavin, Hope Entomological Collections, University Museum, Parks Road, Oxford OX1 3PW.

### **Tachinids**

**Tachinid Flies, Diptera: Tachinidae** by Robert Belshaw (1993), *Handbooks for the identification of British Insects* 10, Part 4a(i). Royal Entomological Society of London. price £20 or £14 for Fellow and Members for the first copy (30% discount), plus £1.50 postage & packing per copy. Available from the RES, 41 Queen's Gate, London SW7 5HR, tel: 071 584 8361 (not from the Natural History Museum); make cheques payable to the Royal Entomological Society.

This volume differs greatly from van Emden's handbook published in 1954, reflecting the great advances that have been made since then in understanding tachinid taxonomy, biology and distribution. The keys are artificial and do not attempt to sequentially split subfamilies and tribes. Two thirds of the illustrations are placed next



to the couplets, making the keys far easier to follow than in previous Handbooks, and the remainder are at the back. These are clear and easily understood. The terms for characters are well illustrated and explained so there should be few problems in interpreting chaetotaxy. As well as an introduction to the biology of the whole family, about a third of the book is devoted to species' biologies (hosts, distribution, flight periods, habitat).

### **Studia Dipterologica**

I received the following details about this new journal. It played havoc with my spell checker.

The journal "Studia Dipterologica" will be issued in the beginning of 1994 for the first time. It is reserved for original papers in English or German language which deal with Diptera only. The main aim is to publish papers on taxonomy, systematics, ecology and faunistics of Diptera. But it is also open for all other topics like for instance studies on behaviour, zoogeography or ethology as far as they concern the Diptera.

The editors would like to accept the imagination of the authors for a fast publication of their papers. Therefore the journal "Studia Dipterologica" will be issued unsteadily. It means that every new journal will be issued, if the number of printed pages will be higher than 70. The authors had not to pay for printing their manuscripts. We send 50 separata of the paper to the authors address. Further informations on the demands on the manuscripts will be given in the first issue of the journal.

The first issue of the journal "Studia Dipterologica" will contain the following papers in either English or German with German resp. English summary.

K Rohlfien (Eberswalde): On the history of the dipterological collection of the German Entomological Institute Eberswalde. (in German)

M. Pollet (Gent): On the efficiency of different sampling methods for collecting Dolichopodidae. (in English).

A Stark (Halle): On the hunting behaviour and prey composition of flies of the genus *Platypalpus* (Empidoidea, Hybotidae). (in German).

R. Wagner (Schlitz): Description of new Psychodidae (Diptera) from the Russian Far East. (in English).

M. Buck (Ulm). Sphaeroceridae and Phoridae (Diptera) collected by emergence traps from various terrestrial habitats in southern Germany. (in English).

H. Reusch (Holdenstedt): New and remarkable Limoniidae for the German fauna. (in German)

It is edited by Dr A. Stark and F. Menzel, with R. Bellstedt, Dr M. Pollet, Dr H. Reusch and Dr H. Ulrich on the scientific advisory editorial board. If you would like to order the first issue, please write to Dr A. Stark, "Studia Dipterologica", Seebener Str.190, D-06114 Halle/Saale, Germany. It will cost 30 DM. "Informations to the mode of payment will be sent with the journal."

### **Opomyzid key**

A review of the British Opomyzidae (Diptera). Drake, C. M. 1993. *Br. J. Nat. Hist.*, 6, 159-176. Illustrated and includes a key to the 16 British species. There has been a flurry of new species described from the Palaearctic recently although mostly not written in English. Through the kindness of Jan Willem van Zuijlen at Leiden, I have a translation of a Russian paper by Miguel Carles-Tolra (1993, Three new species of Opomyzidae (Diptera) from Spain. *Ent. Obozr.*, 72 (2), 410-413) which included a *Geomyza tripunctata* look-alike which may be among our common species. I can supply interested people with a copy.

Martin Drake

## Handbooks for the Identification of British Insects

Here is an up-to-date list of what is available for Diptera. These may be bought direct from the Royal Entomological Society, 41 Queens' Gate, London, SW7 5HR, tel: 071 584 8361, NOT from the Natural History Museum which has relinquished its entitlement to sell the Handbooks. Postage and packing are extra and varies with the volume so you will have to enquire before buying.

vol 10 part 5g	Agromyzidae	9.25
vol 10 part 6	Scuttle Flies	6.00
vol 10 part 7	Keds, flat flies	4.00
vol 10 part 8	Scuttle flies	14.00
vol 10 part 14	Diptera larvae	30.00
vol 11 part 5	Checklist Diptera/Siphonaptera	5.50

## NEWS AND REQUESTS

### Any un-answered correspondence?

On the morning of 28 September, there was a raid on our local post van and all the incoming mail was stolen. I have already ascertained that there was at least one dipterist's letter to me which has gone missing and there may have been others. It is my usual custom to reply promptly to letter received and therefore if any colleagues wrote to me at that time and haven't yet had an acknowledgement will they please contact me again.

Roy Crossley, 1 The Cloister, Wilberfoss, York, YO4 5RF.

### Diptera Recording in Lancashire and Cheshire.

The Lancashire and Cheshire Entomological Society recently split Diptera recording for the two counties. Tom Mawdsley is responsible for Cheshire and Simon Hayhow has taken on Lancashire. Syrphidae are still covered by the North West Hoverfly Recording Group under the leadership of Darwyn Sumner.

The two counties have had their notable dipterists but little has been published since Part 1 of Leonard Kidd and Alan Brindle's *The Diptera of Lancashire and Cheshire* in 1959. The Society is currently trying to publish revised county check lists for all Orders and an update of the Diptera is overdue. It is currently difficult to identify new County records and with the resurgent interest in the North West, inspired by the Society's close association with Liverpool and other museums, a new checklist and the status review is required. Both County Councils are also in the process of compiling Red Data Books, which include the Diptera.

Despite the efforts of past dipterists, the area of Lancashire north of the Ribble has never been well recorded, even though there are rich coastal moorland and limestone habitats. Anyone visiting the region in the future or with unpublished records is encouraged to submit them to the following recorders:

Lancashire (VCs 59 & 60):	Simon Hayhow, Lancashire County Museum Service, Fleetwood Museum, Queen's Terrace, Fleetwood, Lancs, FY7 6BT
Cheshire (VC 58):	Tom Mawdsley, Entomology Department, Liverpool Museum, William Brown Street, Liverpool, L3 8EN
Hoverflies VCs 58,59,60):	Darwyn Sumner, 54 Blackshaw Lane, Royton, Oldham, Lancs, OL2 6NR

Simon Hayhow

## Larger Brachycera in Lancashire

I am currently collating records for a review of the status of the Larger Brachycera in VCs 59 and 60. I would be most grateful for any unpublished records of even the most common species. All contributions will be acknowledged in the report.

Simon Hayhow, Lancashire Diptera Recorder for Lancashire and  
Cheshire Entomological Society (address above).

## Request for material of *Dasiops* (Lonchaeidae)

Females agreeing with Morge's figures of *D. perpropinquus* were found at Dinton Pastures. Examination of specimens of both sexes from two other sites, which I had previously determined as *D. spatiosus* has, however, suggested that they are conspecific. Examination of a meagre material available to me of the genus (25 specimens) has indicated that *D. hennigi* (from Yorks, Ashberry Pastures) and *D. solivagus* (from Windsor Forest and Mark Ash Wood) also occur in Britain, while I have seen only 3 of the 5 species of Dasiopinae (including *Silvestrodasiops occultus* from Burnham Beeches) already on the British list. It appears from these findings that British material of the genus requires revision. It seems that males of some species are hard to come by and Morge described some species from females only. Any specimens of *Dasiops* would therefore be welcome for examination, particularly where both sexes have been collected together.

Peter Chandler

## Fly Recording at Dinton Pastures, Reading

It was reported in the previous Bulletin that a Diptera list was being built up for this site surrounding the BENHS building. Most material collected in 1993 has now been determined with the assistance of some specialist (Henry Disney, Phil Withers, Kathleen Goldie-Smith and Alan Stubbs have kindly identified material of Phoridae, Psychodidae, Dixidae and crane flies sensu lato, respectively). Simuliidae, Chironomidae and Cecidomyiidae have not been collected at all, although Andrew Halstead has provided records of some galls of the latter. The list is now in the region of 960, with a few further additions to the British list and about 50 currently classified as warranting RDB or Notable status.

Some of the other interesting finds not mentioned in the previous Bulletin included *Campsicnemus marginatus*, *Nematoproctus distendens*, *Platypalpus niveiseti*, *Neoscia interrupta*, *Ictericus westermanni*, *Siphonella oscinina*, *Wagneria gagea*, *Eustalomyia hiliaris* and *Fannia gotalandica*. The species total for Sciomyzidae has reached 30. A progress report including a full list and comments on plant association and other biological requirement where known has now been prepared for the information of the Country Park authorities, to supplement comments on the conservation value of particular habitat which had previously been supplied to them.

Attention will be directed in 1994 towards filling the gaps in knowledge which have been highlighted by this preliminary list. Several BENHS Field Meetings are planned to cover other orders and one biased toward Diptera will be held in June.

Peter Chandler

## The Scottish DOTY Award

The Scottish Dipterist of the Year was this year awarded to Iain MacGowan at the Malloch Society's annual dinner in Perth, by last year's winner - Graham Rotheray. Iain was a founder member of the Malloch Society, and has been a very keen active supporter of all the various projects that the society has been undertaking. While working for NCC and SNH, he has been keenly involved in research work on Scottish Diptera - producing, among many papers: the Atlas of the Scottish Dolichopodidae; with Graham Rotheray and helped by members of the Malloch Society he showed that the RBD1 Pinewood hoverfly *Callicera rufa* is far more common than previously realised; and this year he has produced a Malloch Society Report on "The entomological value of Aspen in the Scottish Highlands", based on two year's investigative work carried out



by the Malloch Society, on the Diptera larvae found under the bark of Aspen. Congratulations Iain on your well deserved award!

Kenn Watt

### The Malloch Society AGM

On Saturday 27th November, the Malloch Society AGM was held in Perth Museum, where 15 interested Scottish dipterists attended. This year the informal Malloch Society was duly constituted as a formal society with a constitution and office bearers. This change was brought about by the increasing number of funded research projects awarded to the society by various bodies such as Scottish Natural Heritage and Worldwide Fund for Nature.

The Malloch Society was founded in 1986 by a group of dipterists based in Scotland. The aim of the Society is to improve the knowledge and understanding of Diptera, particularly Scottish Diptera. Working as a team, Malloch Society members engage in research projects on Diptera. As far as possible, results are published and are intended to make a positive contribution to the conservation both of Diptera and of the natural environment generally, and to promote the educational and scientific values of Diptera, especially Scottish Diptera.

### Malloch Society Reports:

- 1 The entomological value of Aspen in the Scottish Highlands. Iain MacGowan, 1993.
- 2 Insects from shingle banks and riverside habitats from Strathspey. Graham E. Rotheray, 1993.

in preparation:

- 3 The status and ecology of montane Brachycera and Cyclorrhapha (Diptera) in Scotland. David Horsefield and Iain MacGowan
- 4 John Russell Malloch (1875-1963), his early life and contribution to entomology in Scotland. Geoff Hancock and F. C. Thompson.
- 5 The biology and conservation of saproxylic flies in Scottish woodlands. Graham E. Rotheray.
- 6 A catalogue of Scottish Diptera from Robert Henderson's field notebook (1891-1927). Kenneth R. Watt and Geoff Hancock.

For further information regarding the Malloch Society or its Research Reports, please contact: The Secretary, David Horsefield, SNH, 2 Anderson Place, Edinburgh, EH6 5ND, tel 031 554 9797.

### A dipterist in Uzbekistan

Last November I visited various towns on the former Silk Road in Uzbekistan with no intention of thinking about entomology. One feature of the roadside trees did attract my attention, however. Roadside trees are whitewashed on their lower trunks and our guide informed us that this was to prevent ants from infesting the trees, but I suspect the real reason is to mark roadsides for traffic at night. Whitewash clearly shows the presence of sap runs and I was amazed about the number of trees that had very considerable sap runs. Most tree species were affected, but sap runs on mulberry were particularly apparent. It would be interesting to see what the fauna of these sap runs was. Insects were scarce, but I did see the ubiquitous *Episyrphus balteatus*, a few *Syrphus*, *Metasyrphus* and *Eristalis* which I did not retain.

Roger Morris

### Up and flying again

His friends will be pleased to hear the Ian Hudson is back in the running and actively recording again.

## An alternative to alcohol for Dipterists.

When faced with the need to preserve larvae or adults of some families most of reach for the bottle, that is the bottle of IMS or some other mysterious chemical based concoction which takes the skin off the fingers! In my job I was faced with the prospect of sampling invertebrates from sites using water-traps and malaise traps where Diptera were a major target group. Having had some experience with the heady delights of sifting wet flies in a sea of IMS, under the heat of a 60W bulb, I felt that there must be alternatives. A brief consultation with a friend in the "museum" service drew my attention to a substance called Propylene Phenoxetol. A 1% aqueous solution of this chemical was claimed to be the ideal replacement for formalin or alcohol; the solution is colourless, odourless and non-volatile whilst colour retention of specimens is good and tissues remain soft and flexible. Despite my yearning to continue with the pungent carcinogenic solutions of formaldehyde and highly volatile and flammable IMS, I decided to give this new preservative a try.

The vexed problems of formalin were not totally removed as the approach to using Propylene Phenoxetol involves two stages: the first is a fixing stage which does indeed include formaldehyde in the solution; the second, or storage, stage is a solution without formaldehyde.

This approach has been developed and advocated by a range of workers including Owen & Steedman<sup>1</sup> in relation to general preservation and Cooke<sup>2</sup> in preserving spiders.

The method is as follows:-

1. Fresh material is placed in a fixing solution composed as follows:-

Propylene Phenoxetol	1 ml.
Propylene Glycol (Propane-1,2-diol)	5 ml.
40% Formaldehyde	10 ml.
Distilled Water	<u>84 ml.</u>
	100 ml.

The formalin "fixes" the material and the Propylene Glycol stabilises the Propylene Phenoxetol. The material should be left in this solution until the tissue has been "fixed", for small insects this is presumed to take a short time, perhaps an hour or so. In malaise traps the fixing solution is used in the trap bottle and can be left in the field for several weeks.

2. Once "fixed" the material is removed from the above solution and washed to clear out the formalin. Specimens are then stored in the following solution:-

Propylene Phenoxetol	1 ml.
Propylene Glycol	10 ml.
Distilled Water	<u>89 ml.</u>
	100 ml.

The result is a safe, non-volatile, non-flammable preservative that is much safer to work with under the microscope and appears to be relatively stable over time. I am aware of one incident of apparent failure with a fish preserved in the BMNH, but can only suggest that the fixing process was insufficient. I have had no evidence of specimen breakdown after 8 years of use.

Propylene Phenoxetol, or 1-phenoxy-propan-2-ol as it is known to its friends, is a colourless, slightly viscous

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<sup>1</sup>Owen, G & Steedman, H.F. 1956. *Quart. J. Micro. Sci.* 97, 3, 319.

<sup>2</sup>Cooke, J.A.L., 1969. *Bull. Brit. Arachnol. Soc.* 1, 3, 42

liquid at room temperature. If it is left in a cold storage area it will solidify to a waxy material which can be remelted by returning the bottle to room temperature. It is soluble at 1 part per 100 parts of water at 20°C but is more easily made into solution by mixing with Propylene Glycol prior to adding the water. The commercial application of Propylene Phenoxetol is as a medical bactericide at 2% solution and thus at the strengths being used should represent no hazard through skin contact. As with any chemical drinking the full strength chemical should be avoided and the pure material is moderately irritant to skin and eyes. The usual precautions apply when handling this chemical; washing skin with soap and water; rinsing eyes with water and seeking medical advice and seeking medical advice if ingested. These are sensible precautions which should be taken with any such material and Propylene Phenoxetol is much safer in these respects than some of the competition!

Propylene phenoxetol is uniquely produced by NIPA Laboratories, Llantwit Fardre, Pontypridd, Mid-Glamorgan, CF38 2SN (Tel: 0443 205311). They supply it in units of 1 kilogramme, which is approximately 1 litre. The normal unit for sale is 10 kg, but smaller quantities can be supplied. The scale of costs (as of October 1993) is:-

Weight	Total cost	Cost/kg
1kg	£100	£100
2kg	£100	£50
3kg	£100	£33.33
4kg	£120	£30
10kg	£220	£22
(25kg)	£200	£8.20)- at 1992 prices

It is clear that there is a minimum charge of £100 and considerable economies to be made by buying in bulk. In calculating total costs of the two solutions both come out at around £1 per litre, falling in cost as larger quantities are made. There is clearly a potential market here for some enterprising person.

From a practical point of view I have found that some specimens can be restored from this preservative to produce perfectly acceptable dry specimens, this is particularly true of groups such as Tabanids or hairy species like *Cheilosia chrysochoma*. This is a very crucial need in some groups where identification involves detection of dust patterns. In other groups, such as Pipunculids some of my colleagues have found great benefits in being able to see genitalia everted without the need of dissection.

Keith Porter

## WANTS AND EXPERTS LISTS

In the last issue, I announced that I will start this list. Please write in if you want to be added. To make the idea work, a couple of ground rules may be useful:

- Unless stated to the contrary (eg all or any material), these specialists are prepared to check tricky specimens but do not provide an identification service.
- If specimens are wanted back, the enquirers should be prepared to refund postage.

Some specialists may be willing to provide a more extensive identification service for a fee. I hope that no-one feels excluded from adding their name to the list just because someone got their first. Addresses may be found in the list that was circulated with Bulletin 36 (1993).

Trichoceridae	Alan Stubbs
Tipulidae	Alan Stubbs
Ptychopteridae	Alan Stubbs
Anisopodidae	Alan Stubbs
Mycetophilidae	Peter Chandler
Stratiomyidae	Martin Drake
Asilidae	Martin Drake