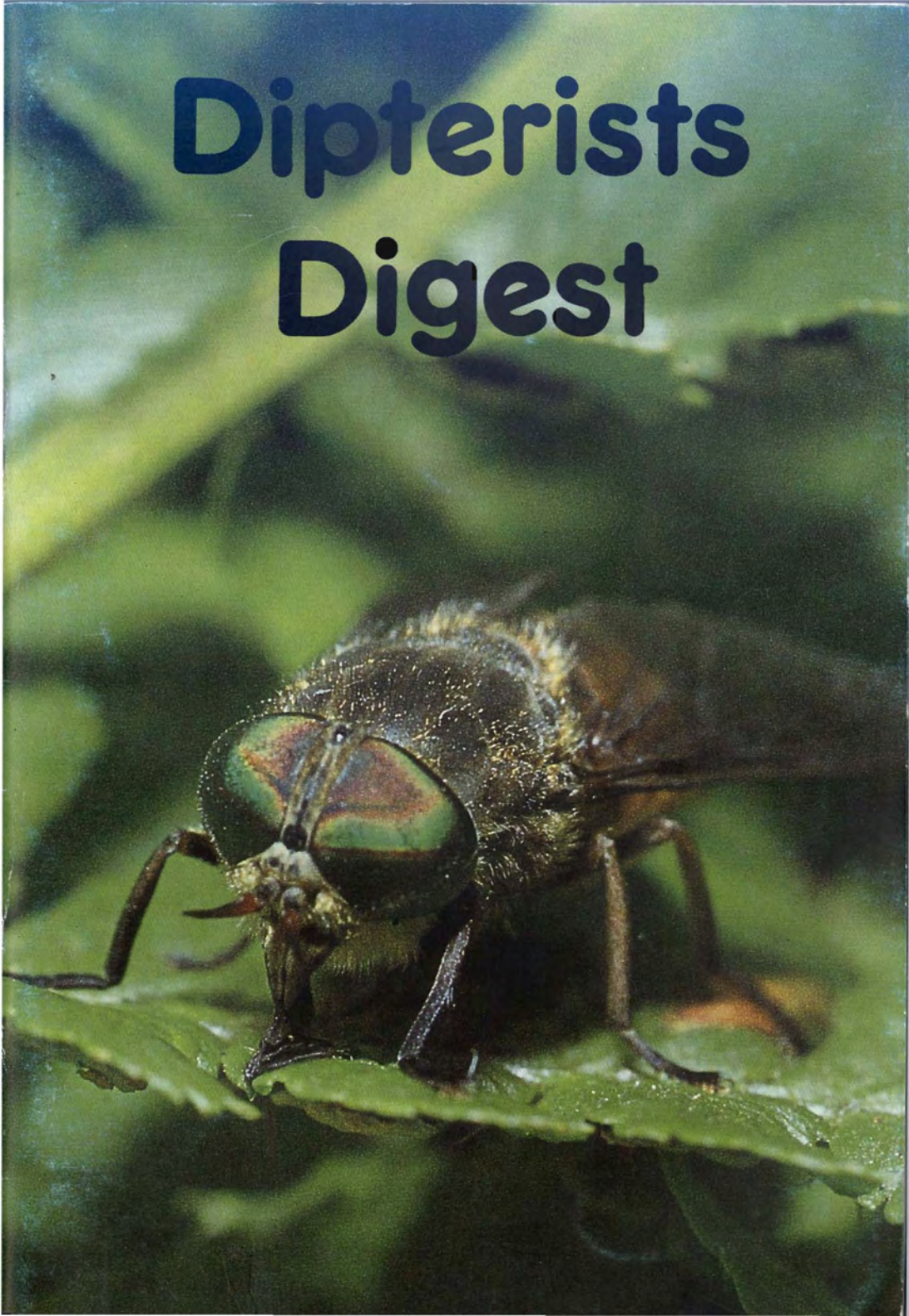
Dipterists Digest



Dipterists Digest

No. 11

1992

Published by:
Derek Whiteley - Sheffield - England

ISSN 0953-7260

DIPTERISTS DIGEST
DEREK WHITELEY
17 RUSTLINGS ROAD
SHEFFIELD S11 7AA

Printed in 1992 by Quacks the Booklet Printer, 7 Grape Lane, Low Petergate, York, YO1 2HU. Tel. (0904) 635967

CONTENTS

An Imperial Dipterist ?

Robert Blackith

There is a curious story related of the Roman Emperor Domitian (Titus Flavius Domitianus , reigned A.D. 81 - 96) that he spent each morning catching and pinning flies. In the words of the historian Suetonius (translated by J.C.Rolfe , 1979)

" At the beginning of his reign he used to spend hours in seclusion every day doing nothing but catch flies and stab them with a keenly-sharpened stylus . Consequently , when someone once asked whether anyone was with the Emperor , Vibius Crispus made the witty reply ' not even a fly ' "

Quintus Vibius Tertius Crispus was a Consul in or near A.D.83 , thus dating this story to about the fourth year of Domitian's reign . Classical stories have come down to us interpreted by the thought patterns of historians and philosophers with a conspicuously rudimentary interest in natural history , and this aspect of Domitian's life is usually written off as evidence of an enjoyment of wanton cruelty and , indeed , madness (Löfstedt , 1958) . However, Domitian's ability as an administrator and love of literature and the fine arts during his early reign is generally praised . Harvey (1937) describes the Flavians' reigns , including Domitian's , as ' wise and efficient ' . Moreover, an Emperor with absolute power , who sometimes personally held the chains of prisoners while they were being summarily tried and bloodily executed , is hardly likely to have needed to get his kicks out of pinning flies , and even less likely to want to do so for hours on end , day after day . That historians in classical times paid little attention to the topic is suggested by the fact that Dion Cassius , who wrote a whole chapter in Greek on Domitian's reign , makes no mention of the flies . We are unlikely ever fully to resolve Domitian's paradoxical behaviour , but my guess is that he was fascinated by flies and studied them in the unorganised manner made almost inevitable by the lack of anything better than myth as a guide to the Diptera . The word for fly used by Suetonius is *musca* , not the more general *insectum* , and although precise usage in popular writing cannot be relied on at any period ; it does seem reasonable to suggest that Domitian was a proto-dipterist .

References

Harvey, P. (1957) **The Oxford Companion to Classical Literature** , p. 374 , Oxford University Press , reprinted 1957

Löfstedt , E. (1958) **Roman Literary Portraits** , translated by P.M.Fraser, p. 148 , Oxford , Clarendon Press

Rolfe , J.C. (1979) **Suetonius' Lives of the Caesars** , Book VIII , Chapter III (p. 345 of volume 2 of the Heinemann edition ed. J.C.Rolfe , reprinted 1979)

Robert Blackith, Zoology Department, Trinity College, Dublin-2, Republic of Ireland .

FLIES OF THE ESSEX COAST

David Gibbs

During 1988 I worked on the invertebrate communities of Essex saltmarshes. The project, funded by Anglian Water and based at the University of Essex in Colchester, aimed to classify saltmarshes by their relative conservation value. The following account reports the Diptera records from this survey and from my private collecting at coastal localities.

The Saltmarsh environment, with twice daily flooding over much of its area and consequent large fluctuations in salinity and moisture content, is a demanding one. Hence the Diptera fauna is rather impoverished relative to a more hospitable terrestrial or fresh-water habitat. However saltmarshes still hold much to interest the dipterist.Although many generalists exploit the habitat a large number of species are specialists chiefly confined to saltmarshes or other coastal habitats.

Invertebrate communities on saltmarshes have not attracted much attention. Little, Payne, Aaldhous & Scott (1988) report their survey of several arthropod orders from saltings in the Severn Estuary and their five sites produced 45 species of Diptera. This is the only comparable study of the British saltmarsh Diptera I have seen.

Methods and Sites

Essex boasts the largest area of saltmarsh to be found in Britain over 5,000 ha (Boorman & Ranwell, 1977). The present survey covered 26 sites on well developed saltmarshes (Fig -1, Appdx), one site along a narrow strip of littoral vegetation on the shore of the Stour at Stour Wood and one site with many fresh-water seepages along the clay cliffs at Walton-on-the Naze. The saltmarshes are a rather homogeneous habitat dominated by a few specialist plant species notably *Puccinellia maritima, Haliomione portulacoides, Aster tripolium* and *Salicornia* agg. They are usually backed by a sea wall dominated by *Elymus pycanthus.*

Diptera were collected at all sites using a sweep net and also, at those sites included in the systematic study, a core sampler. The latter produced few adult diptera but many of those occurring were species not found by sweeping. Also many of the pupae found by this techniques were reared, adding to the diversity. the core samples were taken throughout the season from April to September. The majority of the sweep netting was completing in July and August. For this reason few Diptera with early flying seasons will have been found.

Annotated list

The following list summarises the occurrence of the 232 species found at the sites surveyed. I have not mentioned national status and distribution unless particularly germane. When a species is followed by * the identity is tentative.

TIPULIDAE

Erioptera stictica (Meigen) This saltmarsh specialist was recorded nearly everywhere, larvae often abundant.

PSYCHODIDAE

Telmatoscopus soleatus (Walker) Taken from strand line at South Benfleet.
Psychoda cinerea Banks. Found on main body of saltings on Ray Island.

CHIRONOMIDAE
Halocladius varians (Staeger) One along strand line at Stone Point.
Bryophaenocladius nidorum (Edwards) One from strand line at Tollesbury.
Thalassosmittia thalassophila (Goetghebuer) Found at two sites, probably widespread on Essex saltings.

SIMULIIDAE

Simulium ornatum Meigen. Common at Thorrington in early spring.

ANISOPODIDAE

Sylvicola punctatus (Fabricius) One taken at Dovercourt.

BIBIONIDAE

Bibio johannis (L.) One on saltings at Stone Point.
Dilophus febrilis (L.) Widespread, sometimes abundant.
D. humeralis Zett. Three taken along strand line at Paglesham.

SCIARIDAE

Bradysia brunnipes (Meigen) From saltmarsh at Little Wakering and Canvey Point.

SCATOPSIDAE

Scatopse notata (L.) One amongst strand line debris on Mersea Island.

STRATIOMYIDAE

Nemotelus notatus Zett. One just behind sea wall at Alresford.

N. uliginosus (L.) Abundant at Dovercourt but otherwise only from Skippers Island and Alresford.

Stratiomys longicornis (Scopoli) One freshly emerged example of this handsome fly found resting on *Limonium* in water-logged part of the saltmarsh in Copperas Bay.

TABANIDAE

Haemotopotus pluvialis (L.) Only noted at Alresford and Copthall.

Atylotus latistriatus (Brauer) A male and female of this scarce species reared from well grown larvae found in a water-logged, *Limonium* dominated part of the saltmarsh at St Osyth.

Hybomitra expollicata (Pandellé) Two females of this rare fly trapped themselves in my car at Copthall.

Tabanus autumnalis L. One female taken with *H. expollocata.*

EMPIDIDAE

Platypalpus albocapillata (Fallén) Two examples of this coastal species taken from just behind the sea wall at Alresford.

P. notata (Meigen) One from strand line at Colne Point.

P. pallidiventris (Meigen) Frequent at Tollesbury and Little Wakering.

P. pictitarsis (Becker) Found along the shore of the River Stour at Stour Wood.

P. praecinctaus (Collin) Collected at same location as last species.

P. strigifrons Zett. This coastal species was frequent at Dovercourt.

Micromorphus crassipes Macquart. One along tide line at Stour Wood.

Empis albinervis Meigen. As last species.

Hilara lundecki Frey. A coastal species, found over seepages on the clay cliffs at Walton-on-the-Naze.

H. manicata Meigen. Along shore near Stour Wood.

Dolochocephala irrorata (Fallén) On saltmarsh at Dovercourt.

Clinocera stagnalis (Haliday) From fresh-water seepages on cliffs at Walton-on-the-Naze.

DOLICHOPODIDAE

Dolichopus clavipes Haliday. Taken on saltmarsh at Dovercourt and on cliffs at Walton.

D. diadema Haliday. Locally common on saltings.

D. griseipennis Stannius. Common along tide line at Little Wakering.

D. nubilus Meigen. Frequent on saltings.

D. plumipes (Scopoli) At seepages on cliffs at Walton.

D. sabinus Haliday. Common on saltmarsh at Dovercourt and along cliffs at Walton.

D. strigipes Verrall. Found along strand line at Dovercourt, Skippers Island and Copperas Bay.

D. ungulatus (L.) Only found at seepages on cliffs at Walton.

Poecelibothrus principalis (Leow) On saltmarsh at Dovercourt.

Hydrophorus oceanus (Macquart) An abundant species recorded on nearly all saltings.

H. praecox (Lehmann) Frequent at fresh-water seepages on cliffs at Walton.

Thinophilus flavipalpis (Zett.) Two from saltmarsh at Dovercourt.

T. ruficornis (Haliday) Two taken with last species.

Aphrosylus mitis Verrall. Two examples of this scarce species found along the Stour at Stour Wood.

Medetera saxatilis Collin. Frequent along tide line of marshes and cliffs.

M. truncorum Meigen. Only found at Walton-on-the-Naze and Dovercourt.

Rhaphium caliginosum Meigen. Only found at Fingringhoe.

R. consobrinum Zett. A frequent saltmarsh species.

Syntormon aulicus (Meigen) One female from strand line in Copperas Bay.

S. pallipes (Fabricius) Found at most sites, often abundant.

Machaerium maritimum Haliday. A saltmarsh specialist found at many sites.

Chrysotus palustris Verrall. One from under-cliff at Walton-on-the-Naze.

Argyra vestita (Wiedemann) Frequent on many saltings.

Campsicnemus armatus (Zett.) Another frequent saltmarsh species.

C. curvipes (Fallén) Only found at fresh-water seepages at Walton.

Sympycnus desoutteri Parent. Seepages on cliffs at Walton.

Micromorphus albipes (Zett.) Quite frequent on saltings.

LONCHOPTERIDAE

Lonchoptera lutea Panzer. Only taken at two sites.

PLATYPEZIDAE

Opetia nigra Meigen. One from tide line at Little Wakering.

PIPUNCULIDAE

Verrallia pilosa (Zett.) One taken on cliff at Walton.
Cephalops semifumosus (Kowarz) One from saltmarsh at Stone Point.

SYRPHIDAE

Melanostoma mellinum (L.) Frequently visits flowers on saltings.
Platychirus clypeatus (Meigen) Another commonly found species.
P. fulviventris (Macquart) One taken along strand line at Copperas Bay where Phragmites is encroaching onto the marsh.
P. manicatus (Meigen) From saltings at Ray Sands, South Benfleet and Stambridge.
P. scutatus (Meigen) Taken on saltings at Decoy Point and Marsh House.
Episyrphus balteatus (Degeer) Only found at three sites.
Eupeodes corollae (Fabricius) Ray Sands.
E. luniger (Meigen) Steeple Creek.
Sphaerophoria rueppellii (Wiedemann) Along strand line of saltings at Little Wakering and Dovercourt.
Neoascia podagrica (Fabricius) Only found along strand line at Little Wakering.
Syritta pipiens (L.) Along strand line at Fingringhoe and Ray Sands.

TEPHRITIDAE

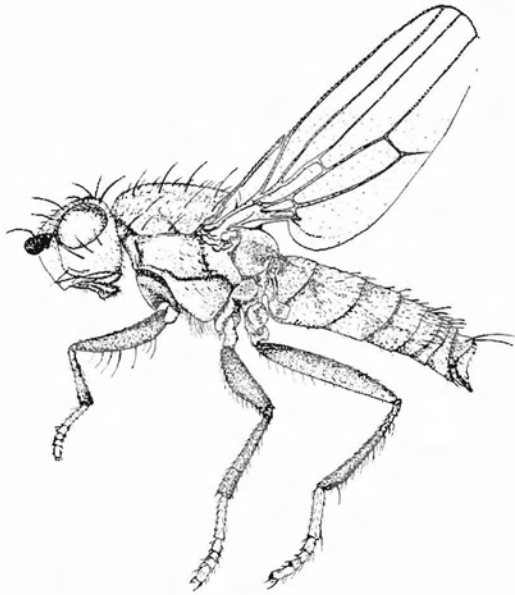
Myopites eximia Séguy. A few found at Ray Island and Dovercourt.
Paroxyna absinthii (Fabricius) One taken at Copthall.
P. plantaginins Haliday. On most saltings and often common.
Tephritis formosa (Loew) Taken on cliff at Walton.
Sphenella marginata (Fallén) Two collected well out on saltmarsh at Marsh House.

OTITIDAE

Melieria cana (Loew) Taken at Bradwell and Dovercourt.
M. crassipennis (Fabricius) Taken at Dovercourt and Stour Wood.
M. omissa (Meigen) Swept from *Scirpus maritimus* in brackish lagoon at Stone Point.
M. picta (Meigen) By far the commonest member of the genus, conspicuous on most marshes.

PSILIDAE

Psila rosae Meigen. Found well out on marsh at Bradwell and Tollesbury.



Canace nasica Halıday.
Frequent at seepages along cliff at Walton.

M. picta (Meigen) By far the commonest member of the genus, conspicuous on most marshes.

CHAMAEMYIIDAE

Chamaemyia aridella (Fallén) On saltings at South Benfleet and Mersea Island.
C. flavipalpis Haliday. One from saltmarsh at Dovercourt.
C. nigripalpis Collin. Also from Dovercourt.

LAUXANIIDAE

Minettia rivosa (Meigen) Found on saltmarsh at Dovercourt and seepages along cliff at Walton.
Sapromya quadripunctata L. One found at Dovercourt.

COELOPIDAE

Malacomyia sciomyzina (Haliday) One found along shore of Stour at Stour Wood.

SEPSIDAE

Themira annulipes (Meigen) Taken on small very eroded saltmarsh at Stambridge.
T. minor (Haliday) At seepages along cliff at Walton.
T. putris (L.) Taken with T. *minor*.
Nemopoda nitidula (Fallén) Two found along strand line at Paglesham.
Sepsis cynipsea (L.) The most frequently found member of the genus on Essex saltings.
S. flavimanna Meigen. Taken along strandline at Stone Point and Stambridge.
S. fulgens Meigen. Found at Ray Island and Tollesbury.
S. punctum (Fabricius) One found on saltmarsh at St Osyth.

SCIOMYZIDAE

Elgiva solicita (Harris) One taken behind sea wall at Alresford.
Pherbina coryleti (Scopoli) Frequent, the only Sciomyzid found inhabiting the inter-tidal zone.

SPHAEROCERIDAE

Borborillus costalis (Zett.) One well out on marsh at Stambridge.
Copromyza equina Fallén. Along shore of Stour at Stour Wood.
C. stercoraria (Meigen) One from strand line at Paglesham.
Lotophila atra (Meigen) One at Thorrington in early spring.

Ischiolepta pusilla (Fallén) One taken in core sample from muddy foreshore beyond limit of saltmarsh at Dovercourt.

I. scabricula (Haliday) One swept from thin vegetation at seaward edge of saltmarsh on Ray Island.

Coproica acutangula (Zett.) Swept from saltings at Osyth and Stone Point.

Leptocera fuscipennis (Haliday) The most frequent member of the family on saltings.

L. lutosa (Stenhammer) Found along shore of Stour at Stour Wood and on cliffs at Walton.

L. lutosoides (Duda) Collected with last species.

L. nigra Oliver. Along the Stour at Stour Wood.

Opacifrons coxata (Stenhammer) Found along strandline at several sites, often abundant.

O. humida (Haliday) Taken with last species at Stour Wood and Walton.

Opalimosina mirabilis (Collin) One from fresh-water seepages on cliffs at Walton.

Pteremis fenestralis (Fallén) Found at Colne Point and Thorrington.

Pullimosina heteroneura (Haliday) Found along shore of Stour at Stour Wood.

P. modesta (Villereuve) Taken in core sample from saltmarsh at Fingringhoe.

Spelobia nana (Rondani) Found along strand line at Decoy Point.

PIOPHILIDAE

Piophila vulgaris Fallén. Swept from strand line at Mersea Island.

ANTHOMYZIDAE

Anthomyza gracilis Fallén. From shore at Stour Wood and cliffs at Walton.

A. sordidella (Zett.) Swept from strandline at Brandy Hole.

Stiphrosoma sabulosum (Haliday) Found in core sample from strand line at Colne Point.

ASTEIIDAE

Asteria concinna Meigen. Taken on saltings at Dovercourt and Alresford.

CAMILLIDAE

Camilla fuscipes Collin. From around rabbit burrows in cliff at Walton.

EPHYDRIDAE

Clanoneurum cimiciforme (Haliday) A common species on many saltings.

Psilopa leucostoma (Meigen) Another frequent species.

P. nitidula (Fallén) One swept from strand line at Little Wakering.

Notiphila cinerea Fallén. From both saltings and cliff seepages, often common.

Hydrellia albilabris (Meigen) One swept from a narrow strip of saltmarsh vegetation along the Stour at Stour Wood.

H. cochleariae (Haliday) Found at Copperas Bay, Steeple Creek and Stambridge.

H. griseola (Fallén) Frequent on saltings, common where found.

H. modesta Loew. Only found on saltmarsh at Stone Point.

Philygria punctatonervosa (Fallén) Common along shingle bar enclosing saltmarsh at Dovercourt.

P. vitripennis (Zett.) Swept from saltmarsh at Dovercourt.

Parhydra coarctata (Fallén) Taken from seapages at Walton and along shore at Stour Wood.

P. fossarum (Haliday) Common at seepages on cliff at Walton.

Pelina aenea (Fallén) One taken from seepages on cliff at Walton.

P. nitens Loew. Found along strand line at Copperas Bay and on brackish lagoon at Stone Point.

Ephydra macellaria Egger. Common on brackish lagoon at Stone Point.

Limnellia quadrate (Fallén) Swept from middle of marsh at Paglesham.

Philotelma defecta (Haliday) Reared from pupae found along strand line at Copperas Bay.

P. nigripenne (Meigen) Swept from strand line at Copperas Bay and Paglesham.

Lamproscatella dichaeta (Loew) Taken from seepages along cliff at Walton.

L. sibilans (Haliday) Frequent on brackish lagoon at Stone Point.

Scatella ciliata Collin. Swept from strand line at Colne point and brackish lagoon at Stone Point.

S. lutosa Haliday. Taken from seepages along cliff at Walton.

S. paludum Meigen. Frequent on brackish lagoon at Stone Point.

S. stagnalis (Fallén) A common species on Essex saltings.

S. subguttata (Meigen) A few found on brackish lagoon at Stone Point.

S. tenuicosta Collin. The most frequently encountered species on Essex saltings.

Scatophila noctula (Meigen) One swept from strand line at Dovercourt.

Coenia palustris (Fallén) One taken from fresh-water seepages on cliff at Walton.

DROSOPHILIDAE

Chymomyza wirthi Wheeler. One male swept from the seaward edge of the saltmarsh at Canvey Point. New to Britain, details shall be published later.

Scaptomyza flava (Fallén) Found well out on saltings at Tollesbury and Stone Point.

S. graminium (Fallén) One reared from pupae found along strand line at Copperas Bay.

S. pallida (Zett.) Often taken on all parts of saltings.
Drosophila andalusiaca Strobl. Found along strand line at several sites.
D. fenestrarum Fallén. One swept from strand line at Two Tree Island.

TETHINIDAE

Pelomyiella mallochi (Startevant) Frequent along shingle bar at Stone Point.
Tethina flevigenis (Hendel) One swept from saltmarsh near shingle bar at St Osyth.

CANACIDAE

Canace nasica Haliday. Frequent at seepages along cliff at Walton.
Xanthocanace ranula (Loew) Found in littoral zone at Marsh House and Dovercourt.

AGROMYZIDAE

Melanagromyza tripolii Spencer. A common species on many saltings.
Agromyza nigrella Rondani. One swept from strand line at Little Wakering.
Calycomyza humeralis (von Roser) Swept from littoral zone at Tollesbury and Fingringhoe.
Liriomyza angulicornis (Malloch) One of the most frequently encountered saltmarsh Agromyzids in Essex.
L. latipalpis Hendel. Also frequent but less so than last species.
L. strigata (Meigen) One swept from strandline at Fingringhoe.
Napomyza lateralis (Fallén) Two swept from saltmarsh at Stone Point.
Phytomyza asteris Hendel. Swept from littoral zone at Copthall and Ray Island.
P. horticola Goureau. Found at Dovercourt and South Benfleet.
P. milii Kaltenbach. On cliffs at Walton.
P. nigra Meigen. Two swept from saltmarsh at Stone Point.
P. ranunculi (Schrank) On cliffs at Walton.
Cerodontha atronitens (Hendel) On cliffs at Walton.
C. denticornis (Panzer) A widespread and often abundent species on the Essex saltings.
C. muscina (Meigen) One swept from saltmarsh near shingle bar at St Osyth.
C. superciliosa (Zett.) Swept from saltmarsh at Dovercourt.

CHLOROPIDAE

Oscinomorpha albisetosa Duda. One swept from strand line at Steeple Creek.
Aphanotrigonum fasciella (Zett.) A frequent saltmarsh species.
A. femorella Collin. Also quite common.

A. inerme Collin. A frequent species found on all parts of saltings.

A. nigripes (Zett.) One swept from littoral zone at Skippers Island.

Conioscinella sordidella (Zett.) One swept from saltmarsh at Skippers Island.

Dicraeus fennicus Duda. A frequent species, abundent on saltmarsh at Dovercourt.

Tropidoscinis albipalpis (Meigen) Taken at Dovercourt, Colne Point and Copperas Bay.

T. nigrifrons (Duda) Frequently taken on saltings.

Oscinella caricphila Collin. A few taken along the strand line at Copperas Bay and Steeple Creek.

O. frit (L.) Very common on many marshes.

O. hortensis Collin. Neatly as frequent as *O. frit.*

O. nigerrima Macquart. One swept from littoral zone on Two Tree Island.

O. pusilla Meigen. Found at Dovercourt and Canvey Point.

Elachiptera cornuta (Fallén) Swept from saltings at Little Wakering and Stow Creek.

Camarota curvipennis (Latreille) Taken from tide line at Paglesham and Little Wakering.

Meromyza nigriventris Macquart. A widespread and often numerous species.*

M. laeta Meigen. One swept from strand line at Steeple Creek.*

M. saltatrix (L.) Swept from strand line at Stow Creek and Fingringhoe.*

Melanum laterale (Haliday) A few found on the cliffs at Walton.

Chlorops fasciatus Meigen. Found at St Osyth, Colne Point and Stone Point, common at the latter.

Thaumatomyia glabra (Meigen) Swept from the littoral zone at Fingringhoe and Little Wakering.

T. hallandica Andersson. One swept from strand line at South Benfleet.

T. notata (Meigen) Found in inter-tidal zone at Tollesbury and St Osyth.

CALLIPHORIDAE

Cynomya mortuorum (L.) One swept from strand line on Two Tree Island.

Lucilia silvarum (Meigen) One swept from seaward edge of saltmarsh at Marsh House.

SCATHOPHAGIDAE

Spaziphora hydromyzina (Fallén) Taken from seepages at Walton.

Scathophaga litorea Fallén. A very common saltmarsh species found nearly everywhere.

S. stercoraria (L.) Also a frequently encountered species but, unlike the last, not reared from any pupae found in the samples.

Ceratinostoma ostiorum (Curtis) Found on several saltings.

ANTHOMYIIDAE

Fucellia maritima (Haliday) One swept from littoral zone of saltmarsh at Stone Point.
F. tergina (Zett.) Swept from littoral zone of saltings at Stone Point and Canvey Point.
Craspedochaeta pullula (Zett.) Found at Decoy Point and Stambridge.
Delia florilega (Zett.) Taken at Stambridge.
D. platura (Meigen) Found at several sites.
Hylemyia latifrons Schnobl. Two taken from strand line at Little Wakering.
Paregle cinerella (Fallén) One from saltmarsh at Stow Creek.
P. radicatum (L.) One from saltmarsh at St Osyth.
Nupedia infirma (Meigen) One collected along strand line at Steeple Creek.

MUSCIDAE

Azelia cilipes (Haliday) One swept from strand line at Copperas Bay.
Helina intermedia (Villeneuve) One female swept from strand line at Colne Point.
H. reversio (Harris) Taken at several saltmarsh sites.
Spilogona aerea (Fallén) Found along strand line at Copperas Bay and Tollesbury.
S. marina (Collin) A common saltmarsh species, pupae often found in tidal refuse.
Limnospila albifrons (Zett.) Frequent on saltings, mainly close to strand line.
Schoenomyza litorella (Fallén) A frequent littoral species, sometimes common.
Dexiopsis lacteipennis (Zett.) Found along strand line at Mersea Island and Stone Point.
D. lacustris Karl. Taken at Mersea Island, Fingringhoe and Tollesbury.
Coenosia antennata (Zett.) A widespread and often abundant species on saltings.
C. humilis Meigen. Taken along cliffs at Walton.
C. infantula Rondani. One swept from strand line at Little Wakering.
C. mollicula (Fallén) Found along cliffs at Walton.
C. pumila (Fallén) Swept from strand line at Alresford, St Osyth and Colne Point.

Acknowledgements

I would like to thank Chris Mason and Dave Heath for supervising the project. Peter Chandler kindly determined the *Chymomyza* for me and Nigel Wyatt gave me much assistance with the collections at the British Museum. I am also very grateful to the many land owners and reserve wardens who gave access to the sites and often assisted.

References

Boorman L.A. and Ranwell D.S. (1977) Ecology of Maplin Sands and the coastal zones of Suffolk, Essex and North Kent. Institute of Terrestrial Ecology.

Little C., Payne R.M. Aldous P., Scott P. (1988) The Insect Fauna of Saltmarshes in the Severn Estuary : a preliminary survey. **Ent. Gaz. 39** : 233-246.

The Sites

1. Stour Wood TM 188 317 a narrow strip of saltmarsh vegetation along the shore of the River Stour.
2. Copperas Bay TM 205 319 saltmarsh.
3. Dovercourt TM 248 298 saltmarsh and shingle bar.
4. Skippers Island TM 204 237 saltmarsh.
5. Stone Point TM 262 248 saltmarsh shingle bar and brackish lagoon.
6. Walton-on-the-Naze TM 266 236 clay cliffs with fresh-water seepages.
7. St Osyth TM 117 126 saltmarsh and shingle bar.
8. Colne Point TM 103 122 saltmarsh.
9. Thorrington TM 002 194 saltmarsh with *Phragmites*.

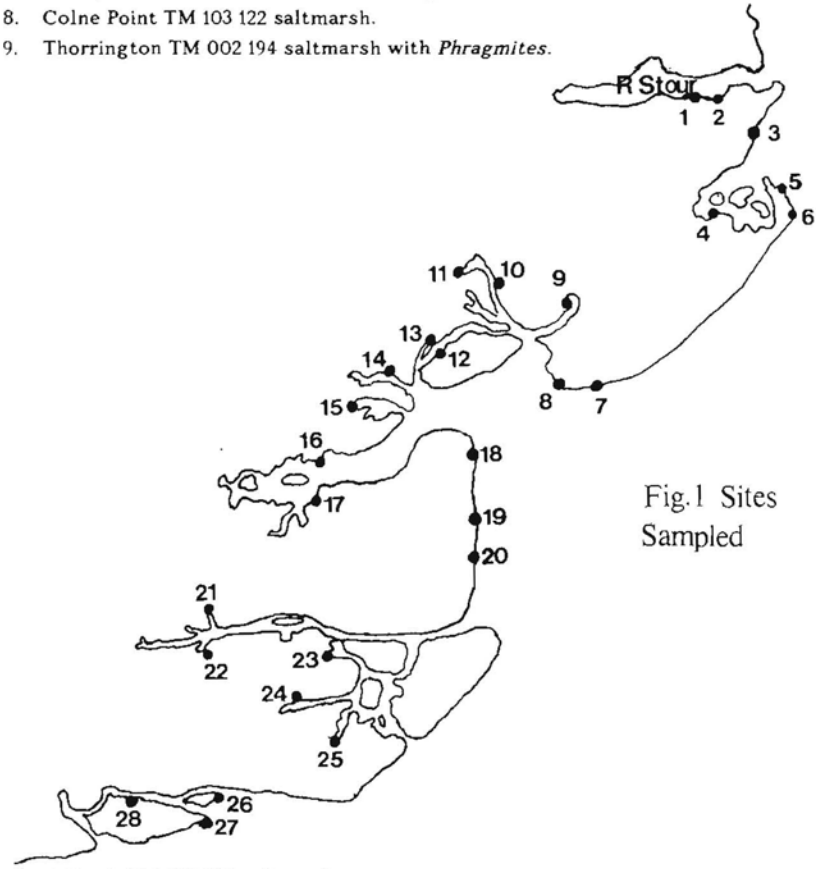


Fig.1 Sites Sampled

10. Alresford Creek TM 059 195 saltmarsh.
11. Fingringhoe TM 037 213 saltmarsh.
12. Mersea Island TM 015 146 saltmarsh.
13. Ray Island TM 010 154 saltmarsh.
14. Copthall TL 983 136 saltmarsh.
15. Tollesbury TL 966 113 saltmarsh.
16. Decoy Point TL 896 074 saltmarsh.
17. Steeple Creek TL 934 045 saltmarsh.
18. Bradwell TM 032 080 saltmarsh.
19. Marsh House TM 032 031 saltmarsh.
20. Ray Sands TM 032 006 saltmarsh.
21. Stow Creek TQ 834 976 saltmarsh.
22. Brandy Hole TQ 828 957 saltmarsh.
23. Paglesham TQ 927 945 saltmarsh.
24. Stambridge TQ 910 913 saltmarsh.
25. Little Wakering TQ 945 895 saltmarsh.
26. Two Tree Island TQ 825 848 saltmarsh.
27. Canvey Point TQ 824 834 saltmarsh.
28. South Benfleet TQ 778 854 saltmarsh.

Records and observations of scarcer Snail-killing Flies (Sciomyzidae) and Millipede-killing Flies (Phaeomyiidae), with a Provisional List of Warwickshire Species

S.J. Falk

The monograph to the Fennoscandian species of the two families by Rozkosny (1984) provides an excellent guide to the British species, with the exception of *Pherbellia knutsoni* Verbeke which is not included but can be keyed out using McLean (1983). A few problems still remain with the separation of females of genera such as *Pteromicra*, *Psacadina* and parts of *Pherbellia*, but essentially these families are amongst the more accessible and taxonomically stable acalypterate groups. The genus *Pelidnoptera* has recently been placed in a separate family, the Phaeomyiidae, by Vala, Bailey & Gasc (1990) who have described the millipede-parasitic nature of one of our species, *P. nigripennis* (Fabricius).

The Sciomyzidae in particular is one of several Diptera families that can be of value in assessing wetland habitat for quality and conservation value (particularly fen and other wetlands of a mesotrophic or calcareous nature). This has encouraged special recording effort by the author on his travels. Records and habitat information on scarcer species (Red Data Book and Nationally Scarce in the Nature Conservancy Council sense (Falk, 1991) encountered are furnished here.

Phaeomyiidae

Pelidnoptera fuscipennis (Meigen) - Coventry, Warks (SP3678) 17.6.91 - swept from herbs in damp, shaded woodland. Aviemore, Elgin (NH8912) 30.6.84 - either from the banks of the Spey or adjacent damp woodland.

P. nigripennis - Feardar Burn, S. Aberd. (NO2293) 30.6.85 - fen with adjacent damp alder woodland.

Sciomyzidae

Colobaea bifasciella (Fallen) - Woodwalton Fen, Hunts. (TL2283) 13.5.90, 28.5.90, 17.6.90 - open mixed fen, pool and ditch margins. Occurs in areas receiving both grazing and cutting management regimes.

C. distincta (Meigen) - Braunton Burrows, N. Devon (SS4534) 20.6.87 - probably from a mid-dune slack. Tocil Wood, Warks (SP3075) 6.7.91 - marshy clearing in ancient woodland.

C. punctata Lundbeck - East Walton Common, W. Norf. (TF7316) 6.7.89 - marshy edges of a large pond (probably a modified pingo pool). Woodwalton Fen 17.6.90 - cattle grazed mixed fen. Coventry, Warks (SP3585) 17.7.91 - small *Typha*-dominated pond in

residential area. Herald Way Marsh (SP3776) 6.7.90 - from reeds and sedges of mesotrophic marsh and carr.

Pherbellia brunnipes (Meigen) - Coventry (SP3583) 17.7.91 - as per *C. punctata*. Herald Way Marsh 6.7.90 - as per *C. punctata*.

P. dorsata (Zetterstedt) - Bishops Palace, Abergwili, Carms. (SN4421) 18.7.88 - margins of a *Glyceria* - choked pool. Pembrey Forest, Carms. (SN3703) 17.7.88 - lush margins of a pool within coniferised fixed dune. Wicken Fen, Cambs. (TL5570) 8.7.89 - *Phragmites* bed of ancient fenland. East Walton Common 27.7.89 - as per *C. punctata*. Woodwalton Fen 13.5.90, 28.5.90, 17.6.90 - as per *C. bifasciella*. Coventry (SP3677) 30.5.91 - small, seasonal pond with limited marginal vegetation. Coventry (SP3582) 17.7.91 -as per *C. punctata*. Herald Way Marsh 13.6.90 - as per *C. punctata*.

P. griseola (Fallen) - Chippenham Fen, Cambs. (TL6469) 13.8.86 - *Phragmites* bed of ancient fenland.

P. nana (Fallen) - East Walton Common 6.7.89 - as per *C. punctata*.

Pteromicra glabricula (Fallen) - Pembrey Forest 17.7.88 - as per *P. dorsata*. Braunton Burrows 13.6.89 - from a shallow, dried up mid-dune slack. East Walton Common 6.7.89 - lush seepage mire associated with a chalk spring. Woodwalton Fen 2.6.90 - as per *C. punctata*.

P. leucopeza (meigen) - Pembrey Forest 17.7.88 - as per *P. dorsata*.

Sciomyza simplex Fallen - Pembrey Forest 17.7.88 - as per *P. dorsata*. Bishops Palace 18.7.88 - as per *P. dorsata*. Laugharne Burrows, Carms. (SN2807) 18.7.88 - *Juncus acutus*, *Phragmites* and *Salix* dominated mid-dune slack. Braunton Burrows 15.6.89 - as per *P. glabricula*. Woodwalton Fen 28.5.90, 17.6.90, 19.5.91 - as per *C. bifasciella*.

Antichaeta analis (Meigen) - Glen Feshie, E. Ness (NN8497) 3.7.84 - tall, coarse vegetation of an upland seepage at 320 metres. Laugharne Burrows 18.7.88 - as per *S. simplex*. Woodwalton Fen 22.4.90, 13.5.90, 28.5.90, 17.6.90 - as per *C. bifasciella* but also taken in some wooded areas.

A. obliviosa Enderlein - Woodwalton Fen 28.5.85 - circumstances of capture not noted, 22.4.90 - open mixed fen, cut during the previous year and waterlogged at the time of the visit, 19.5.91 - cut then 'grazed' fen with pools and ditches. The first two records are for females, the latter relates to a male (which is apparently undescribed). This species was added to the British list fairly recently (Cole, 1988) and to the authors knowledge is still only known from a few Huntingdonshire sites.

Dichetophora finlandica Verbeke - Stanford M.O.D. site, W. Norf (TL8395) 21.8.85 - lush vegetation (nettles etc) within damp woodland. Seemingly very different habitat requirements to *D. obliterata* (Fabricius) which I have recorded variously on chalk downland, calcareous dune grassland and disturbed breck grassland. My former NCC colleague, Roger Key, has also provided me with a *D. finlandica* specimen taken at

Holme Fen NNR, Hunts. (TL2089) on 8.8.85 - a peatland site which is now predominantly damp birch-alder woodland, with few areas that I would consider suitable for *D. obliterata.*

Dictya umbrarum (Linnaeus) - Glen Feshie 3.7.84 - as per *A. analis.*

Ectinocera borealis (Zetterstedt) - Malham Tarn, N.W. Yorks (SD9066) July 1983 - either from the wood behind the field centre or the limestone pavement beyond.

Psacadina zernyi Mayer - East Walton Common 6.7.89 - a very localised population associated with the lush vegetation around a chalk springhead within a shoal of pingo pools and depressions. A large, rather long-winged *Psacadina* female swept from a drainage ditch on Pevensey Levels, E. Suss. (TQ6606) on 31.7.88 may also represent this species, it certainly does not conform to my female *P. verbekei* Rozkosny material. *P. vittigera* (Schiner) was also recorded from the site by S.G. Ball during the same visit, but the specimen does not appear to represent that species.

Tetanocera punctifrons Rondani - Coventry (SP3882) 13.8.91 - *Apium nodiflorum* choked agricultural ditch. Herald Way Marsh 11.6.90, 13.6.90, 6.7.90, 11.7.90 - as per *C. punctata*, also regularly from dense *Phragmites* growing in the marshy depressions of colliery spoil nearby.

T. phyllophora Melander - Holme Fen NNR 10.8.91 - swept from vegetation at edge of birch woodland lying over damp peat.

Further useful vice-county records of local species not now regarded as Nationally Scarce (in the formal Nature Conservancy Council sense) include the following:

Pteromicra angustipennis (Staeger) - N. Devon, Cambs., Carms.
Tetanura pallidiventris Fallen - N. Devon, Warks., Midlothian, S Aberd.
Dichetophora obliterata (Fabricius) - N. Devon, E. Sussex, W. Norf.
Euthycera fumigata (Scopoli) - N. Devon, Cambs., Hunts., Northants., Warks., Pembs.
Psacadina verbekei Rozkosny - W. Norf., E. Norf., Cambs., Northants., Warks. (found at no less than seven sites in this latter vice county during 1990)
Renocera striata (Meigen) - N.W. Yorks.

Special mention should be made of two sites that have yielded particularly long species lists on a single visit. The most noteworthy is East Walton Common, Norfolk. This is a remarkable site containing one of Britain's largest shoals of 'pingos' (pools and depressions created by the melting of permafrost at the end of the last ice age). It also possesses several chalk springs with associated streams and seepages, dry chalk heath, carr and mature woodland. The first visit on 6th July 1989 yielded twenty sciomyzid species, including fifteen from one pond! A soldier fly and cranefly new to Britain were also discovered by Alan Stubbs on the same excursion. A further visit on the 27th of the same month added an extra four species to the site list, though a number of common species (e.g. *Pherbellia cinerella* (Fallen), *P. albocostata* (Fallen), *P. ventralis*) (Fallen) are notably unrecorded.

The second 'Super-Scio' site is a small pool at Pembrey Forest, Carms, which lies within coniferised fixed dune. It yielded thirteen species following 10-15 minutes hasty sweeping and pootering during a rather damp Bees, Wasps and Ants summer field meeting on 17th July 1988. A similarly-lengthed list of species obtained from this spot by the previous years Diptera Recording Scheme field meeting included a further three or four species not found by myself. This high lights the potential value of unpolluted ponds for this fauna, no matter how small, and provides a clear indication that there is much worthwhile recording to be done in far-flung parts of Britain.

Warwickshire Phaeomyiids and Sciomyzids

This county is not especially under-recorded, though the lack of published information, both for Warwickshire, and the Midlands generally, makes it worthwhile to produce this provisional list. Modern (post-1980) information is derived from the recording efforts of Mike Pugh (MP), Tony Barlow (TB), myself (SF) and the Coventry Ecological Survey (C). Older records have come from the J.W. Saunt collection at the Herbert Art Gallery and Museum (JS) and the Diptera section within the Victoria County History of Warwickshire (Saunt, 1940) (VCH).

Pelidnoptera fuscipennis (Meigen) - SF
Colobaea distincta (Meigen) - SF
C. punctata Lundbeck - SF
Pherbellia albocostata (Fallen) - MP, VCH, JS
P. argyra Verbeke - TB
P. brunnipes (Meigen) -SF
P. cinerella (Fallen) - TB, SF, JS
P. dorsata (Zetterstedt) - SF
P. dubia (Fallen) - SF, VCH, JS
P. pallidiventris (Fallen) - TB, SF
P. scutellaris (von Roser) - SF, a female probably of this species was taken by JS
P. ventralis (Fallen) - MP, TB, SF
Tetanura pallidiventris Fallen - SF
Antichaeta brevipennis (Zetterstedt) - TB
Coremacera marginata Fabricius - C, JS
Dichetophora obliterata (Fabricius) - JS
Elgiva cucularia (Linnaeus) - MP, VCH, JS
E. solicita Harris - VCH, JS
Euthycera fumigata (Scopoli) - MP, TB, SF, VCH, JS
Hydromya dorsalis (Fabricius) - MP, TB, SF, VCH, JS
Ilione albiseta (Scopoli) - MP, TB, SF, JS
I. lineata (Fallen) - MP
Limnia paludicola Elberg - MP
L. unguicornis (Scopoli) - MP, SF, VCH, JS
Pherbina coryleti (Scopoli) - MP, TB, SF, VCH, JS

Psacadina verbekei Rozkosny - MP, TB, SF, JS
Renocera pallida (Fallen) - MP, TB, SF, VCH, JS
R. strobli Hendel - MP (a VCH record is requires checking)
Sepedon sphegea (Fabricius) - SF, VCH, JS
S. spinipes (Scopoli) - JS
Tetanocera arrogans (Meigen) - MP, TB, SF, JS
T. elata (Fabricius) - MP, TB, SF, VCH, JS
T. ferruginea Fallen - MP, SF, VCH, JS
T. hyalipennis von Roser - MP, SF, VCH, JS
T. punctifrons Rondani - MP, TB, SF
T. robusta Loew - MP, SF, VCH, JS
T. silvatica Meigen - SF, VCH, JS
T. fuscinervis Zetterstedt - MP
Trypetoptera punctulata (Scopoli) - TB, SF, JS

Acknowledgements

Many thanks are due to Dr. Ian McLean for the checking of some critical material; also to Tony Barlow and Mike Pugh for permission to cite their Warwickshire records.

References

Cole, J. (1988). *Antichaeta obliviosa* Enderlein (Diptera:Sciomyzidae) new to Britain. **The Entomologist, 107** : 155

Falk, S.J. (1991). A Review of the Scarce and Threatened Flies of Great Britain (Part 1). **Research and Survey, 39**. NCC, Peterborough.

McLean, I.F.G. (1983). Some notes on the identification of the British Sciomyzidae. **Sciomyzidae Recording Scheme Newsletter, No. 1** : 3-9

Rozkosny, R. (1984). The Sciomyzidae (Diptera) of Fennoscandia and Denmark. **Fauna Ent. Scand. 15** : 1-224

Saunt, J.W. (1940). Diptera. *In* : **Vic. Hist. Warwickshire, 1** : 158-165

Vala, J.C., Bailey, P.T. & Gasc, C. (1990). Immature stages of the fly *Pelidnoptera nigripennis* (Fabricius) (Diptera:Phaeomyiidae), a parasitoid of millipedes. **Syst. Ent., 15** : 391-339.

Steven Falk, Herbert Art Gallery and Museum, Jordan Well, Coventry CV1 5QP.

THE DISTRIBUTION OF THE GENUS Culex IN BRITAIN

Alun T. Rees and Keith R. Snow

The genus *Culex* is represented in Britain by four species belonging to three subgenera: *Culex (Barraudius) modestus* Ficalbi; *Culex (Culex) pipiens* L.; *Culex (Culex) torrentium* Martini; and *Culex (Neoculex) territans* Walker. *Cx. pipiens* exists in two physiological forms: *typical* and *molestus*.

Older records are of little value as the distinction between the forms of *Cx. pipiens* was not recognised until 1934 and *Cx. torrentium*, which is almost indistinguishable from *Cx. pipiens*, was not discovered until 1951. Also *Cx. modestus* was not added to the list of British fauna until 1944, although this introduced species is easily recognised.

Even today it is not possible to separate immature or female *Cx. pipiens* and *Cx. torrentium* with certainty and the two physiological forms of *Cx. pipiens* are not distinguishable morphologically. All eggs, larvae and pupae of *Cx. pipiens* (both forms) and *Cx. torrentium* are therefore recorded as *Cx. pipiens sensu lato*. In most cases females have to be treated in the same way, only males of *Cx. torrentium* and *Cx. pipiens* being distinguishable.

The following maps were produced from data stored in a computer database (dBASE II) and analysed by a BASIC program developed on an IBM-compatible PC. The records prior to 1940 are primarily those from Marshall (1938). Those from 1940-1969 have been gleaned from published records, and the most recent group (1970 to date) are primarily those received directly by the British Mosquito Recording Scheme.

Each species will now be considered in turn.

Culex torrentium (Fig.1)

Culex torrentium was first reported from Britain in June 1951 when fourth instar larvae were collected in some abundance from water tanks on an allotment at Isleworth, West London (Mattingly, 1951). Identification was made by rearing to the adult stage and noting the structure of the male phallosome and the presence of a prealar scale patch on the sternopleuron. The latter character is unreliable as a small percentage of adults of *Cx. pipiens* have prealar scales while some adults of *Cx. torrentium* lack them (Onyeka, 1982). The former character however differentiates this species from *Cx. pipiens* with certainty. There are no larval or pupal characters which are available for separating *Cx. torrentium* from *Cx. pipiens* (Cranston *et al.*, 1987).

The examination of museum specimens has revealed that this species has been present in Britain since at least the beginning of the century (Service, 1968). However it was probably previously uncommon as it is unlikely that it would have been overlooked in the detailed surveys of Hayling Island and adjacent areas by Marsball and Staley in the early 1920s to mid 1940s. Today it is more abundant than *Cx. pipiens* in many rural and peri-rural parts of southern England, including Hayling Island. This is perhaps due to the large number of water troughs present on farmland, a favoured aquatic site of *Cx. torrentium*, and the diminishing number of ground pools, the preferred habitat of *Cx. pipiens*. On occasions *Cx. torrentium* has been reported from water-filled tree holes.

Fig. 1. Map and summary of records held by the British Mosquito Recording Scheme for *Cx. torrentium*. The most recent records take precedence on the map.

Fig. 2. Map and summary of records held by the British Mosquito Recording Scheme for *Cx. pipiens s.s.* The most recent records take precedence on the map, whereas Marshall's data receive priority in the life history calendar.

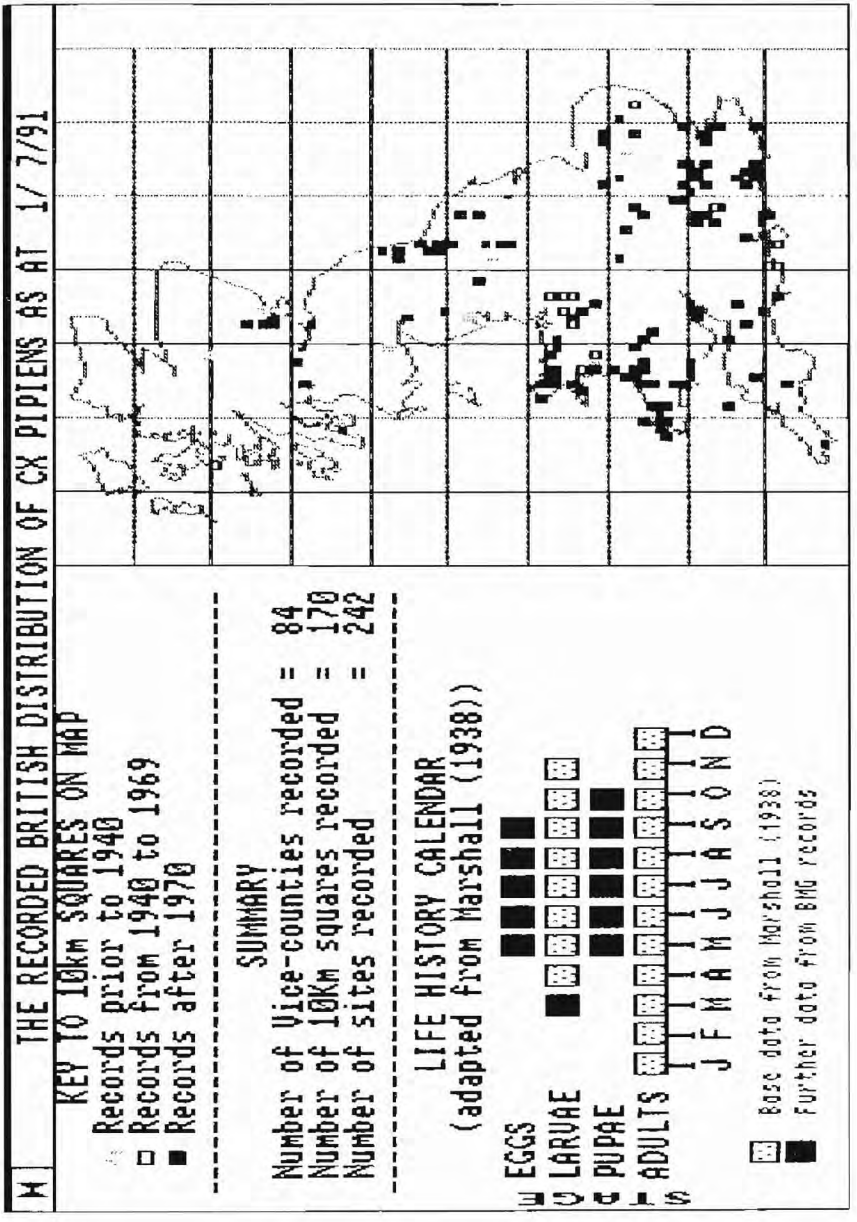


Fig. 3. Map and summary of records held by the British Mosquito Recording Scheme for *Cx. pipiens s.l.* i.e. specimens identified as just *Culex pipiens* or *Cx. pipiens s.s.* Records of the form *molestus* and *Cx. torrentium* are not included. The most recent records take precedence on the map, whereas Marshall's data receive priority in the life history calendar.

Fig. 4. Map and summary of records held by the British Mosquito Recording Scheme for *Cx. pipiens* form *molestus*. The most recent records take precedence on the map, whereas Marshall's data receive priority in the life history calendar.

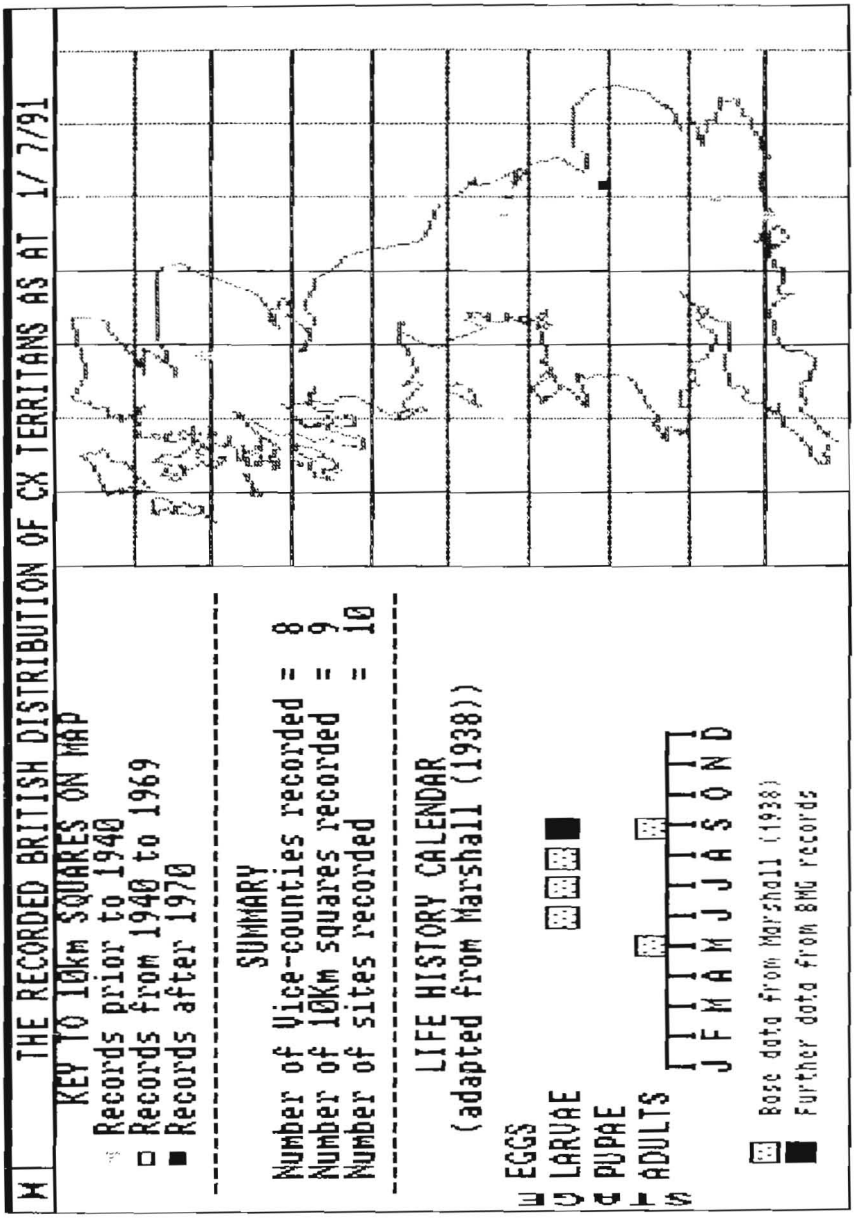


Fig. 5. Map and summary of records held by the British Mosquito Recording Scheme for *Cx. territans*. The most recent records take precedence on the map, whereas Marshall's data receive priority in the life history calendar.

Fig. 6. Map and summary of records held by the British Mosquito Recording Scheme for *Cx. modestus*. The most recent records take precedence on the map, whereas Marshall's data receive priority in the life history calendar.

Fig 7. Map and summary of records held by the British Mosquito Recording Scheme for all mosquito species. The most recent records take precedence on the map.

Adults do not appear to enter houses and females feed exclusively on birds. As with *Cx. pipiens* the female is the overwintering stage, but the hibernation sites are not the same as those of *Cx. pipiens* and are at present unknown. In addition to England, this species has been reported from Scotland. There are, at present, no records from Wales and Ireland.

Culex pipiens (typical and molestus forms) (Figs. 2-4)

The *molestus* form of *Cx. pipiens*, also known as the autogenous form, was unknown in Britain until 1934 when it was discovered in Hayling Island (Marshall and Staley, 1935). All records before that date are therefore imprecise.

Marshall (1938) states "*C. pipiens* is so common in Britain that a compilation of its locality records would be of no scientific interest". We do not believe that this is strictly true as we can find no records from areas such as the Scottish Highlands, the north Yorkshire Moors, Exmoor and the Brecon Beacons which are exposed upland moorlands and appear to be devoid of mosquito species including *Cx. pipiens*. This is despite the presence of water in the form of bogs and drinking containers for livestock. However, midges and blackflies thrive in these areas. It is surprising that we have received so few records of what is, supposedly, a very common species. Is this an artefact produced by collectors not considering records of *Cx. pipiens* worthy of submission or is this species less widespread than in former years? Only continued study will tell.

As *Cx. pipiens* exists in Britain in two physiological forms, it is often impossible to be precise regarding identification and most records can be given only as *Cx. pipiens sensu lato*. However, in the absence of evidence that a specimen is the *molestus* form it is usual to assume that it is the *typical* form. The characteristics which may be used to distinguish the two forms are:

The *molestus* form is autogenous (able to lay an egg batch without requiring a blood meal), stenogamous (able to mate in enclosed spaces), has subterranean aquatic sites, feeds on the blood of humans and is active throughout the year.

The *typical* form is anautogenous, eurygamous, uses hyperterranean aquatic sites, feeds on birds and hibernates in the winter.

Marshall (1938) tabulates a number of morphological distinctions between larval and adult stages of the two forms, but these are now considered to be unreliable.

Culex territans (Fig. 5)

On re-examining the available British specimens of the subgenus *Neoculex*, Mattingly (1953) concluded that the material had been wrongly assigned to *apicalis* Adams and should be named *territans* Walker.

Although there are few records of *Cx. territans* from Britain, they are widespread, ranging from the south coast of England to Scotland. As in other members of the genus *Culex*, egg rafts are produced, but in this species they are laid above the water line and larvae enter the water on hatching. Little is known of the ecology of this species in Britain but the main aquatic habitats are probably small, permanent collections of ground water with abundant vegetation (Gutsevich *et al.*, 1971), although container water may be used (Cranston *et al.*,

1987).Amphibians and reptiles appear to be the main food source of *Cx. territans* but there are records of feeding on birds and mammals including man.

Adults of *Cx. territans* may be distinguished from other British *Culex* by their pale abdominal bands which are located on the hind border of the segments, while larvae are characterised by their very long siphons. The only other member of the subgenus *Neoculex* which may possibly be encountered in Britain is *Cx. hortensis* Ficalbi which is present in north-western France (Moussiegt, 1985).

Culex modestus (Fig. 6)

This species was first recorded in Britain in July 1944 when a female was captured at Emsworth on the mainland north of Hayling Island. Soon after, a second female was discovered inside a house in Hayling Island and in the following month six larvae were found in a National Fire Service water tank in Portsmouth. The tank was assumed to be the source of the females caught during the previous month. In May 1945, in Hayling Island, another female was found and the following month four larvae were discovered in a small pool of brackish water at Gosport (Marshall, 1945). Almost certainly *Cx. modestus* was introduced from the Mediterranean area where it is common. It has not been recorded in Britain since.

This species is known to bite humans viciously both in woodlands and in houses at any time of day or night.

Adults may be distinguished from other *Culex* species by the absence of pale abdominal bands, while the larvae have 3-5 pairs of ventral siphonal setae which, characteristically, bear numerous branches.

GENERAL COMMENTS

As can be seen from the maps, there appears to be a general bias of distribution to the south-east of Britain, particularly in the more recent data. The reason for this is common to all distribution schemes. When the number of collectors of specimens is small, distribution records demonstrate the locality of the entomologists almost as much as that of the species studied.

Rees and Snow (1990) depict the distribution records for all British mosquitoes and Fig. 7 is an updated version, demonstrating the addition of over 250 site records. From this map it is clear that there is plenty of work ahead in mapping the "barren areas", and the authors will be grateful for all records received for any British mosquito.

ACKNOWLEDGEMENTS

We wish to thank the many collectors who have sent records to the British Mosquito Recording Scheme.

REFERENCES

Cranston, P.S., Ramsdale, C.D., Snow, K.R. and White, G.B. (1987). **Keys to the British mosquitoes (Culicidae).** Freshwater Biological Association Scientific Publications 48. 152 pp.

Gutsevich, A.V., Monchadskii, A.S. and Shtakel'berg, A.A. (1971). **Mosquitoes. Family Culicidae.** Fauna of the USSR. Diptera 3(4). Leningrad. Translated from the Russian (1974). Israel Program for Scientific Translations Limited. iii + 408 pp.
Marshall, J.F. (1938). **The British Mosquitoes.** British Museum (Natural History). London. x + 341 pp.

Marshall, J.F. (1945). Records of *Culex (Barraudius) modestus* Ficalbi (Diptera, Culicidae) obtained in the south of England. **Nature, London** 156, 172-173.

Marshall, J.F. and Staley, J. (1935). Exhibition of 'autogenous' characteristics by a British strain of *Culex pipiens* L. (Diptera, Culicidae). **Nature, London** 135, 34.

Mattingly, P.F. (1951). *Culex (Culex) torrentium* Martini, a mosquito new to Great Britain. **Nature, London** 168, 172.

Mattingly, P.F. (1953). A change in name among the British mosquitoes (Diptera, Culicidae). **Proceedings of the Royal Entomological Society of London** (B) 22, 106-108.

Moussiegt, O. (1985). **Moustiques de France.** Bibliographie et repartition. Inventaires de Faune et Flore 30. Museum Nationale d'Histoire naturelle. Secretariat de la Faune et de Flore, Paris. 174 pp.

Onyeka, J.O.A. (1982). The taxonomic value of pre-alar scales in the identification of *Culex (Culex) pipiens* L. and *Culex (Cx.) torrentium* Martini (Diptera: Culicidae). **Mosquito Systematics** 14, 41-52.

Rees, A.T. and Snow, K.R. (1990). The distribution of the genus *Anopheles* in Britain. **Dipterists Digest** 6, 7-19.

Service, M.W. (1968). The taxonomy and biology of two sympatric sibling species of *Culex, C. pipiens* and *C. torrentium* (Diptera, Culicidae). **Journal of Zoology** 156, 313-323.

Recent records for *Leptopeza borealis* Zett. (Dipt., Empididae)

P. J. Hodge

Collin 1961, (British Flies: Empididae, p. 274) records this species from the British Isles on the strength of a single female taken by J. J. F. X. King at Balmaha, Stirlingshire on 28 May 1910. I swept a single female off tree foliage on the bank of Shooter's Clough (SK 0074) in the Goyt Valley, Cheshire on 26 July 1988. In addition my friend Mr. Roy Crossley has taken the species in three widely separated sites in Yorkshire: bank of R. Wharfe, Otley (SE 24), Mid-west Yorkshire, one male on 24 June 1983; Bransdale (SE 69), North-east Yorkshire, 2 June 1989; Hardcastle Crags, Hebden Bridge (SD 92), South-west Yorkshire, 21 May 1990. The species is evidently established over a wide area of northern Britain, the reason for its not having been recorded previously from England perhaps being due to low population density. I thank Roy Crossley for allowing me to include his records in this note.

P. J. Hodge, 8 Harvard Road, Ringmer, Lewes, East Susses, BN8 5HJ.

Records of some uncommon Dolichopodidae from Devon, Cornwall and Anglesey

Simon Grove and Keith Alexander

As part of an on-going programme of biological survey of National Trust properties, the following Dolichopodidae of note were collected from properties in the above listed counties in 1989 and 1990. Records marked with an asterisk are from counties not listed by Fonseca (1978) for the species in question.

Dolichopus andalusiacus Strobl. *W.Cornwall: cliff-top streams, Zennor Head (SU440385), 22.v.1989, and Chapel Porth (SW693484), 23.v.1990.

Dolichopus signifer Haliday. W.Cornwall: Cliff seepages, Cudden Point (SW549278), 18.v.1989, and Godrevy (SW582427), 17.v.1990. *N.Devon: cliff seepage, Croyde (SS434395), 4.vi.1990. *Anglesey: cliff-top stream, Porth y Bribys (SH294905), 14.viii.1989.

Hypophyllus discipes (Ahrens) *E.Cornwall: flushed woodland, Coombe Valley, Duckpool (SS208113), 6.vii.1989.

Syntormon mikii Strobl. *N.Devon: adjacent to stream flowing from wooded valley onto saltmarsh, Northam (SS460289), 30.v.1990.

Syntormon zelleri (Leow). *N.Devon: flushed woodland, Lyford Gorge (SX503840), 26.v.1990. *S.Devon: flushed pasture, Branscombe (SY119885). 1.viii.1990.

We are grateful to R. Crossley for confirming some of our identifications and for identifying problem specimens.

References

Fonseca, A.C.M.d'A. (1978) Diptera, Dolichopodidae. Handbk. Ident. Br. Insects 9; Part 5.

Stilpon nubila Collin (Dipt., Empididae): a recent British record

P. J. Hodge

Collin (1961, British Flies Vol. 6: Empididae) gives four widely separated British localities for this minute species the most recent of which is for Slough, Bucks in June 1932 by Dr. O. W. Richards. Whilst searching for the carabid beetle *Tachys micros* (Fischer) on a small seepage at the base of the cliffs on the western side of Eype Mouth, Dorset (SY 4491) on 29 May 1990, several specimens of *S. nubila* were discovered running on very fine shingle at the base of a sparse growth of *Phragmites australis* (Cav.). They made little effort to fly and with patience they were secured using a small inverted glass tube. G. H. Verrall took the first British examples of *S. nubila* on 19 and 20 August 1906 at Studland in Dorset therefore my record is the second for the county.

Notable Empididae from Arundel Park, West Sussex.

P.J. Hodge

Arundel Park has long been known for rare coleoptera, particularly species associated with dead wood, but the site is also important for its chalk grassland and wetland habitats. Diptera have been somewhat neglected and have not been studied in great detail. The following list of the more notable Empids is the result of occasional visits over the last four years.

Platypalpus aristatus (Collin)	9. v. 1988, (TQ 0010).
P. aurantiacus (Collin)	9. v. 1988, (TQ 0010 & TQ 0110); 3. v. 1990, (TQ 0010).
P. incertus (Collin)	9. v. 1988, (TQ 0110); 3. v. 1990, (TQ 0010).
P. tonsus (Collin)	9. v. 1988, (TQ 0110).
Bicellaria nigrita Collin	9. v. 1988, (TQ 0010); 5. v. 1991, (TQ 0010).
Euthyneura enermis Becker	9. v. 1988, (TQ 0110), on flowers of *Acer campestre* Linn.
Rhamphomyia micropyga Collin	1. v. 1988, (TQ 0010), one female.
Dryodromia testacea (Rondani)	28. iv. 1989, (TQ 0010); 2/3. v. 1990, (TQ 0010); 21. v. 1990, (TQ 0010).

I am grateful to Peter Chandler for identifying *Euthyneura enermis*.

P.J. Hodge, 8 Harvard Road, Ringmer, Lewes, East Sussex, BN8 5HJ.

The Plant-mining Diptera of the Isle of Coll, Inner Hebrides (V.c.103)

K.P. Bland

The plant-mining diptera of Scotland are very poorly recorded. The following 35 species of plant-mining flies have been recorded from the Isle of Coll in the Inner Hebrides during the last 10 years. In most instances identification is based on reared material. Identifications based entirely on leaf-mines have only been accepted in those instances where scope for error is minimal. The data were derived from 254 collections of plant mines between 1981 and 1990. Unfortunately rearing success was low and only a third of these collections produced dipteran imagines. Four-figure Ordinance Survey grid references are given for all localities and names of hymenopterous parasites are included where reared. An asterisk (*) before a species indicated that no previous published record for Scotland appears to exist.

CHIRONOMIDAE

Cricotopus tricinctus (Meigen, 1818) - Occupied workings on the underside of floating leaves of *Sparganium minimum* Wallr. at Grishipoll (NM1859) on 23.viii.90 (emerged 29.viii.90). Mine and biology described for first time from these specimens (Bland & Rotheray, 1992).

DROSOPHILIDAE

Scaptomyza flava (Fallén, 1823) - Occupied leaf-mines in *Cochlearia officinalis* L. on Beinn Feall (NM1455) on 9.vii.87 (emerged 25.vi i.87). Similar leaf-mines also seen on Eilean Mor (NM2764), Gunna (NM0951) and at A'Chròic (NM2262). Leaf-mines in *Nasturtium officinale* R.Br. at Gallanach (NM2160) on 13.vii.88 (emerged 9.viii.88); parasitized by *Chrysocharis melaenis* (Walker, 1839) [EULOPHIDAE].
S. graminum (Fallén, 1823) - Occupied leaf-mines in *Lychnis flos-cuculi* L. at Port an Drùine (NM1653) on 14.vii.88 (emerged 6.viii.88) and in *Anthyllis vulneraria* L. at Cornaigbeg (NM2362) on 19.vii.85 (emerged 7.viii.85). Similar mines in *Anthyllis* seen in July at Sorisdale (NM2763), Ballyhaugh (NM1757) and Gunna (NM1051); parasitized by *Halticoptera aenea* (Walker, 1833) [PTEROMALIDAE].
S. griseola Zetterstedt, 1847 - Occnpied mines in the floating leaves of *Potamogeton polygonifolius* Pourr. at Loch Fada (NM1958) on 19.vii.88 (emerged 6.viii.88). Similar occupied mines, probably referable to this species but not reared, in *Potamogeton* spp. at Loch Ghillecaluim (NM2561), A'Chròic (NM2262), Loch Urbhaig (NM2357) and Loch nan Cinneachan (NM1856).
Other drosophilid leaf-mines were found in *Cerastium fontanum* Baumg. and *Stellaria media* (L.) Vill. but died in the pupal stage.

AGROMYZIDAE

Agromyza alnibetulae Hendel, 1931 - Vacated leaf-mines in *Betula pendula* Roth., ascribable to this species, at Arinagour (NM2157, 2257) on 13 & 20.vii.88.
A. alnivora Spencer, 1969 - Occupied leaf-mines in *Alnus glutinosa* (L.) Gaertn. at Arinagour (NM2157, 2257) on 24.ix.86 (emerged 10-16.vi.87) and 24.viii.90 (emerged 22.v.-16.vi.91).
A. anthracina Meigen, 1830 - Occupied leaf-mines in *Urtica dioica* L. at Arinagour (NM2257) on 12.vii.88, but not reared.

A. nana Meigen, 1830 - Occupied mines in *Trifolium pratense* L. at Gallanach (NM2160) on 12.vii.88 (emerged 19.viii.88). Similar mines in *T. pratense* were seen in July at Arinagour (NM2256), Sorisdale (NM2763), Cornaigbeg (NM2362) and Meall nan Uan (NM2661). Occupied leaf-mines in *T. repens* L. at Ballyhaugh (NM1757) on 15.vii.88 also produced this species (emerged 26.viii.88). Similar mines in *T. repens* were seen in July at Crossapol Bay (NM1453), Beinn Feall (NM1454), Beinn Hogh (NM1758), Arinagour (NM2257), Caolas-an-Eilean (NM2155) and Meall nan Uan (NM2661).

**Paraphytomyza tremulae* (Hering, 1955) - Occupied mines on the underside of the leaves of *Populus tremula* L. at Arithluic (NM2155) on 9.viii.83 (emerged 10.iv.84), 24.vii.88 (emerged 22.v.89) and 22.viii.90 (emerged 19-21.v.91). This species does not appear to have been previously recorded from Scotland but is widespread also occurring in Lanarkshire (V.c.77), Peebleshire (V.c.78), Stirlingshire (V.c.86), Perthshire (V.c.88 & 89) and Inverness-shire (V.c.96).

Phytomyza affinis Fallén, 1823 - Reared from seedheads of *Euphrasia* sp. from Uig (NM1645) on 23.viii.90 (emerged 1.viii.91) and from Cornaigbeg (NM2363) on 24.viii.90 (emerged 26.vii.91). Pupation was outwith the seedheads.

P. angelicae Kaltenbach, 1874 - Occupied mines in *Angelica sylvestris* L. at Ballyhaugh (NM1757) on 6.viii.83 (emerged 29-30.viii.83), at Cornaigbeg (NM2362) on 16.viii.90 (emerged 17-20.iv.91) and at Meall nan Uan (NM2661) on 31.vii.84 (date of emergence not recorded). Similar mines also seen in all parts of the island from Eilean Mòr (NM2764) to west end of Gunna (NM0951).

P. calthivora Hendel, 1934 - Leaf-mines in *Caltha palustris* L. characteristic of this species at Arivirig (NM2354) on 20.viii.90 but already vacated.

P. calthophila Hendel, 1931 - Occupied leaf-mines in *Caltha palustris* L. at Ballyhaugh (NM1758) on 13.vii.81 (emerged 3.viii.81) and at Gallanach (NM2160) on 12.vii.88 (emerged 8.viii.88). Mines also seen in July at Struan (NM2563), Cornaigbeg (NM2362) and on Gunna (NM1051).

P. chaerophylli Kaltenbach, 1856 - Occupied leaf-mines in *Anthriscus sylvaticum* (L.) Hoffm. ascribable to this species at Arinagour (NM2256) on 14.vii.87, but no imagines reared; parasitized by *Glyphognathos flammeus* (Delucchi, 1953) [PTEROMALIDAE].

P. heracleana Hering, 1937 - Occupied leaf-mines in *Heracleum sphondylium* L. at Toraston (NM2261) on 31.vii.83 (emerged 29.viii.83).

P. lonicerae Robineau-Desvoidy, 1851 - Occupied leaf-mines in *Lonicera periclymenum* L. in Loch Fada - Meall nan Uan area (NM2561, 2660, 2661, 2662) on 15.vii.81 (emerged 19-25.vii.81), 10.viii.83 (emerged 15.viii.83), 31.vii.84 (emerged 5.viii.84) and 2.viii.84 (emerged 5.viii.84).

P. marginella Fallén, 1823 - Occupied leaf-mines in *Senecio aquaticus* Hill at Arinagour (NM2257) on 20.vii.88 (emerged 17-25.viii.88).

P. matricariae Hendel, 1920 - Occupied leaf-mines in *Achillea millefolium* L. at Breachacha (NM1554) on 2.viii.84 (emerged 24-29.viii.84).

P. notata Meigen, 1830 - A widespread species on the island; occupied mines in *Ranunculus repens* L. at Sorisdale (NM2763) on 12.vii.81 (emerged 1-2.viii.81), at A'Chròic (NM2262) on 14.vii.81 (emerged 8.viii.81), at Toraston (NM2261) on 2.viii.83 (emerged 29.viii.83), at Meall nan Muc (NM2357) on 17.vii.81 (emerged 4-8.viii.81) and at Arinagour (NM2257) on 30.vii.84 (emergence date not recorded), and also mines in *R. ficaria* L.at A'Chròic (NM2262) on 14.vii.81 (emerged 3.viii.81); parasitized by *Dacnusa confinis* Ruthe, 1859 [BRACONIDAE].

P. obscurella Fallén, 1923 - Occupied leaf-mines in *Aegopodium podagraria* L. at Arinagour (NM2256) on 8.vii.87 (emerged 8.viii.87) and 17.viii.90 (emerged 9.x.90); parasitized by *Glyphognathus flammeus* (Delucchi, 1953) [PTEROMALIDAE].

P. periclymeni de Meijere, 1924 - Occupied leaf-mines in *Lonicera periclymenum* L. in Caolas-an-Eilean area (NM2153) on 22.viii.90 (emerged 25.viii.90 & 1-2.v.91), at Arivirig

(NM2354) on 20.viii.90 (emerged v.91) and in the Loch Fada - Meall nan Uan area (NM2561, 2660) on 15.vii.81 (emerged 2.viii.81), 31.vii.84 (emerged 23.viii.84) and on 2.viii.84 (emerged 23.viii.84); parasitized by *Cyrtogaster vulgaris* Walker, 1833 [PTEROMALIDAE] and *Miscogaster maculata* Walker, 1833 [PTEROMALIDAE].

P. plantaginis Robineau-Desvoidy, 1851 - Occupied leaf-mines in *Plantago lanceolata* L. ascribable to this species at Cornaigbeg (NM2362) on 9.vii.88 but no imagines reared.

P. primulae Goureau, 1851 - Occupied leaf-mines in *Primula vulgaris* Huds. at Meall nan Uan (NM2661) on 15.vii.82 (emerged 30.vii.82) and at Port an Dùine (NM1653) on 14.vii.88 (emerged 30.vii.88). Vacated mines were also seen at Sorisdale (NM2663) on 28.vii.84 and on Eilean Mòr (NM2764) on 28.vii.88.

P. ramosa Hendel, 1923 - early occupied mines originating in midrib of leaves of *Succisa pratensis* Moench., an ascribable to this species, at Creag nan Clamhan (NM2362) on 21.vii.88. Larva died without pupating.

P. ranunculi (Schrank, 1803) - Occupied leaf-mines in *Ranunculus repens* L. at Toraston (NM2261) on 2.viii.83 (emerged 29.viii.83); also occupied mines in *R. flammula* L. at Ballyhaugh (NM1758) on 6.viii.83 (emerged 29.viii.83).

**P. ?rostrata* Hering, 1934 - A single female fly, that keyed out to this species in Spencer (1976), emerged on 25.v.86 from seedheads of *Pedicularis sylvatica* L. collected at Arinagour (NM2256) on 23.vii.85. A single mine, in the receptacle of *P. sylvatica*, that could possibly be referable to this species, was found at the same locality on 10.vii.82 but nothing was reared. *Phytomyza rostrata* does not appear to have been previously recorded from Britain, although known from Sweden, Denmark and Germany (Spencer, 1976). However, the identity of the present specimen must remain in doubt until a male is found.

P. spondylii Robineau-Desvoidy, 1851 - Occupied leaf-mines in *Heracleum sphondylium* L. at Cornaigbeg (NM2362) on 26.vii.84 (emerged 21.vi.85) and 16.viii.90 (emerged 1-19.vi.91).

**P. succisae* Hering, 1922 - Early leaf-mines in *Succisa pratensis* Moench. ascribable to this species at Meall nan Uan (NM2660) on 31.vii.84, on Eilean Mòr (NM2764) on 28.vii.88 and at Arivirig (NM2354) on 20.viii.90 - in all cases the larva died before completing the mine. The larvae of both *succisae* and *ramosa* feed up very slowly; a single leaf cannot be maintained in a fresh condition long enough for the larva to complete the mine - the whole plant must be taken.

P. syngenesiae (Hardy, 1849) - Occupied leaf-mines in *Arctium pubens* Bab. at Toraston (NM2261) on 31.vii.83 (emerged 9.viii.83) and in *Leontodon autumnalis* L. at Beinn Feall (NM1454) on 4.viii.83 (emerged 15.viii.83), at Ballyhaugh (NM1757) on 6.viii.83 (emerged 15.viii.83) and at Grishipoll (NM1959) on 29.vii.84 (emerged 6-9.viii.84).

P. tenella Meigen, 1830 - Seedheads of *Pedicularis sylvatica* L. from near Totronald (NM1655) on 23.viii.90 produced this species between 24.v.-20.vi.91.

P. varipes Macquart, 1835 - This species emerged from seedheads of *Rhinanthus minor* L. from Cornaigbeg (NM2362, 2363) on 19.vii.85 (emerged 4.vii.86) and 24.viii.90 (emerged 6.vii.91).

P. virgaureae Hering, 1926 - Occupied leaf-mines in *Solidago virgaurea* L. at Meall nan Uan (NM2662) on 10.viii.83 (emerged 29.viii.83), at Arivirig (NM2354) on 20.viii.90 (emerged 17.ix.90 & 16-20.iv.91) and at Caolas-an-Eilean (NM2254) on 22.viii.90 (emerged 17.ix.90 & 16.iv.91).

Cerodontha ireos (Goureau, 1851) - Occupied leaf-mines in *Iris pseudacorus* L. at Arinagour (NM2257) on 13.vii.81 (emerged 31.vii.-7.viii.81) and 16.viii.90 (emerged 24.v.91) and at Ballyhaugh (NM1758) on 16.viii.90 (emerged 19.v.91). The mines are widespread throughout the island from Eilean Mòr (NM2764) to Port an Dùine (NM1653); parasitized by *Chrysocharis polyzo* (Walker, 1839) [EULOPHIDAE].

Other agromyzid leaf-mines were found in *Filipendula ulmaria* (L.) Maxim., *Ligustrum scoticum* L., *Bellis perennis* L., *Senecio jacobaea* L. (parasitized by *Dacnusa areolaris* (Nees,

1811) [BRACONIDAE] & *Cyrtogaster vulgaris* (Walker, 1833) [PTEROMALIDAE]), *Cirsium vulgare* (Savi) Ten. (parasitized by *Miscogaster maculata* Walker, 1833 [PTEROMALIDAE]), *C. palustre* (L.) Scop., *C. arvense* (L.) Scop., *Centaurea nigra* L., *Taraxacum* sp., *Sonchus arvensis* L., *Holcus mollis* L. (parasitized by *Dacnusa areolaris* (Nees, 1811) [BRACONIDAE]) and *H. lanatus* L. but were not successfully reared.

TEPHRITIDAE

Euleia heraclei (Linnaeus, 1758) - Occupied blotch-mines in leaves of *Heracleum sphondylium* L. at Uig (NM1654) on 23.viii.90 (emerged 2.vi.91).

ANTHOMYIIDAE

Pegomya bicolor (Hoffmannsegg in Wiedemann, 1817) - Occupied leaf-mines in *Rumex longifolius* DC. at Sorisdale (NM2763) on 12.vii.81 (emerged 6-7.viii.81), in *R. acetosa* L. at A'Chròic (NM2262) on 14.vii.81 (emerged 8-9.viii.81) and in *R. obtusifolius* L. on Beinn Feall (NM1454) on 23.vii.88 (emerged 24.viii.-15.ix.88). Similar mines in *Rumex* frequent over the whole island, including Gunna.
P. hyoscyami (Panzer, 1809) - Occupied leaf-mines in *Silene maritima* (With.) A.& D. Love on Beinn Feall (NM1454) on 4.viii.83 (emerged 6-15.viii.83); parasitized by *Cyrtogaster vulgaris* Walker, 1833 [PTEROMALIDAE].
Other anthomyiid leaf-mines were found in *Atriplex* sp. but were not reared.

The lists of plants, in which mines were found but no diptera were reared, are included to indicate that the present list of plant-mining flies is very preliminary. The Isle of Coll, like most other Hebridean islands, would repay more exhaustive and systematic study.

Acknowledgements

I am very grateful to Mr. J.M. Nelson and Dr. G.E. Rotheray for assistance with identification of dipterans; and to Dr. R.R. Askew, Dr. H.C.J. Godfray and Dr. M.R. Shaw for identifying the parasites.

References

Bland, K.P. & Rotheray, G.E. (1992) The distribution and biology of two leaf-mining species of *Cricotopus* (Diptera; Chironomidae) in Scotland. **Dipterist's Digest** (submitted).

Spencer, K.A. (1976) The Agromyzidae (Diptera) of Fennoscandia and Denmark. **Fauna Entomologica scandinavica 5, part 2**, 305-606.

K.P. Bland 35 Charterhall Road, Edinburgh, EH9 3HS

Tipula fascipennis Meigen in Scotland

E.G. Hancock

This species of cranefly is one of the first I found on moving to Scotland and has proved to be fairly widespread. This is contrary to the distribution given in Coe (1950), Westmorland southwards, that was based necessarily on data on specimens in the British Museum (Natural History) collections at the time. There have been several scattered records from Scotland published before and since then. These have been derived from the excellent bibliography maintained at the Royal Museum of Scotland, Edinburgh, the Scottish Insect Record Index (SIRI) (Shaw, 1987). They are collated below together with my own observations, specimens which are preserved in Glasgow Museum or other collections where stated.

Solway area, common in woods and shady places (Brown & Douglas, 1949)
(Specimens in the Royal Museum of Scotland from the Brown collection are all from two localities, Tyron and Closeburn, in Dumfriesshire, post-dating his article)
Newmilns, Ayrshire, 8 July 1984
Glasgow, Cadder, rare (Henderson, 1901)
(A female specimen in Hunterian Museum, Glasgow University, is dated 10 August 1900.)
Glasgow, Pollok Park, 19 May 1990
Paisley Moss, Renfrewshire, 10 July 1985
Johnstone Castle, Renfrewshire, 27 June 1926 (Henderson collection, Hunterian Museum)
Ardmore, Dumbartonshire, on two occasions in suction traps (Dobson, 1973)
Luss Glen, Dumbartonshire 5 July 1902 (Henderson collection, Hunterian Museum)
Comrie, Perthshire, 9 July 1983
Old Aberdeen, 1872-5 (Armston, 1884)
Shetland, June 1890 (Dale, 1893)

For the sake of brevity the above ignores repetitious publication of the same records (all of which are faithfully entered in SIRI). An interesting reference extracted from SIRI is Walker (1856) who gives Scotland as part of the known distribution at that time.

References

Armston, W. (1884) List of Diptera taken in the north of Scotland chiefly in the province of 'Dee'. *Scottish Naturalist*, 7; 9-19

Brown, E.S. & Douglas, A.B. (1949) A list of the Tipulinae (Diptera, Nematocera) of the Solway area with some notes on the habitats of the adults. *Scottish Naturalist*, 61; 156-168

Coe, R.L. (1950) Tipulidae. *Royal Entomological Society handbook for the identification of British insects*, 9;14

Dale, C.W. (1893) Shetland Diptera. *Ent. mon. Mag.*, 29; 93

Dobson, R. (1973) Scottish long-palped craneflies (Diptera; Tipulidae); species taken at Threave Gardens (Kirkcudbrightshire) and Ardmore Point (Dunbartonshire). *Glasgow Naturalist*, 19; 45-54

Henderson, R. (1901) Tipulidae in the west of Scotland. *Ent. mon. Mag.*, 37; 113-115

Shaw, M.R. (1987) Scottish Insect Records. *Ent. Record.*, 99; 37

Walker, F. (1856) *Insecta Britannica Diptera*, 3; 329

Parasyrphus nigritarsis (Zetterstedt) and some other scarce flies recorded from Malham Tarn, N.W. Yorkshire.

Steven Falk

A single female specimen of *P. nigritarsis* captured on 2 July 1983 at the aforementioned site was recently discovered in my collection misidentified as *Eupeodes latifasciatus* (Macquart), to which it bears a very strong superficial resemblance (especially on the basis of abdominal markings). The dark tarsi and extensively darkened frons were amongst the more obvious features that alerted me of my carelessness. This mistake serves to demonstrate the risk of 'jizzing' apparently common and easily recognised species, especially where this might discourage the retention of some voucher material (which fortunately in this case I kept!) The specimen exhibited a black-rimmed mouthedge as noted in Irish material by Speight (1986, **Ir. Nat. J.**, 22 (4) : 149-152).

This record appears to represent the first for England, though it is by no means unexpected. For many years it was only known in Britain from two Scottish specimens, but since 1985 it has been discovered at sites in both Ireland (Speight, 1986) and Wales (**Dyfed Invertebrate Group Newsletter**, Nos. 9, 12, 16 and 20). The circumstances surrounding its capture are not recalled. Other noteworthy records from this magnificent Pennine site include the following:

Oxycera pygmaea (Fallen) - 5.7.83 (a female from the calcareous seepage at N.E. corner of the Tarn)
Hybomitra montana (Meigen) - 15.7.79, 9.7.83 (in numbers on the Fen)
Melangyna guttata (Fallen) - 13.7.79 (a male on *Aegopodium* flowers beside Field Centre)
Scaeva selenitica (Meigen) - 14.7.79 (a female visiting *Silene* flowers in woodland behind Field Centre)
Cheilosia pubera (Zetterstedt) - 3.7.83
Eristalis rupium Fabricius - 2.9.77, 12-15.7.79, 9-10.7.83 (usually numerous on the Fen)
Criorhina berberina (Fabricius) - 5.7.83 (a female exploring the base of a wooden fence post beside the Field Centre)
Themira leachi (Meigen) - 1.7.83
Phaonia zugmayeriae Schnabl - 2.7.83

Records for *Platycheirus ramsarensis* Goeldlin, Maibach and Speight and *Ectinocera borealis* (Zetterstedt) have been published elsewhere in this journal.

Steven Falk, Herbert Art Gallery and Museum, Jordan Well, Coventry CV1 5QP.

Three Flies New to Yorkshire in 1991.

John D. Coldwell

Collecting in the Barnsley area during 1991 produced three additions to the County list, all of which represent significant northward extensions to their known range in Britain.

Neoascia interrupta (Meigen, 1822) (Dipt.:Syrphidae)
A female of this small but distinctive species was swept from emergent vegetation fringing a small pond at Gypsy Marsh (SE 4102), a local authority reserve five miles south-east of Barnsley, on 23rd May. A number of specimens were recorded on subsequent visits to the site, including one example of the less-obvious male.

This hoverfly was added to the British list only recently (Falk et. al., 1981) its recognitions largely based on material from south-east England. It has since been found near Coventry (Wright, 1990) and in Nottinghamshire (D. Whiteley, pers. comm.). Doubtless further Yorkshire sites await discovery.

Acanthiophilus helianthi (Rossi, 1794) (Dipt.: Tephritidae)
A female example of this rare Tephritid was swept from lakeside vegetation by the lower lake at Bretton Park (SE 2812), a Yorkshire Wildlife Trust reserve, on 13th July.

White (1988) considers the species very rare with recent records confined to a few southern counties. This present discovery therefore extends its known distribution dramatically.

The translucent wings with faint markings towards the apex and generally pale greyish-green cast to the body give this species a somewhat teneral appearance in life, a characteristic, perhaps, collectors should be aware of.

Sciapus contristans (Wiedemann, 1877) (Dipt.: Dolichopodidae)
A male specimen of this scarce fly was swept from the edge of a rankly vegetated meadow adjacent to an area of well-drained heath-like habitat at Houghton Common (SE 4308), eight miles east of Barnsley, on 24th July. The specimen runs to *S.loewi* in Assis-Fonseca (1978) but a recent revision by Meuffels and Grootaert (1990) recognises four species within the *Sciapus contristans* complex, one of which, *Sciapus contristans* (sensu stricto) matches the Barnsley specimen precisely. *S.loewi* is regarded as a synonym of *S. contristans*.

Assis-Fonseca considers '*S.loewi*' uncommon, occurring no further north than Norfolk. The Belgian authors find it difficult to ascribe a preferred biotope for this species.

Acknowledgements
I should like to thank Peter Skidmore and Roy Crossley for checking their Yorkshire Diptera files and Derek Whiteley for recent records of *N.interrupta*.

References

ASSIS FONSECA, E.C.M. (1978) Diptera Orthorrhapha Brachycera Dolichopodidae. **Handbk.Ident.Br.Insects. Vol.IX, Part 5.**

FALK, S.J., SMITH, D.A. & STUBBS, A.E. (1981) Neoascia interrupta (Meigen, 1822) (Diptera:Syrphidae) New to Britain. **Proc.Trans.Br.Ent.Nat.Hist.Soc. 14: 12-14.**

MEUFFELS, H.J.G. & GROOTAERT, P. (1990) The identity of Sciapus contristans (Wiedemann, 1817) (Diptera:Dolichopodidae), and a revision of the species group of its relatives. **Bulletin de l'institut Royal des sciences naturelles de Belgique, Entomologie, 60: 161-178.**

WHITE, I.M. (1988) Tephritid Flies.Diptera: Tephritidae. **Handbk.Ident.Br.Insects. Vol.10, Part 5a.**

WRIGHT, A. (1990) Psilota anthracina Meigen and other scarce Diptera in Warwickshire (VC 38). **Br.J.Ent.Nat.Hist., 3: 103-105.**

Editorial Postscript

This issue marks the end of the first phase in the development of **Dipterists Digest**, as I hand over to 'guest editors' Phil Withers and Anthony Bainbridge; and new chief editor Graham Rotheray who will tackle future editions.

It seems like only yesterday since I first tested the water by announcing my plans in November 1987, and I published issue No.1 exactly a year later. Ten issues in four years (and five more in the pipeline) certainly exceeded my targets; and my original aims have been more than fulfilled.

I am aware that the speed of publication has often resulted in a journal with a somewhat rough and ready quality at times. I do apologise, but it was never my intention to produce an academic glossy. A budget priced user-friendly journal devoted to diptera, with a rapid turnover of papers was, and still is what many people demand.

Having said that, the new division of labour will lead to higher standards of publication, editing and production, whilst continuing to welcome novice authors who might be a little hesitant about publishing their work. Go for it with **Dipterists Digest**!

I am particularly pleased to have had the opportunity to publish new identification keys to British and European flies - test keys, provisional keys and keys that will last some years. I will urge authors and editors to continue this important aspect of **Dipterists Digest**. Hands up,those who frequently take their copies off the shelf to key out specimens!

At this point I would like to thank you for all your letters of support. When the problems of running a journal single-handed seemed insurmountable, it was your good wishes which kept me going.

Now that my editorial work is done, I am excited about the next phase in the development of **Dipterists Digest**. I hope that you will continue to support the new editors. In the meantime I shall concentrate on production, sponsorship and marketing with new enthusiasm.

Derek Whiteley May 1992

Publishers Note

We hope the re-use of the colour cover does not cause too much confusion. Colour printing is expensive and we have to make the most of sponsorship. We do not intend to use the same cover more than twice in future issues.

Derek Whiteley, 17 Rustlings Road, Sheffield, S11 7AA

Institute of Terrestrial Ecology
Natural Environment Research Council

Provisional atlas of the Larger Brachycera (Diptera) of Britain and Ireland

by

C M Drake (English Nature)

Published in 1991 by
Biological Records Centre
Institute of Terrestrial Ecology
Monks Wood Experimental Station
ABBOTS RIPTON, Huntingdon, PE17 2LS

The Larger Brachycera include some of the most spectacular flies found in Europe, many of which are uncommon in Britain and Ireland. The *Provisional atlas of Larger Brachycera* covers all species in the following families: Stratiomyidae, Xylomiidae, Xylophagidae, Rhagionidae, Tabanidae, Asilidae, Therevidae, Scenopinidae, Acroceridae, Bombyliidae.

The *Atlas* includes a brief account of the occurrence and habitat of each species, together with maps of over 60 species chosen as examples of the types of distribution known for the British and Irish species. Also included is a table of the vice-county occurrence of species.

ISBN 1 870393 14 7 Price £5.00, including postage & packing

ORDER FORM Please complete in BLOCK CAPITALS

Please send me ___ copy(ies) of the booklet: *Provisional atlas of the Larger Brachycera (Diptera) of Britain and Ireland*

Name_____

Address_____

_____

_____ Postcode_____

I enclose a cheque for £_____ made payable to ITE

To: Publication Sales, Institute of Terrestrial Ecology
Merlewood Research Station, Grange-over-Sands, Cumbria, LA11 6JU

DISPLAY SYSTEM

For display/storage of entomological specimens and other valuable items such as coins, medals, stamps, etc.

Cover sponsored by

Stephenson Blake

BROOMBANK ROAD, CHESTERFIELD S41 9QJ
Tel. 0246 451592
Telex: 547613 SHEAF G