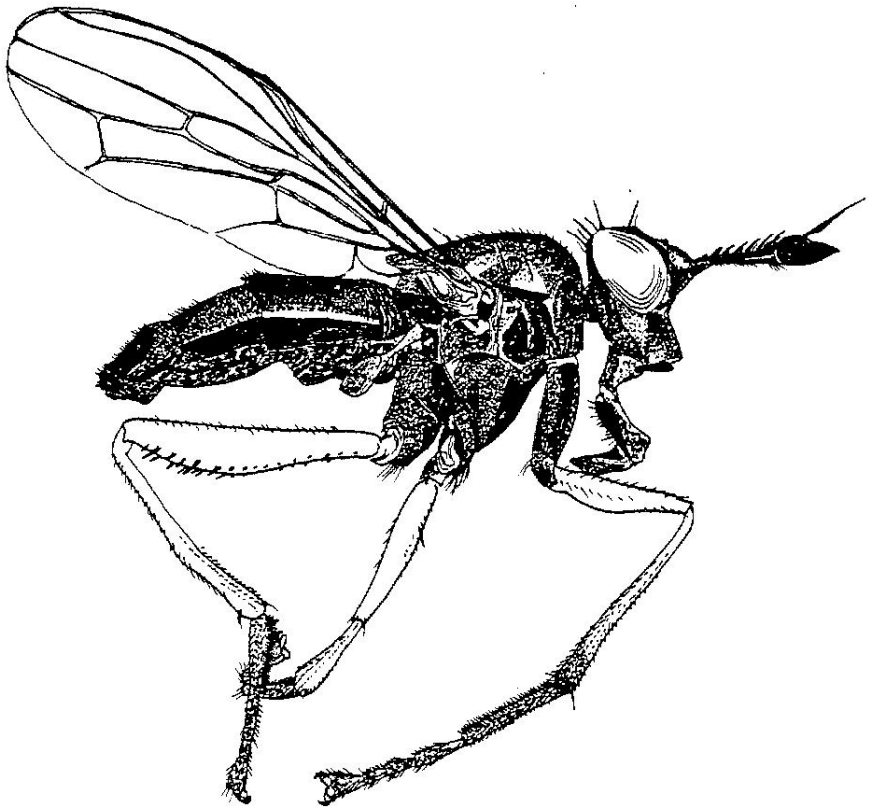
Sciomyzidae Recording Scheme

Newsletter 2 **Oct 1986**



Preliminary Atlas

S G Ball & I F G McLean

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Cover illustration: Sepedon sphegea by Stuart Ball

A Preliminary Atlas of the Sciomyzidae of Great Britain

Stuart Ball & Ian McLean

Introduction

The Sciomyzidae Recording Scheme was the first Dipterous scheme registered with the Biological Records Centre at Monks Wood and quickly resulted in the publication of a table of county records by Stephenson and Knutson in 1970 (EMM 106:16-21). Unfortunately, the information they collected was restricted to a list of counties for each species with no indication of the source, site, date of capture or other details. When the scheme was passed on to Ian McLean in 1979 it started collecting fully detailed records. The first newsletter, in 1983, dealt with nomenclature changes and identification difficulties. Since then, although a steady influx of records has been received, pressure of work has prevented Ian McLean from organising and analysing them.

This atlas was prompted by Stuart Ball who developed a computer program for organising species records (Biological Record Processor) and then in 1986 wrote a further program which could map them using a dot-matrix printer. Starting in mid-August, the records were collated using Stuart Ball's Apple IIe computer and maps were produced on an Epson RX80 printer.

It is hoped that these very preliminary maps will encourage entomologists both to contribute their existing records and to get out into the field and fill in some of the gaps.

The recording scheme does cover Ireland and a limited number of Irish records have been submitted, but they were excluded on this occasion.

Sources of information

1. Records submitted to the scheme and held by Ian McLean. The bulk of these were from P J Chandler, J H Cole, C M Drake, A G Irwin, J Ismay, I Perry, M N Pugh, D A Smith and P Withers.

2. Data extracted from major collections by Ian McLean including those of the British Museum (NH) (partly abstracted), the Hope Department (Verrall-Collin Collection and the Hope General Collection), the Castle Museum, Norwich and the National Museum of Wales (partly abstracted).

3. Information from entomologists employed by the Nature Conservancy Council in Peterborough, especially the very extensive files of A E Stubbs, but also from S G Ball, J Bratton, S J Falk, P Kirby and D A Sheppard. Also records from NCC surveys such as those of the Somerset and Gwent Levels were extracted.

4. Information contributed to the NCC's Invertebrate Site Register and the National Species Review of Diptera being carried out by S J Falk.

5. A limited literature search. This was restricted to sources available in the NCC library in Peterborough and therefore did not include most Scottish and Welsh journals or many local publications.

6. P Skidmore and W A Ely were approached and allowed us access to their records and P Skidmore very kindly undertook to extract the records from the Yorkshire Naturalist's Union Diptera cards.

In the limited time available to assemble, enter and check these records there was not time for a more thorough search, but these sources have provided a sufficiently wide geographical spread to allow the gross features of distribution to become clear.

Note: through the efforts of S J Falk and his National Species Review of Diptera, the rarer species have been investigated very much more thoroughly than the commoner ones and therefore appear more frequent than is really justified.

Results

A total of 6703 records of the 64 species were accumulated (this includes some duplication where the same record has been received from more than one source). Table 1 summarises the records showing the number for each species and the number of squares and vice-counties in which it has been recorded. The table is ordered by the number of squares in which the species has been recorded so the most widespread species are at the top and the rarest at the bottom. It also shows the status currently given to the species by the Invertebrate Site Register and indicates probable changes suggested by S J Falk.

The Maps

The same pair of symbols are used on all maps (except for Map 2 - number of species per square). These are a closed diamond to represent 10Km squares containing a record dated from 1960 and an open diamond to represent squares with only pre-1960 records.

The seasonal distribution of records is indicated on each map by a histogram showing the proportion falling in each month. The histograms are scaled so that the longest bar is of a standard length (unless there are very few records).

Maps 1 and 2 show the coverage achieved. Map 1 shows all squares with at least one record - a total of 937 (out of 2865 squares in Great Britain). Map 2 shows the number of species recorded from each square. Clearly coverage is widespread but patchy with the most conspicuous gap being in southern-central Scotland.

There is no map of *Pteromicra pectorosa* because only two records were encountered, both insufficiently detailed to plot. One was an undated record for Wicken Fen, Cambs, the other was an undated record for 'Essex'.

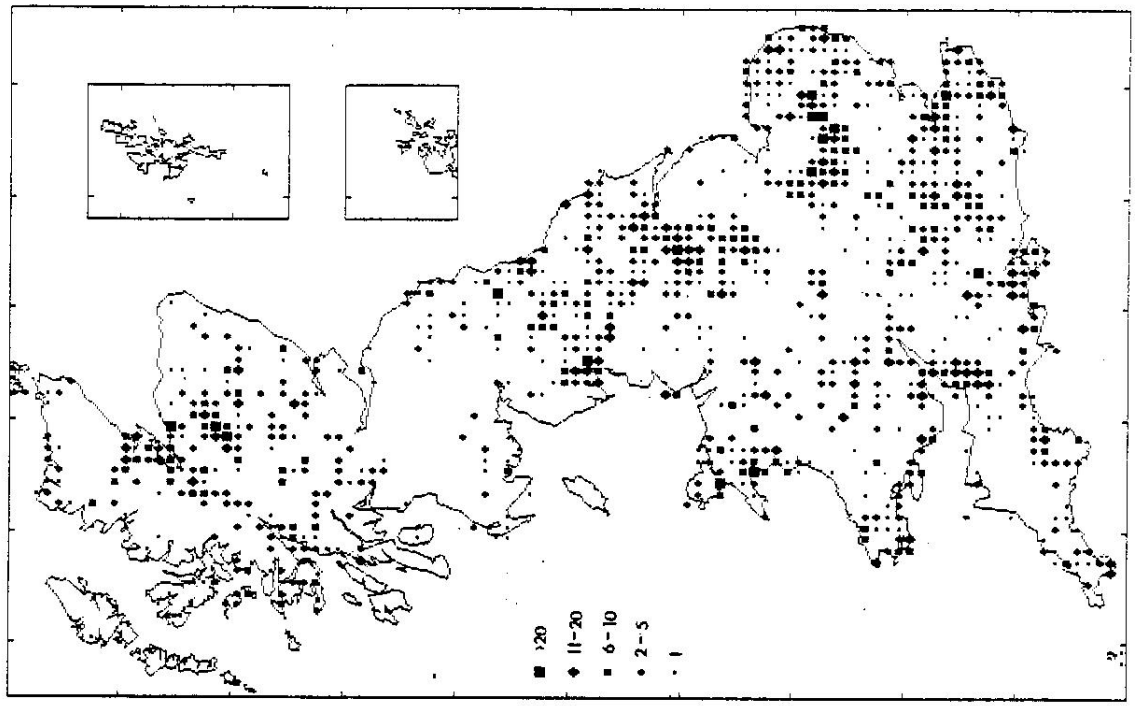
The two species of *Limnia* present a problem because they have been recognised as distinct relatively recently. Older records under the name of *L. unguicornis*, from the literature and from collections which have not been re-checked, are likely to include both species. For this reason the maps of *L. paludicola* and *L. unguicornis* include only recently verified records and an additional map has been plotted to show all records of both species.

Please send records to the scheme organiser:

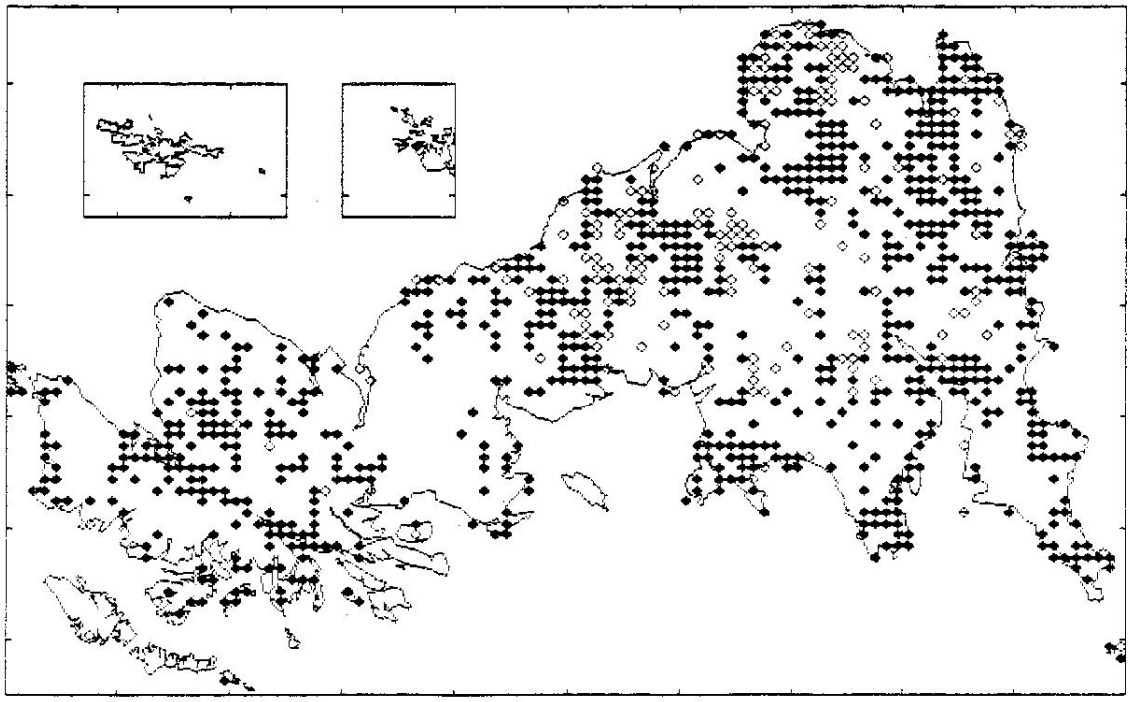
Dr. Ian McLean,
Nature Conservancy Council,
Northminster House,
Peterborough PE1 1UA

Table 1 - Summary of the records for each species

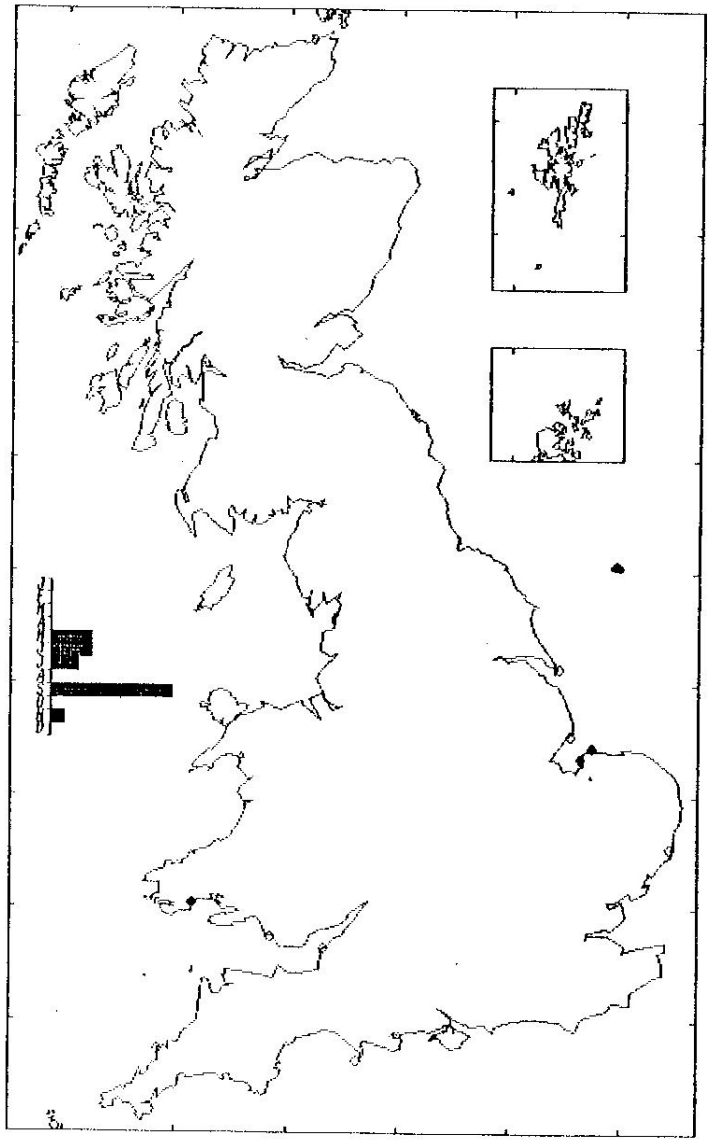
Species	10Km squares		Vice counties		Records	Status[change]
	All	Post60	All	Post60		
Totals	937	780	105	104	6703	
Tetanocera elata (F)	240	185	74	66	347	
Hydromya dorsalis (F)	215	171	67	58	302	
Pherbina coryleti (Scopoli)	211	166	74	65	399	
Tetanocera hyalipennis vonRoser	183	131	72	61	240	
Renocera pallida (Fal.)	179	162	70	66	241	
Tetanocera ferruginea Fal.	178	142	64	57	370	
Ilione albiseta (Scopoli)	176	139	70	64	295	
Pherbellia cinerella (Fal.)	169	145	64	60	269	
Trypetoptera punctulata (Scopoli)	167	130	68	60	241	
Pherbellia dubia (Fal.)	149	121	58	54	203	
Pherbellia albocostata (Fal.)	123	87	49	42	181	
Euthycera fumigata (Scopoli)	110	77	42	38	158	Notable [-]
Pherbellia ventralis (Fal.)	109	95	46	42	133	
Tetanocera robusta Loew	102	73	46	37	160	
Pelidnoptera fuscipennis (Mg.)	91	64	49	39	137	Notable [-]
Tetanocera arrogans (Mg.)	89	80	46	43	135	
Sepedon spinipes (Scopoli)	88	73	38	34	190	
Elgiva cucularia (L)	83	69	45	40	123	
Limnia unguicornis (Scopoli)	83	74	45	39	120	
Elgiva solicita (Harris)	82	59	33	24	188	
Tetanocera fuscinervis (Zett.)	81	66	42	34	116	
Pherbellia schoenherri (Fal.)	72	46	42	31	118	
Coremacera marginata (F)	72	48	39	30	100	
Dichetophora obliterata (F)	71	30	32	21	108	
Tetanocera silvatica Mg.	71	51	34	30	95	
Sepedon sphegea (F)	67	48	35	26	112	
Tetanura pallidiventris Fal.	64	54	36	31	97	Notable [-]
Ilione lineata (Fallen)	60	44	41	29	79	
Pherbellia scutellaris (vonRoser)	59	51	31	27	82	
Dictya umbrarum (L)	59	46	28	24	91	Notable
Limnia paludicola Elberg	59	56	35	34	85	
Renocera stroblii Hendel	55	46	26	23	83	Notable
Tetanocera phyllophora Mel.	55	46	34	28	81	Notable
Pherbellia pallidiventris (Fal.)	50	30	28	18	64	
Pteromicra angustipennis (Stg.)	50	40	34	31	90	Notable
Pherbellia brunnipes Mg.	44	34	19	18	68	RDB3 [Notable]
Pherbellia griseola (Fal.)	40	21	27	17	70	RDB3 [Notable]
Psacadina verbeki Roz.	40	30	27	22	60	Notable
Pherbellia grisescens (Mg.)	37	23	28	18	54	RDB3
Pelidnoptera nigripennis (F)	34	20	17	11	61	RDB3 [Notable]
Pherbellia dorsata (Zett.)	33	27	23	18	57	RDB3
Pherbellia nana (Fal.)	33	14	19	10	39	Notable
Tetanocera punctifrons Rond.	30	24	23	19	43	Notable
Pteromicra glabricula (Fal.)	27	19	23	17	35	RDB2 [RDB3]
Sciomyza simplex Fal.	26	19	18	15	47	RDB3
Colobaea bifasciella (Fal.)	24	17	16	13	39	RDB3
Colobaea punctata (Lund.)	21	15	15	11	26	Notable
Dichetophora finlandica Verbecke	17	10	12	9	32	RDB1 [RDB3]
Ectinocera borealis (Zett.)	16	9	9	7	22	RDB3
Colobaea distincta (Mg.)	15	12	13	10	17	RDB3
Pherbellia annulipes (Zett.)	15	10	8	7	32	Notable
Renocera striata (Mg.)	12	7	3	2	29	- [RDB3]
Salticella fasciata (Mg.)	11	3	9	2	24	RDB2
Antichaeta brevipennis (Zett.)	10	5	9	4	12	RDB2
Tetanocera freyi Stack.	10	10	9	9	12	RDB3
Pherbellia argyra Verbecke	9	4	10	5	16	RDB2
Antichaeta analis (Mg.)	9	7	7	5	22	RDB2
Pherbellia knutsoni Verbecke	8	3	6	3	17	Notable
Stiomyza dryomyzina Zett.	7	3	6	3	8	RDB2
Colobaea pectoralis (Zett.)	6	4	6	4	6	RDB2 [RDB3]
Psacadina vittigera (Schiner)	6	4	4	3	15	RDB2
Psacadina zernyi Mayer	5	4	4	3	5	RDB2
Pteromicra leucopeza (Mg.)	3	3	3	3	3	RDB2
Pteromicra pectorosa (Hendel)	0	0	0	0	2	RDB2



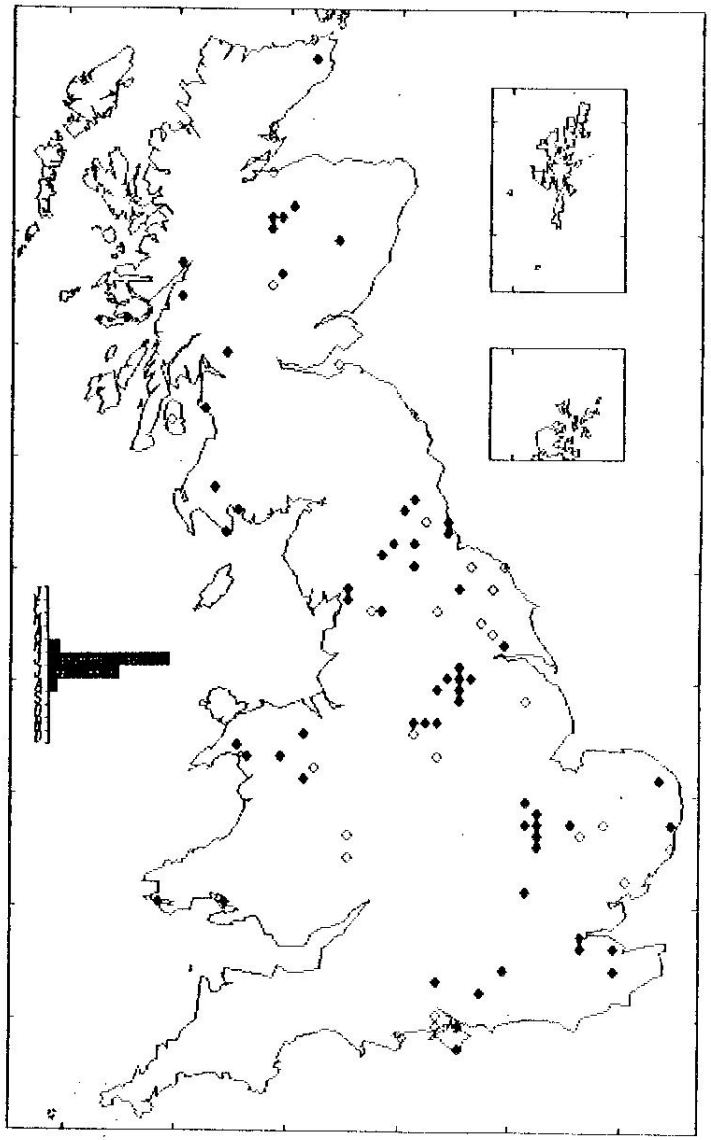
MAP 2 Number of species per 10 Km square



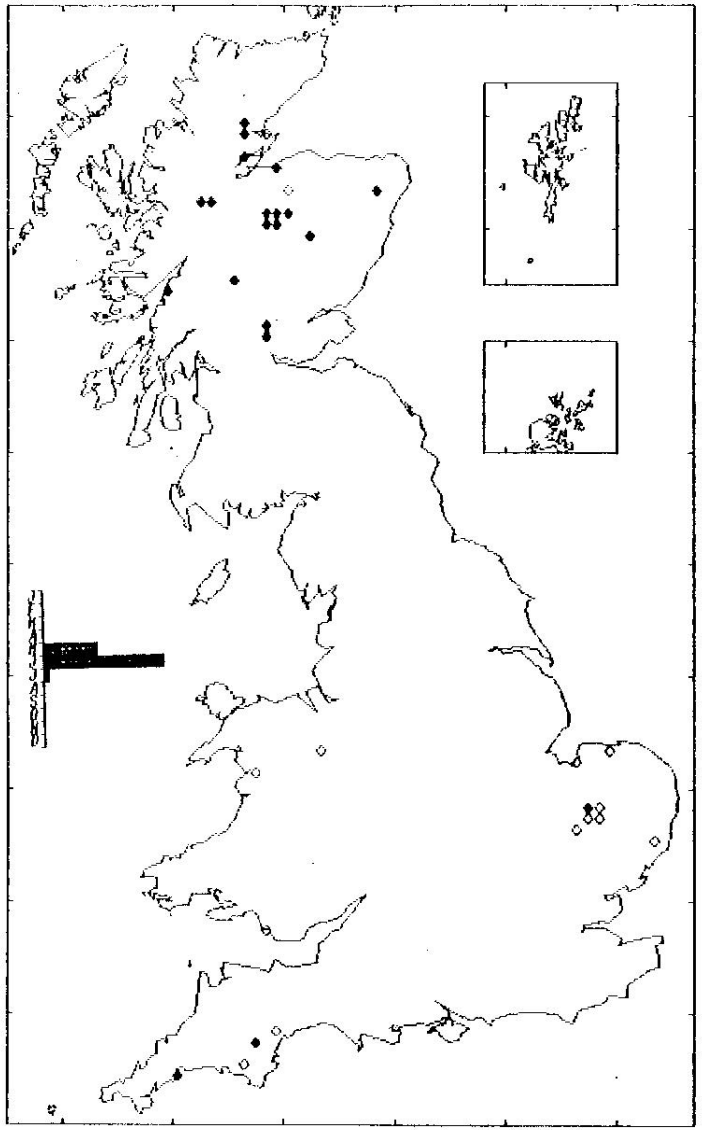
MAP 1 All records



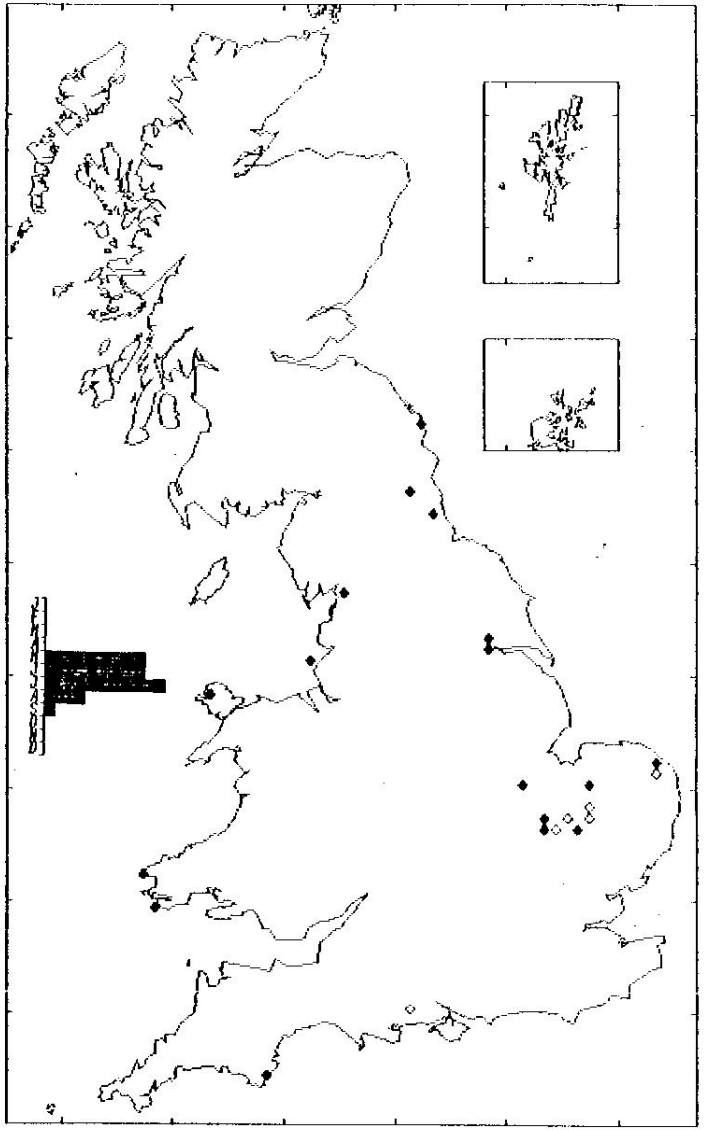
Saltiella fasciata (Mg.) Larvae predators, parasitoids and saprophagous in terrestrial snails, adults typically in fore-dunes. Rare and confined to southern coastal dunes.



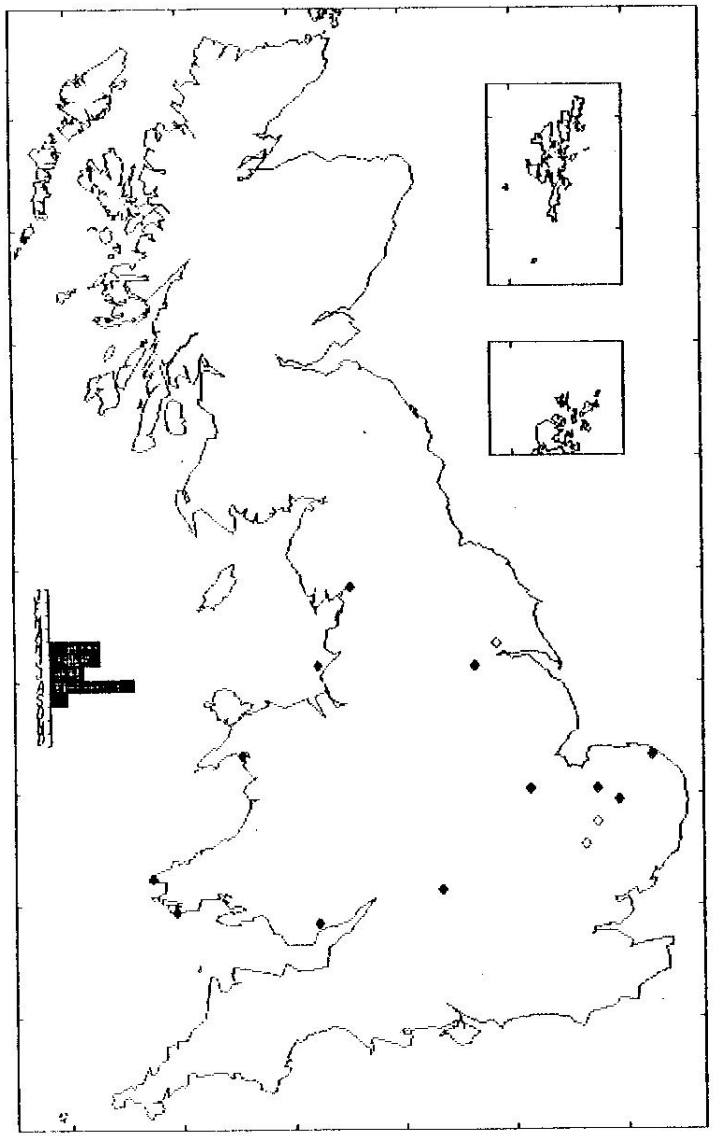
Pelidnoptera fuscipennis (Mg.) Larval biology unknown, adults typically in ancient woodland.



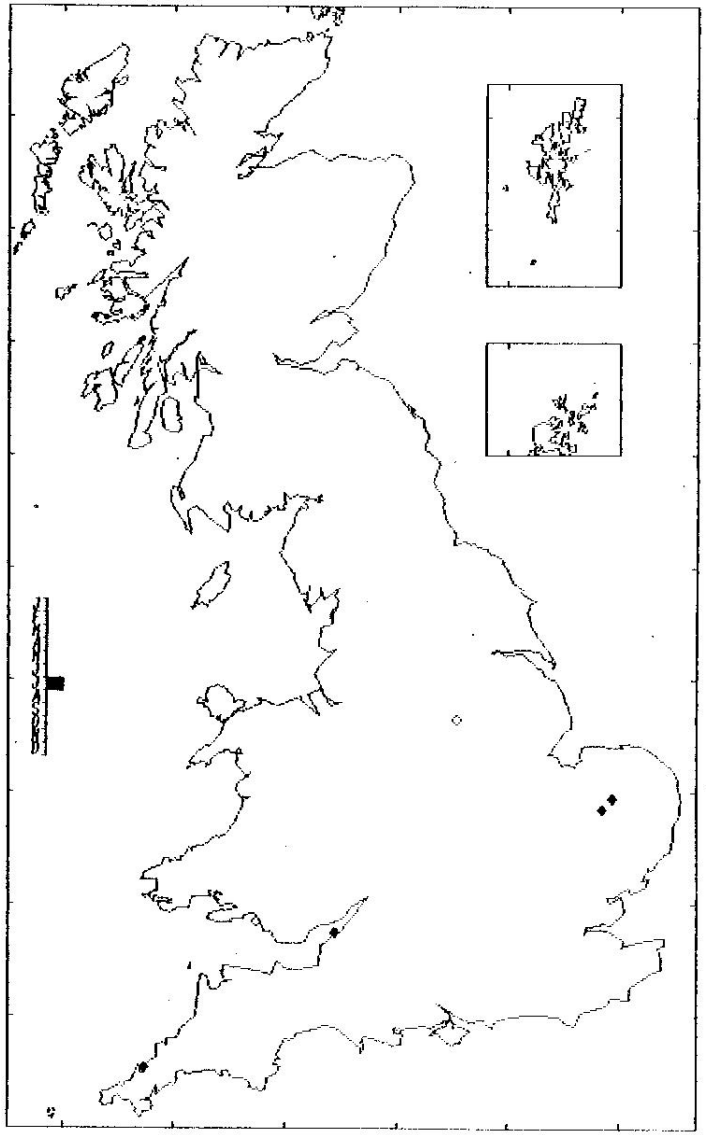
Pelidnoptera nigripennis (F.) Larval biology unknown, adults typically in shaded woodland. Rare outside Scotland.



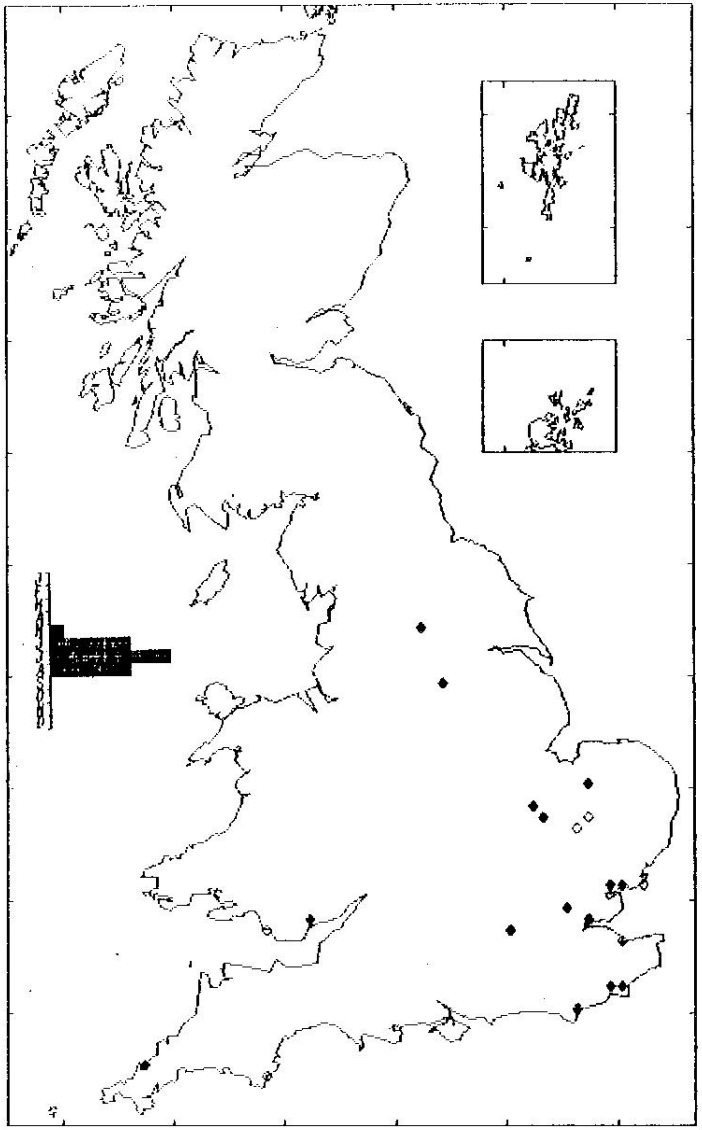
Colobaea bifasciella (Fall.) Larvae parasitoids of Lymnaea, adults in fens, at edges of woods and beside ponds.



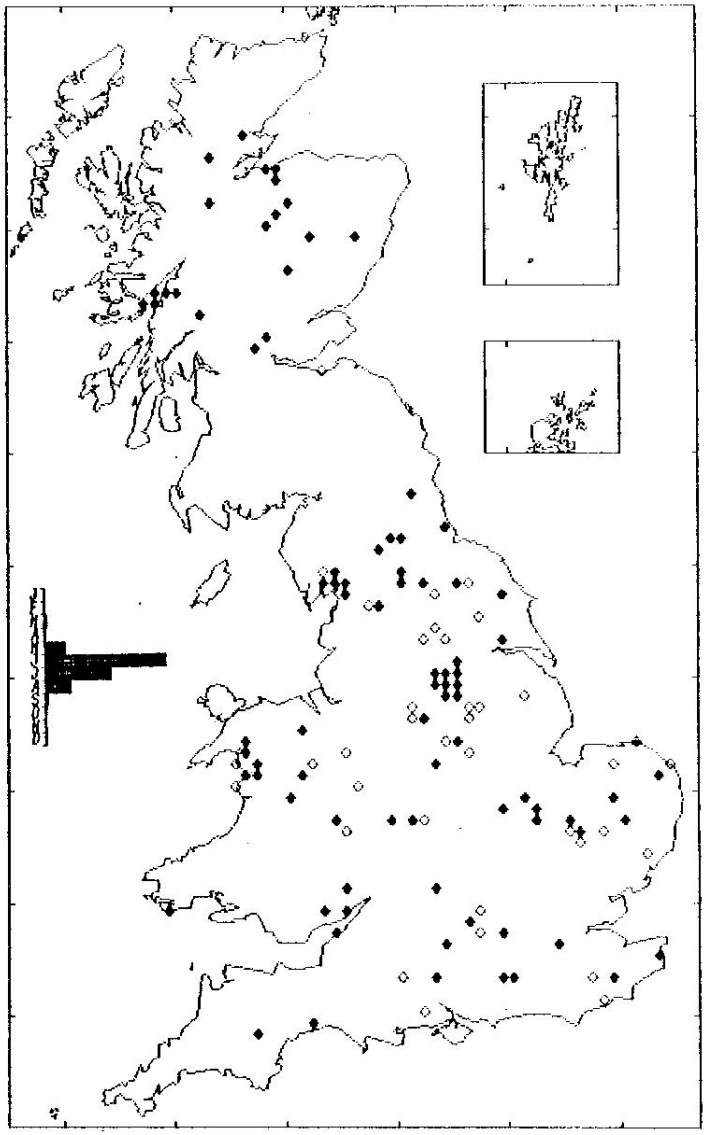
Colobaea distincta (Mg.) Larvae parasitoids of Anisus leucostoma, adults beside ponds or in nearby marsh vegetation.



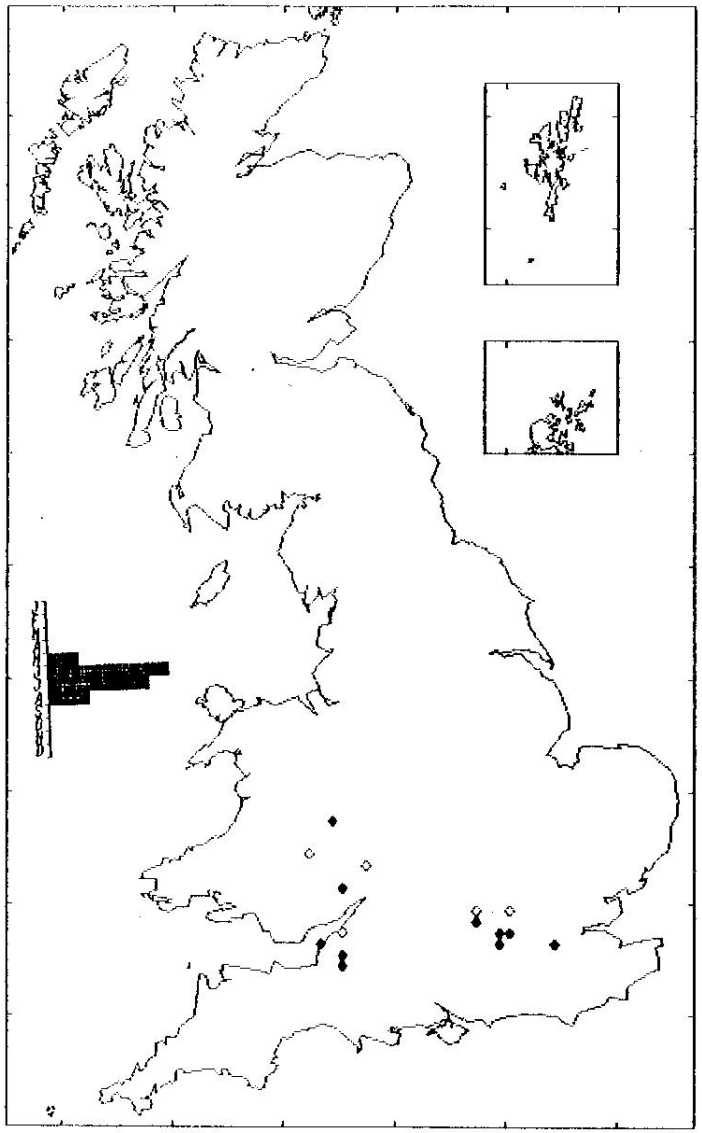
Colobaea pectoralis (Zett.) Larvae parasitoids of Anisus vortex, adults beside ponds (e.g. fluctuating Breckland meres).



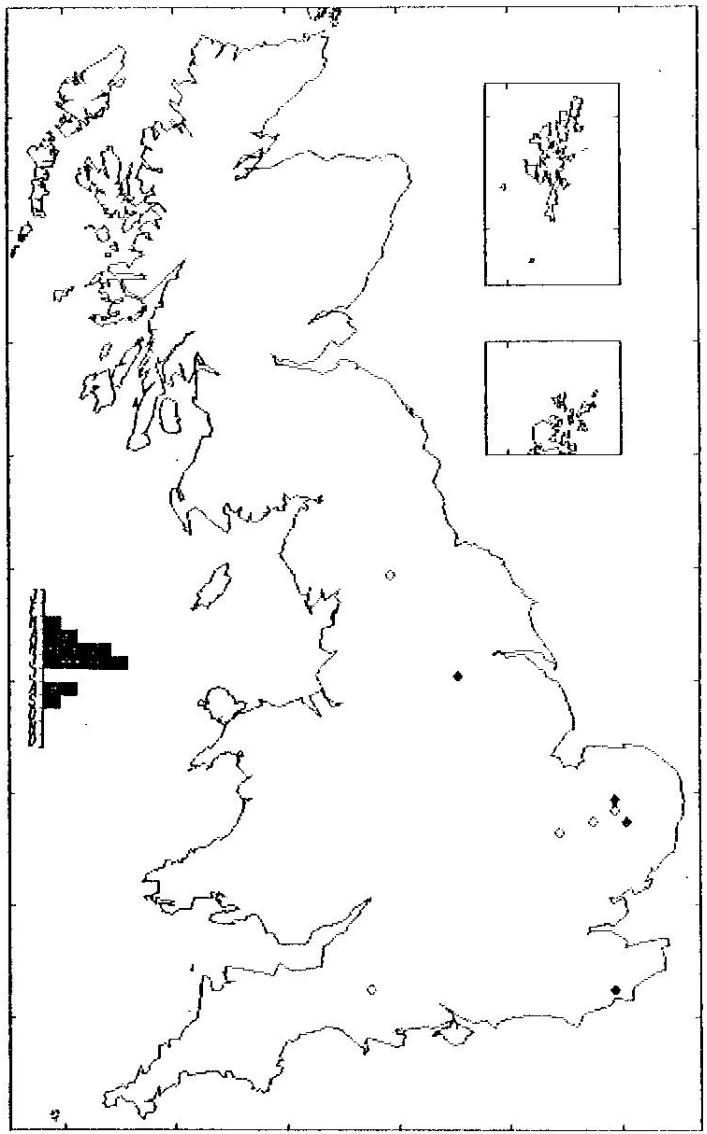
Colobaea punctata (Lundbeck) Larvae parasitoids of Planorbarius, Planorbis and Lymnaea, adults beside ponds and drying out ditches (especially on levels marshes).



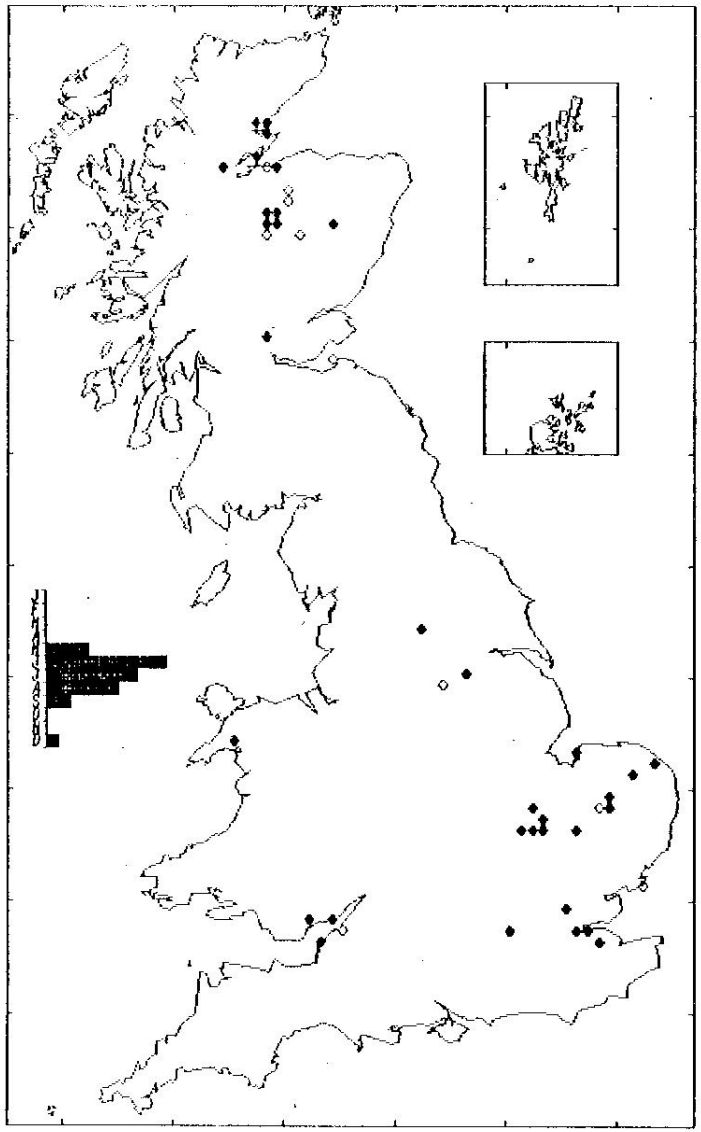
Pherbellia albocostata (Fall.) Larvae parasitoids of terrestrial snails (Cochlicopa and Discus), adults typically in shaded woodland (often ancient woods).



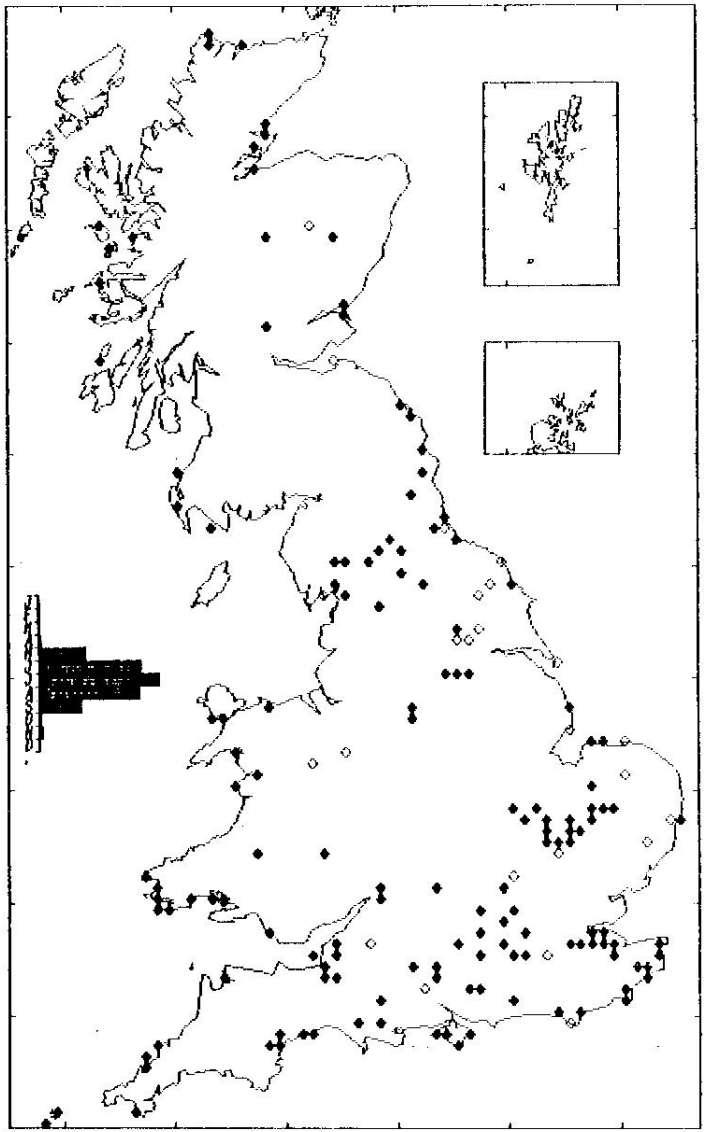
Pherbellia annulipes (Zett.) Larvae parasitoids of Discus (laboratory rearing), adults walk on fallen tree trunks in shaded ancient woods.



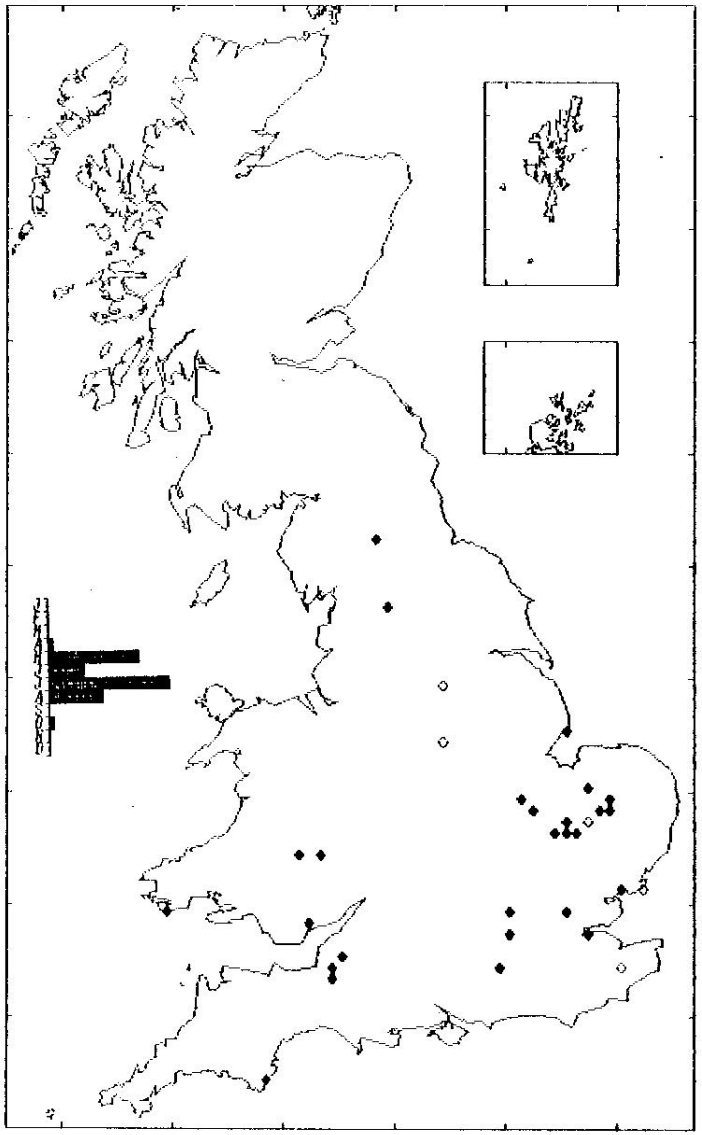
Pherbellia argyra Verbeke Larvae parasitoids of Planorbis planorbis and Anisus vortex, adults beside ponds and drying out ditches (e.g. on levels marshes).



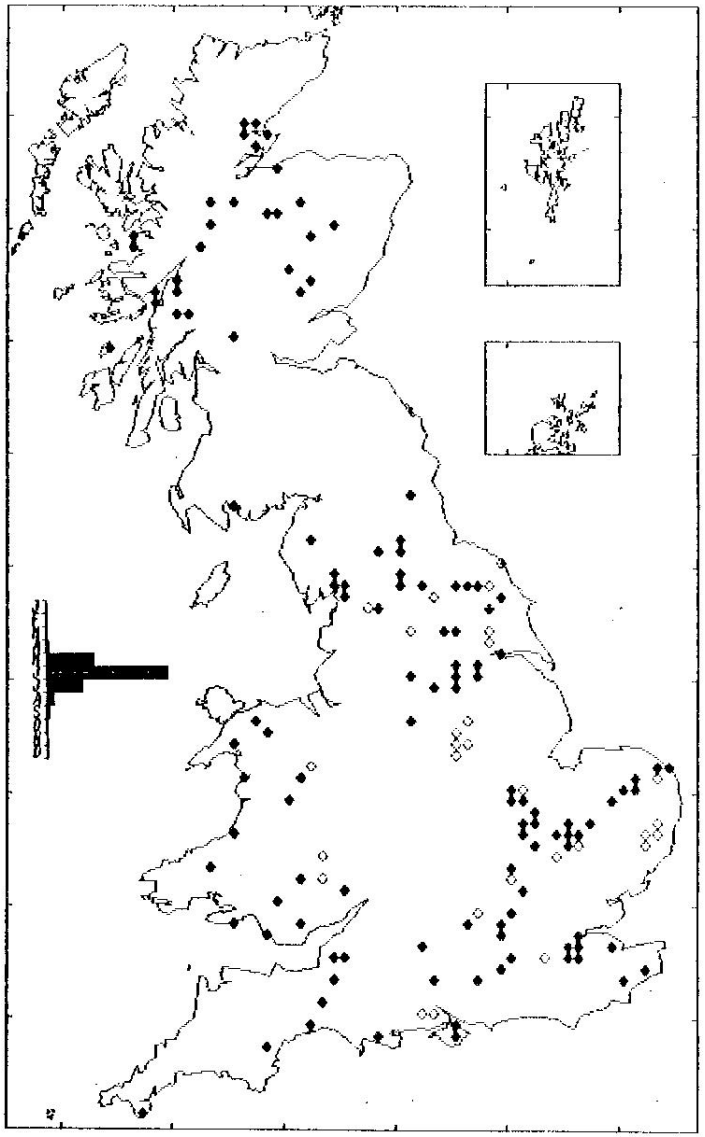
Pherbellia brunnipes (Mg.) Larval biology unknown, probably parasitoids of wetland snails, adults typically in fens or levels marshes. Commoner than previously thought.



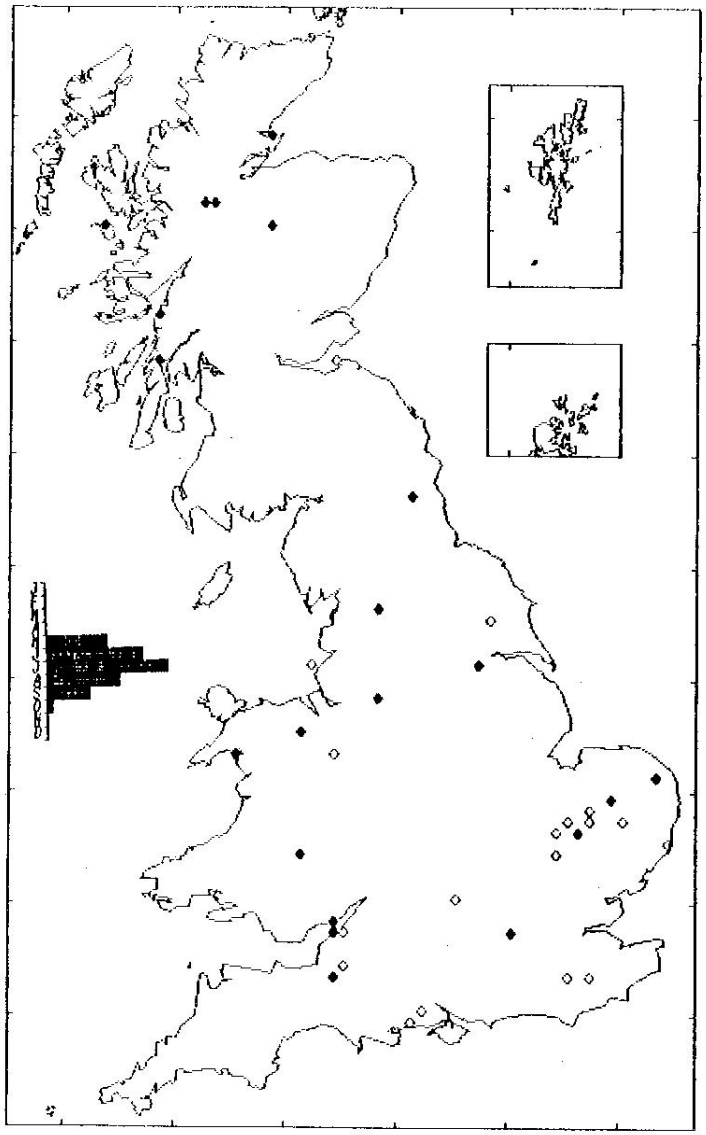
Pherbellia cinerella (Fall.) Larvae parasitoids of terrestrial and aquatic snails, adults in dry grassland (including calcareous and dunes) and a variety of wetland habitats.



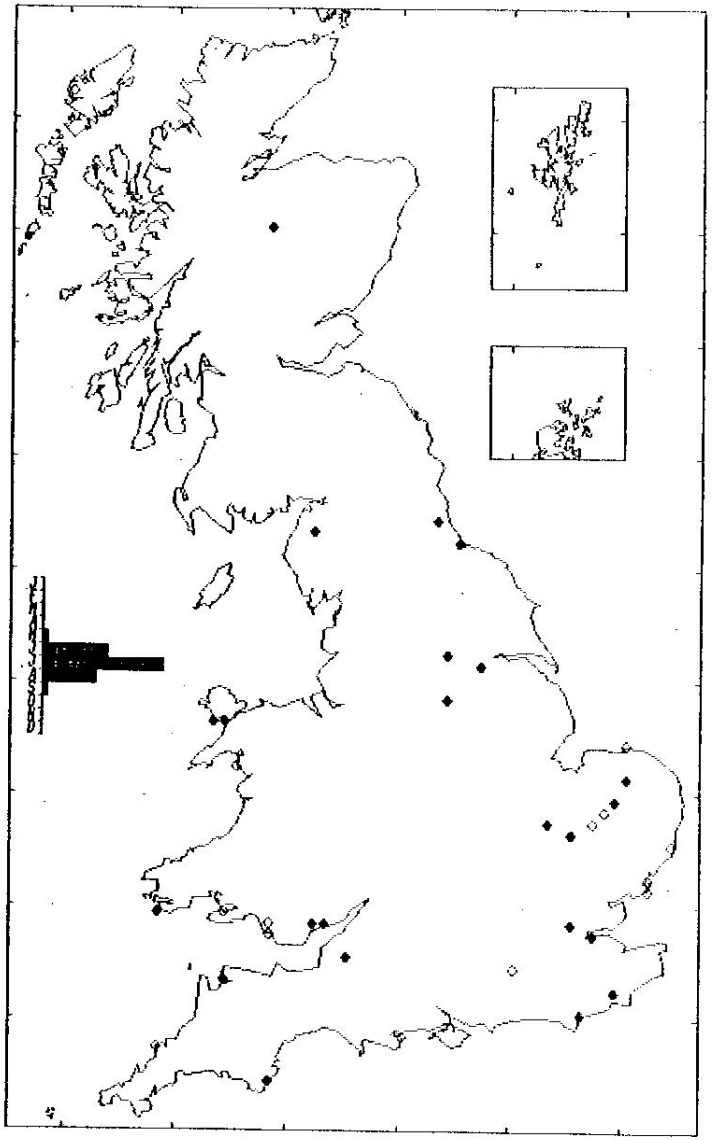
Pherbellia dorsata (Zett.) Larvae parasitoids of Planorbis planorbis, adults typically in fens or levels marshes.



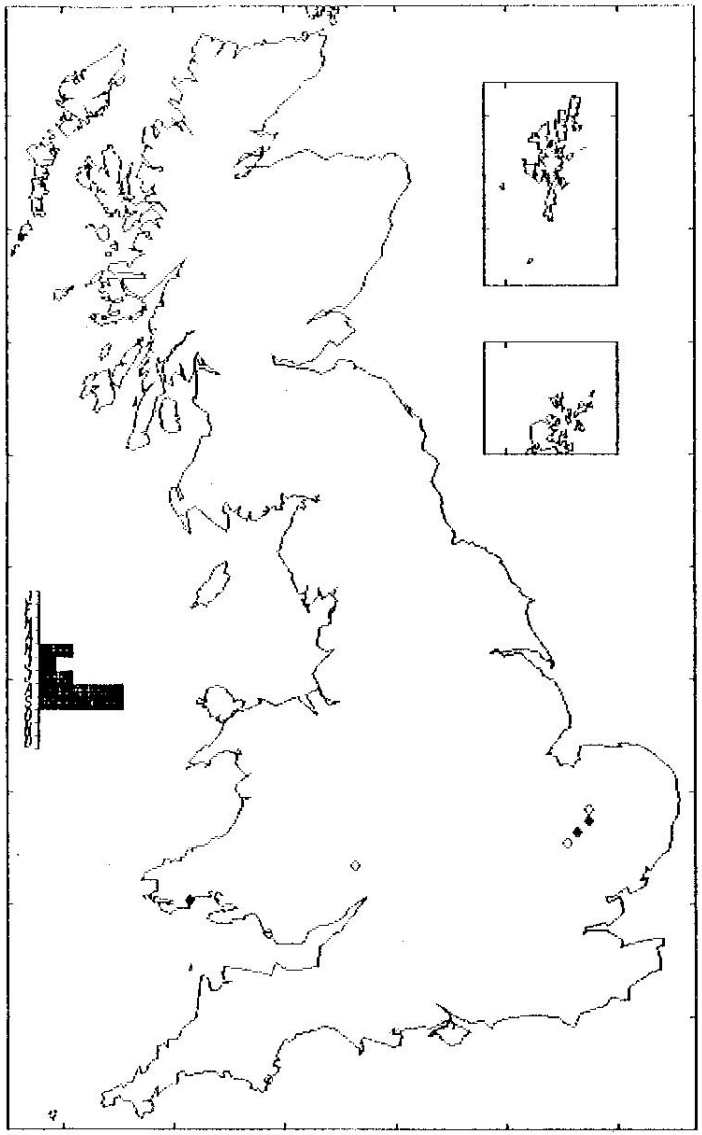
Pherbellia dubia (Fall.) Larvae parasitoids of terrestrial snails (e.g. Cochlicopa and Discus), adults typically in shaded woodland.



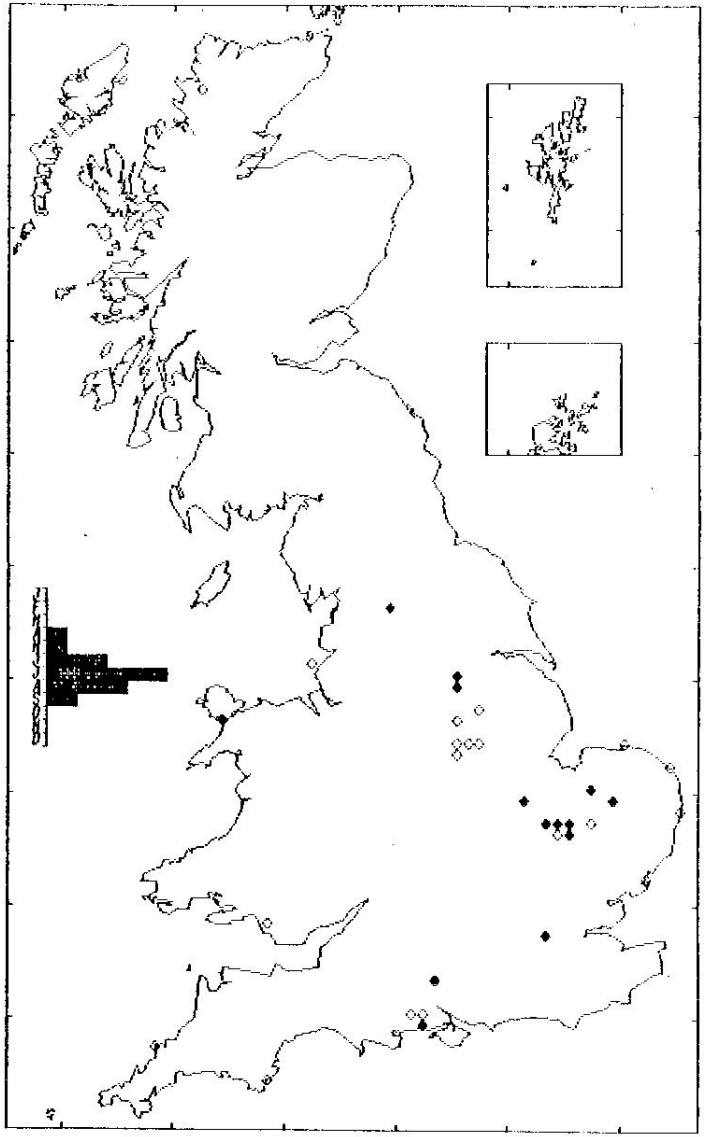
Pherbellia griseola (Fall.) Larvae parasitoids of Lymnaea palustris, adults in fens, mineral marshes and sometimes on bogs.



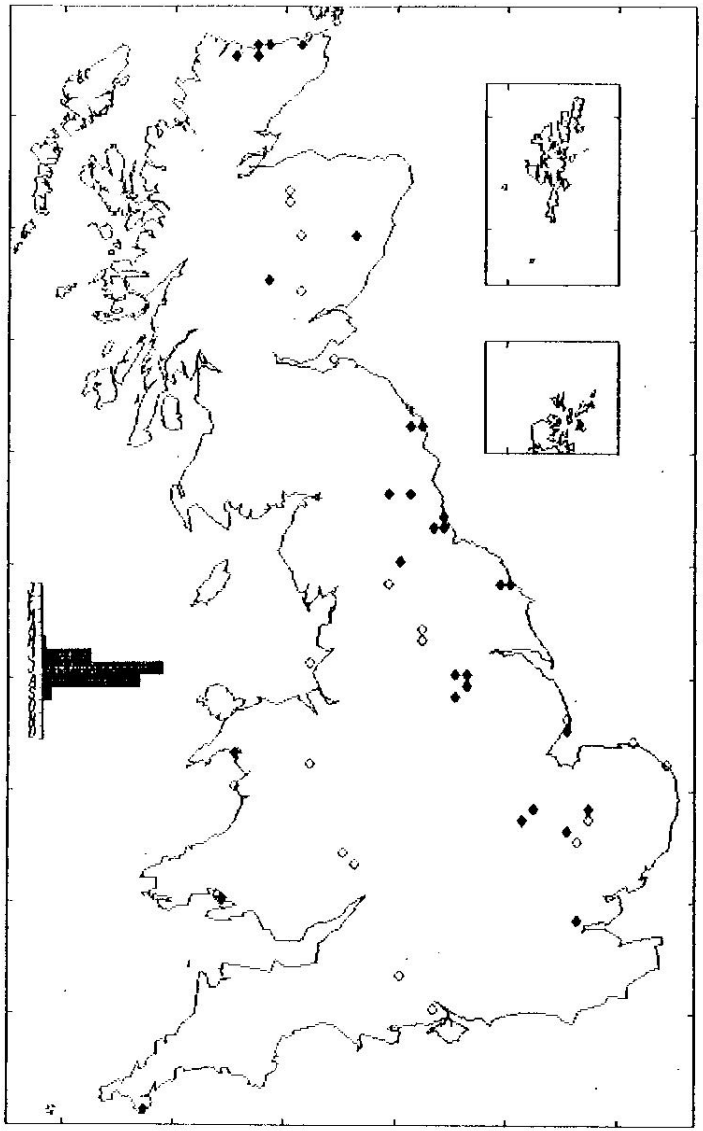
Pherbellia grisescens (Mg.) Larvae parasitoids of terrestrial and aquatic snails, adults in dry grassland and a variety of wetland habitats. There is a slight preference for coastal areas.



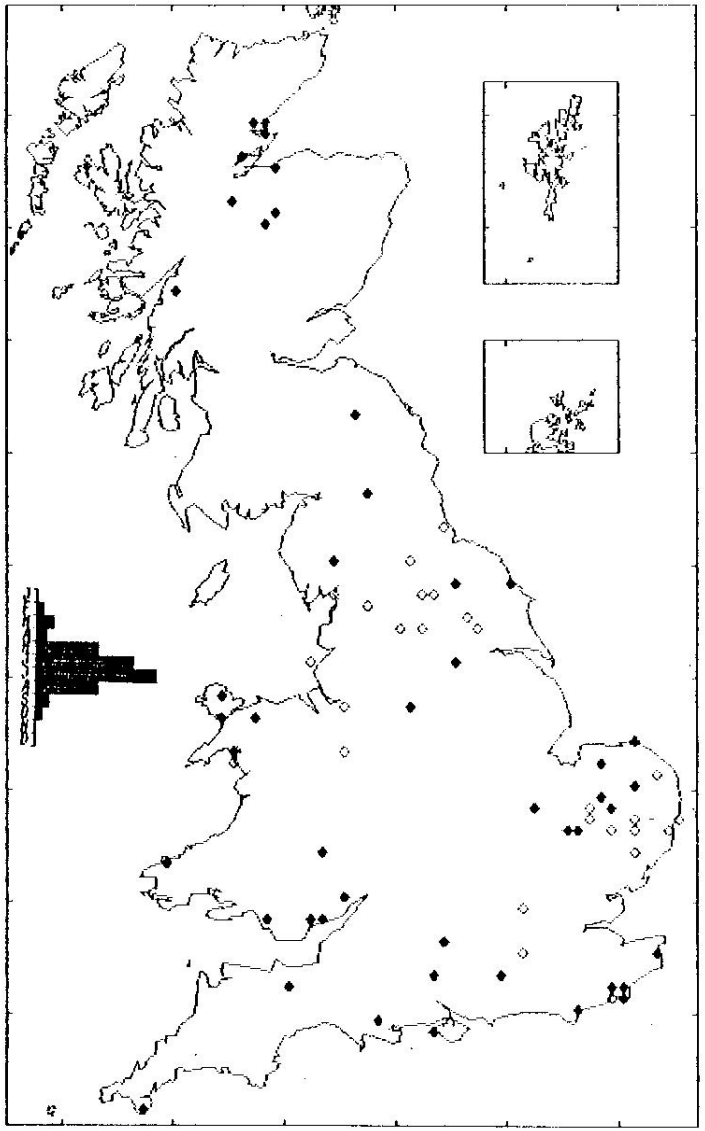
Pherbellia knutsoni Verbeke Larvae parasitoids of terrestrial snails, adults in coastal dunes, on chalk grassland and on calcareous Breckland grassland. Apparently occurs in low numbers and is hard to detect even at known localities.



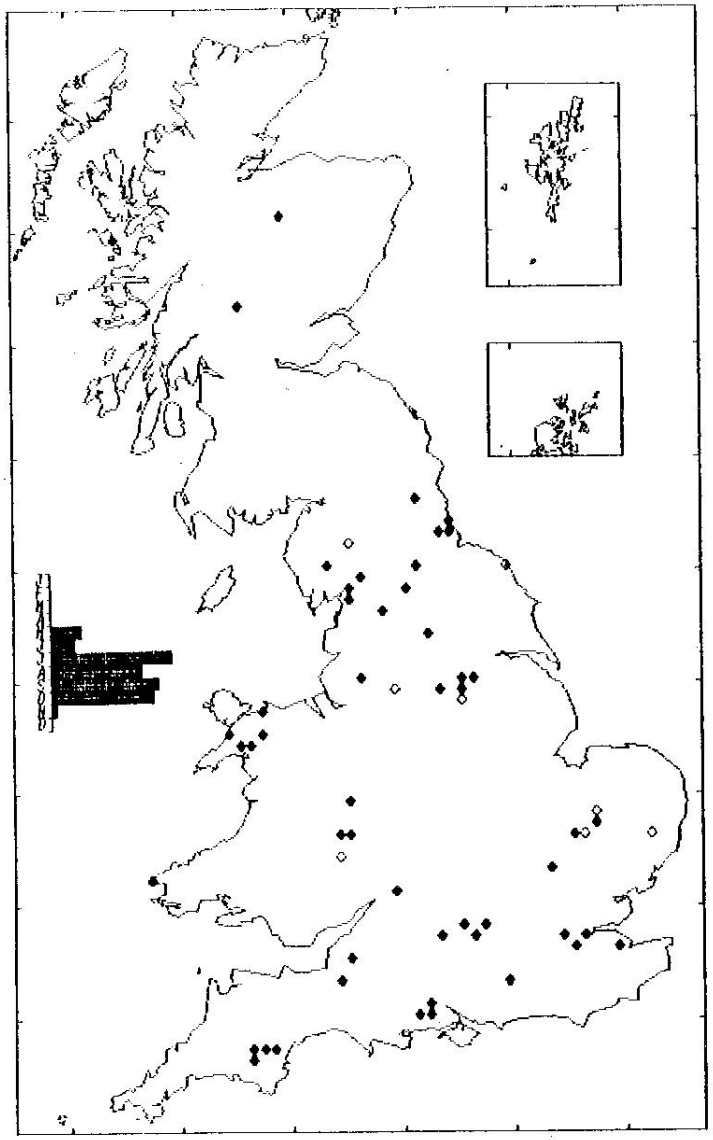
Pherbellia nana (Fall.) Larval biology unknown, probably parasitoid of aquatic snails, adults beside ponds or ditches with a low summer water level, also beside a river.



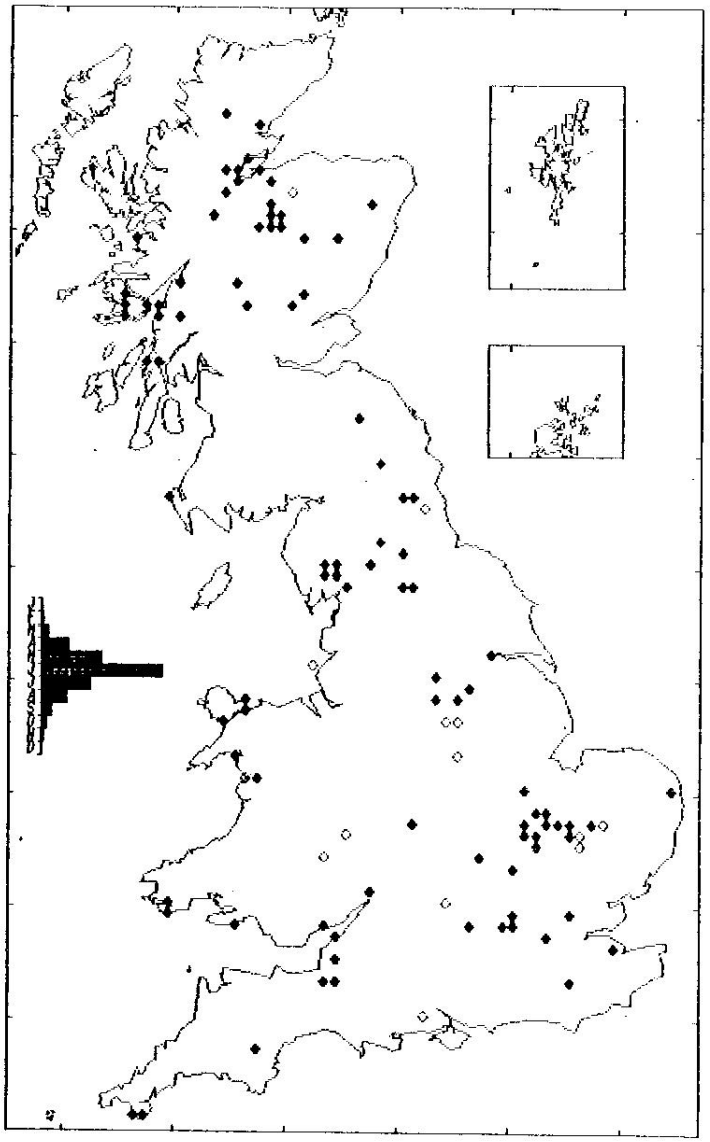
Pherbellia pallidiventris (Fall.) Larval biology unknown, adults in wetlands, woodlands and coastal dunes.



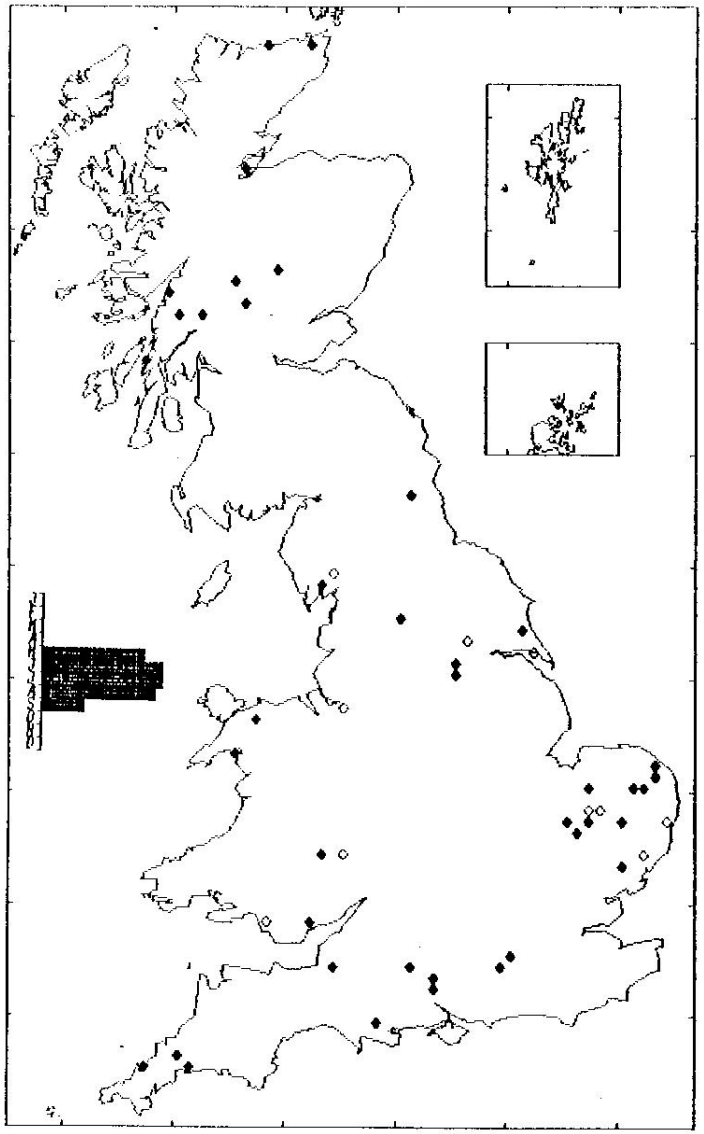
Pherbellia schoenherri (Fall.) Larvae parasitoids of Succinea species, adults in a variety of wetlands, especially fens and levels marshes.



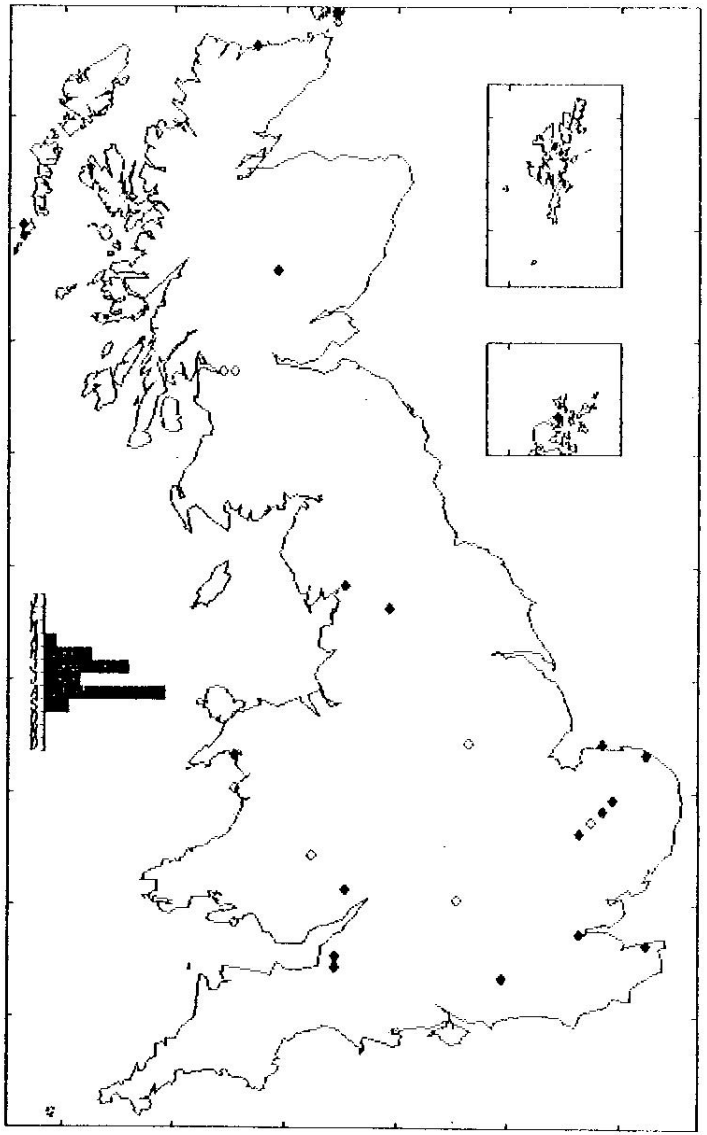
Pherbellia scutellaris (Roser) Larvae parasitoids of Clausilia species, adults in shaded woodlands (typically ancient).



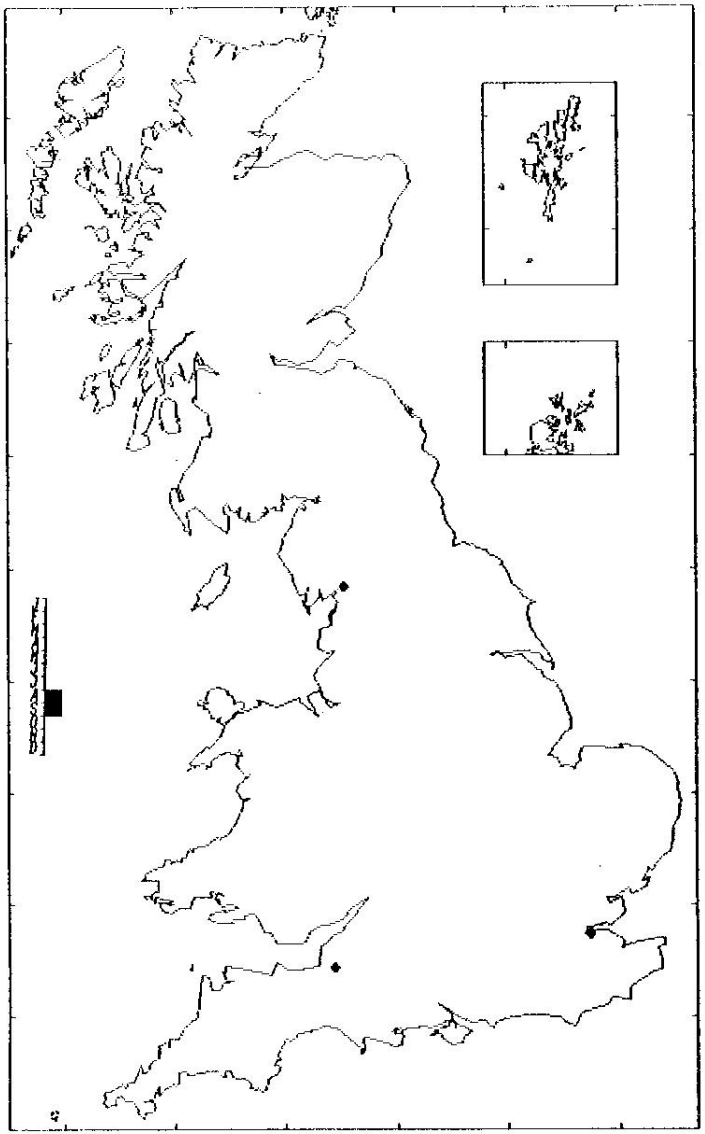
Pherbellia ventralis (Fall.) Larvae parasitoids of Lymnaea palustris and probably other aquatic snails, adults in a wide range of wetland habitats and beside ponds, ditches or rivers.



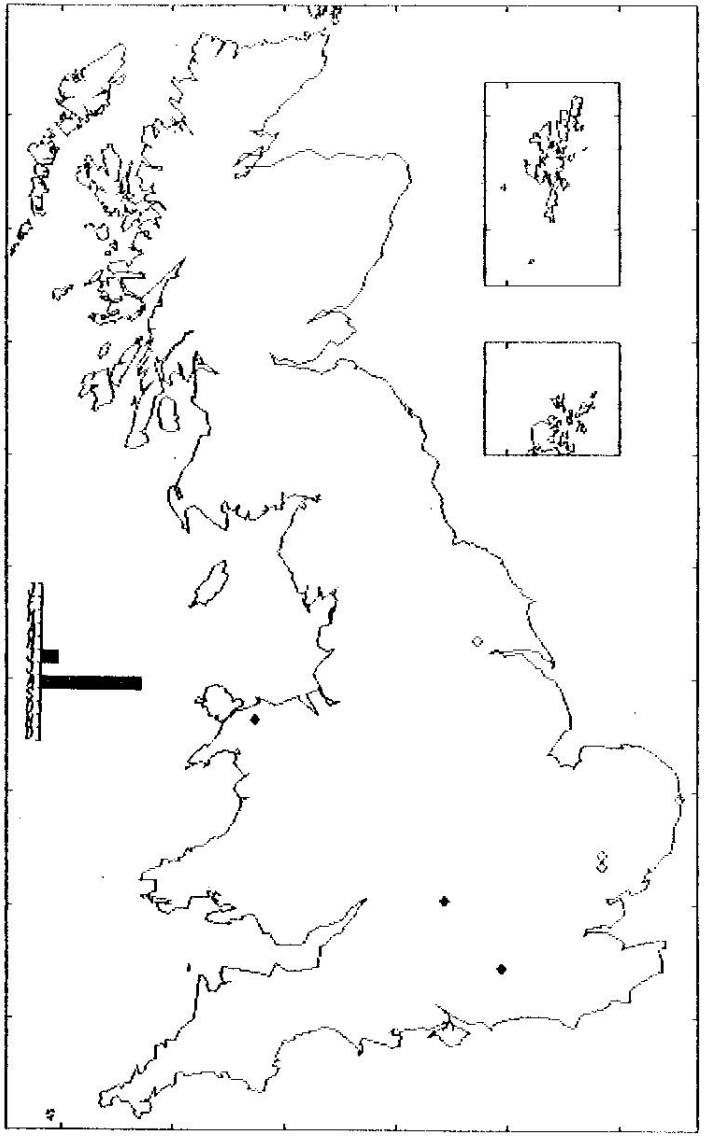
Pteromicra angustipennis (Staeger) Larvae parasitoids of aquatic snails, adults tend to walk amongst dense vegetation in fens, marshes and beside ponds or ditches. More readily found by "pooting" or "tussocking" than by sweeping.



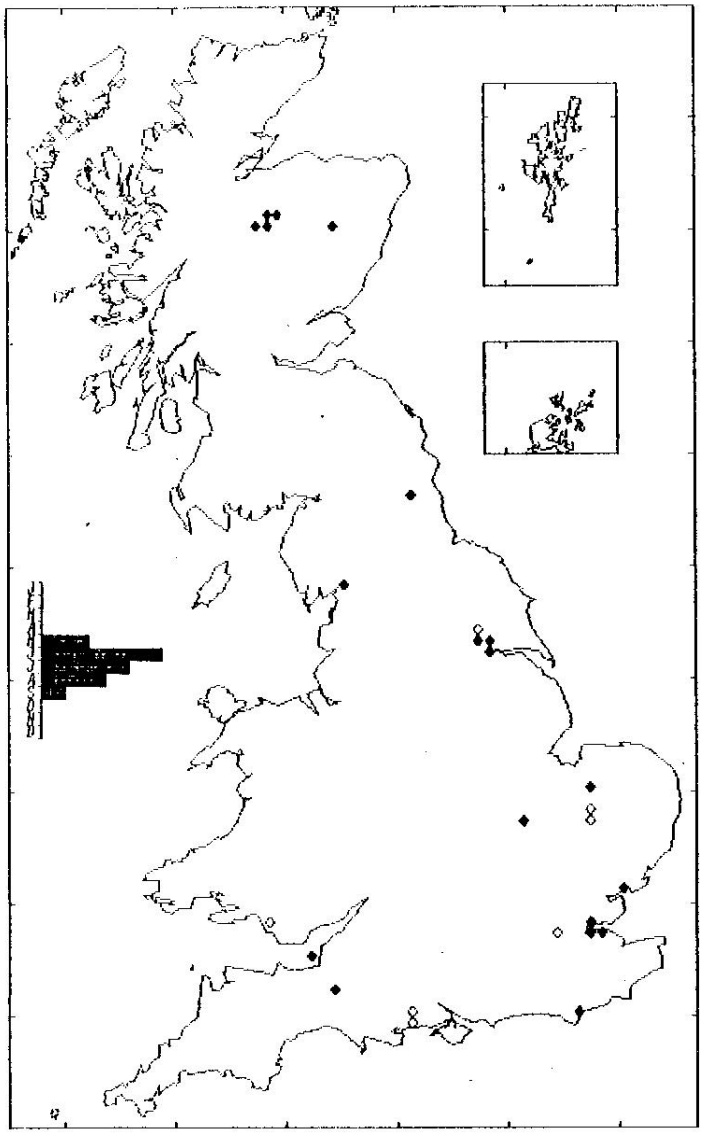
Pteromicra glabricula (Fall.) Larvae parasitoids of aquatic snails (especially Lymnaea in the laboratory), adults in fens, mesotrophic wetlands and beside ponds.



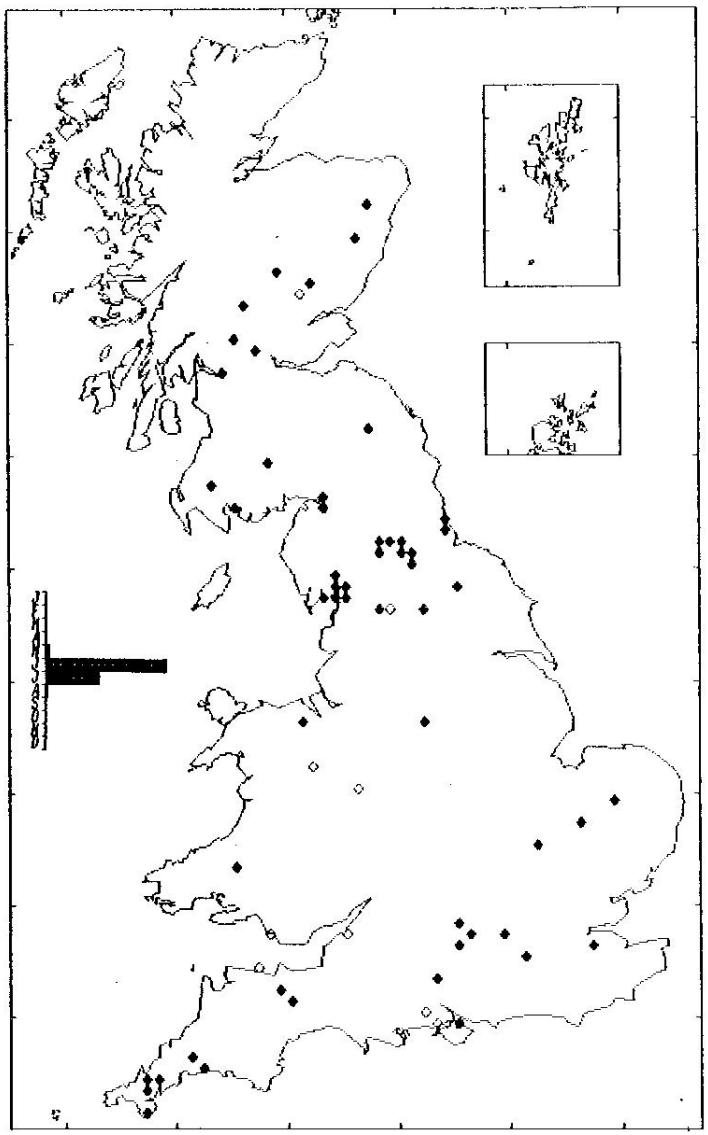
Pteromicra leucopeza (Mg.) Larvae parasitoids of aquatic snails (Bathyomphalus contortus and possibly Anisus vortex), adults typically near ponds or ditches.



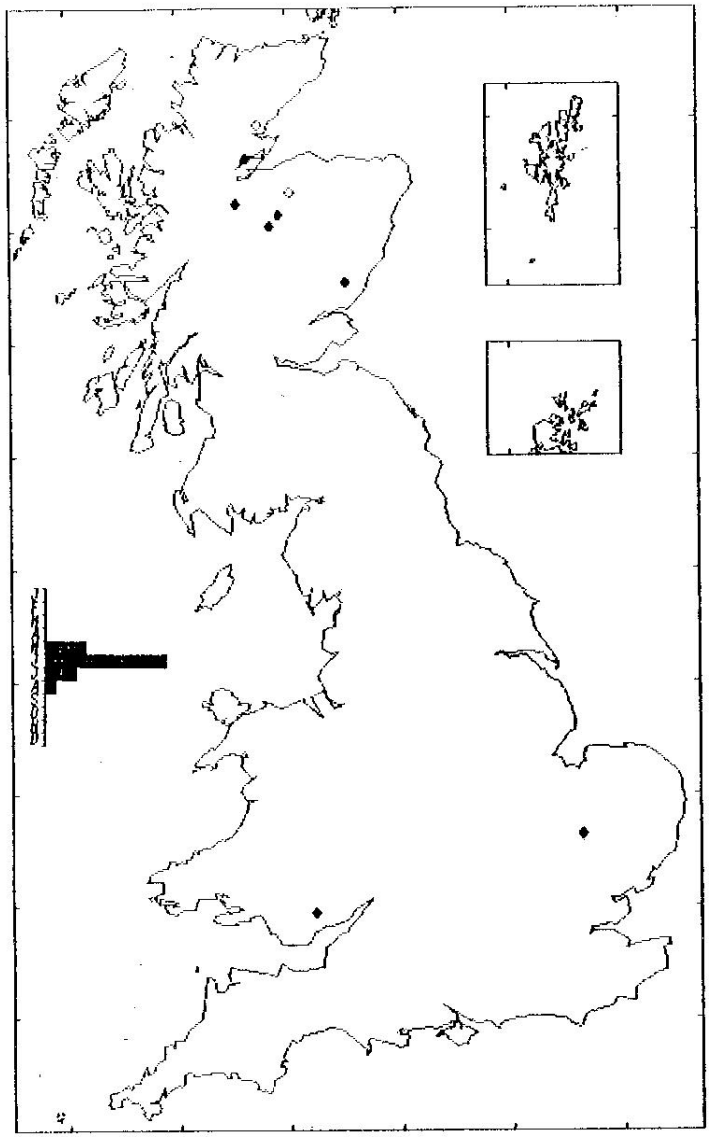
Sciomyza dryomyzina Zett. Larvae parasitoids of Oxyloma (Alaskan record), adults in river valley marshes and other wetland habitats.



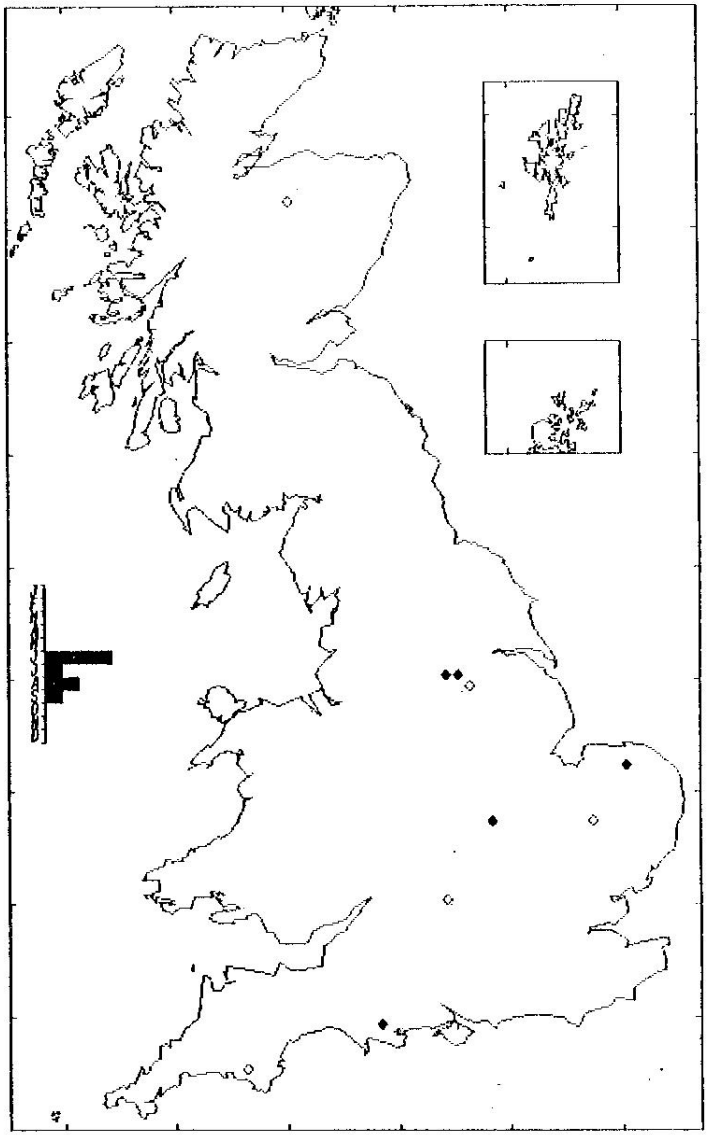
Sciomyza simplex Fall. Larvae apparently parasitoids or predators of Succineidae, Lymnaea and Physa, adults beside ponds or ditches with several records from levels marshes.



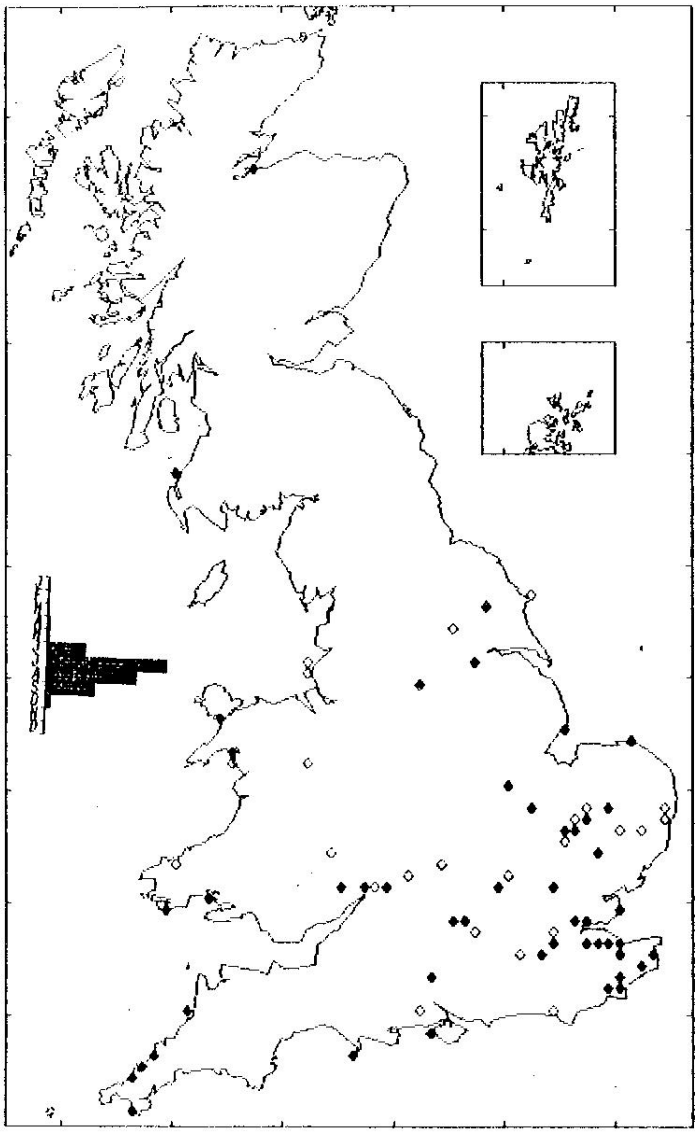
Tetanura pallidiventris Fall. Larvae parasitoids of the terrestrial snails Cochlicopa, Discus and Aegopinella, adults in shaded (often ancient) woodland.



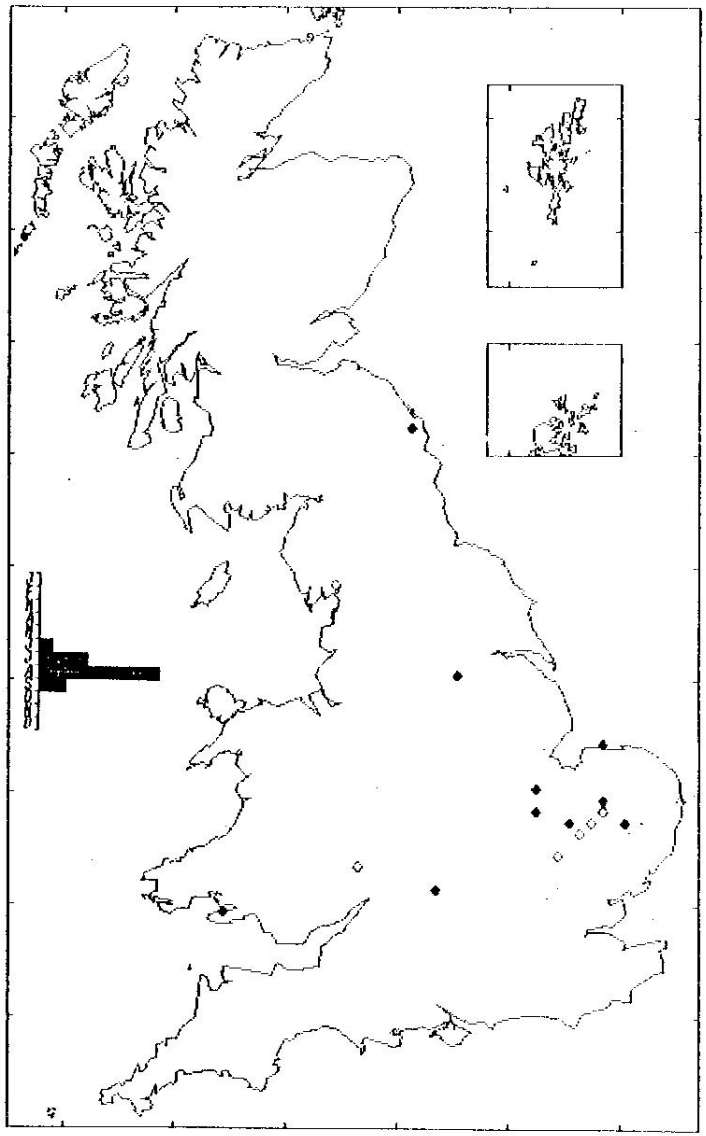
Antichaeta analis (Mg.) Larvae predators of snail eggs (Lymnaea truncatula), adults in fens and Carex swamps.



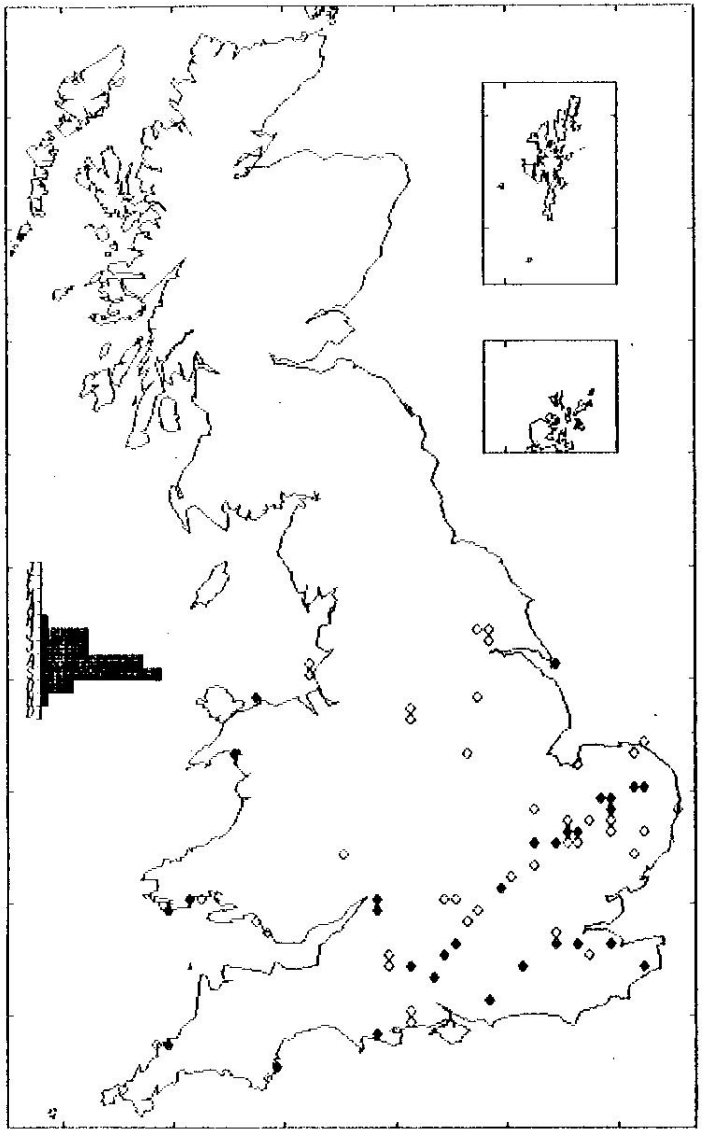
Antichaeta brevipennis (Zett.) Larvae predators of snail eggs (Succinea species), adults walk low down in dense vegetation at the margin of ponds and ditches.



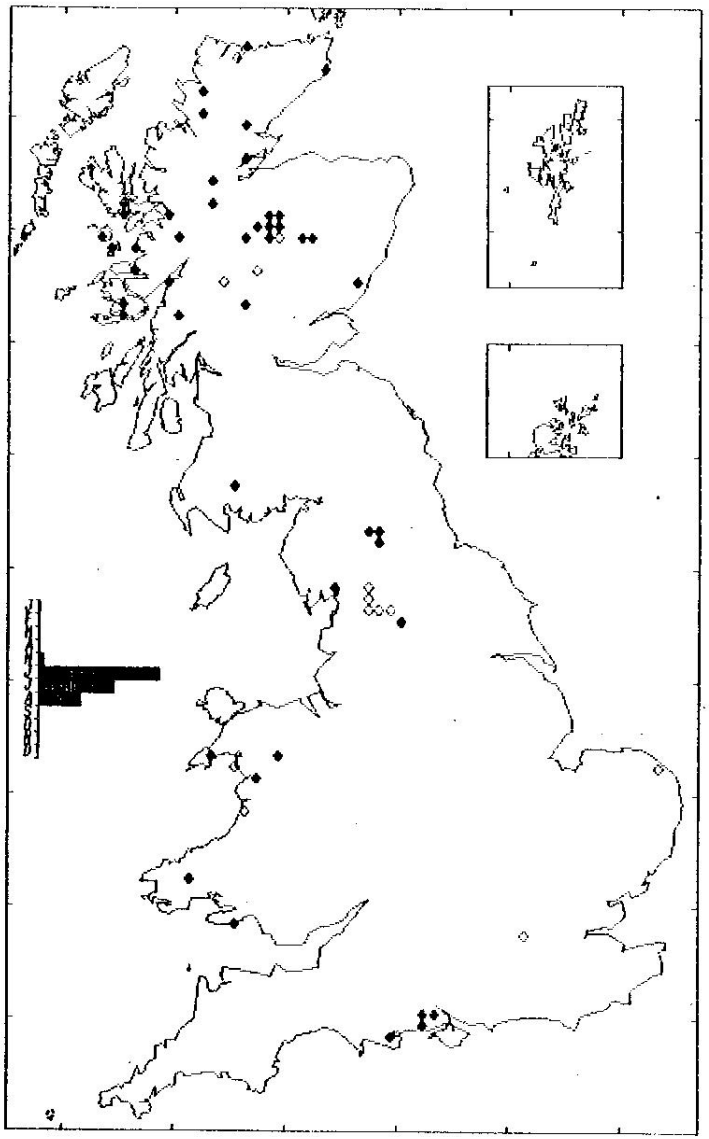
Coremacera marginata (F.) Larvae parasitoids of terrestrial snails, adults typically in calcareous grasslands, also occasionally in wetlands.



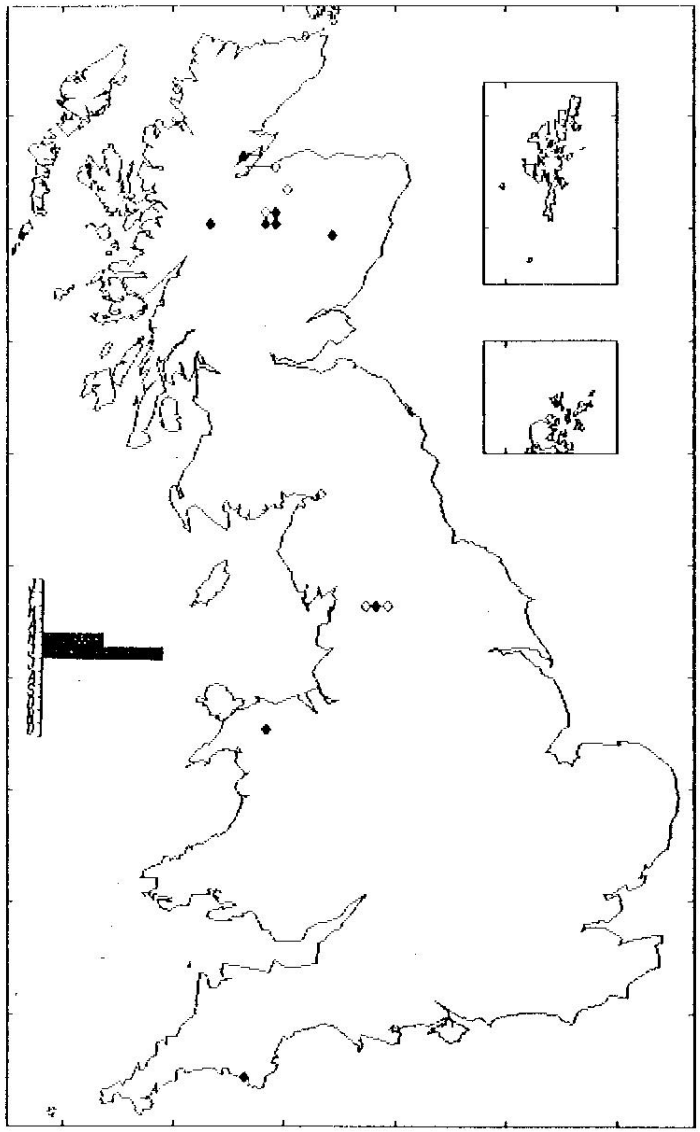
Dichetophora finlandica Verbeke Larval biology unknown, adults in grassland and wetland habitats.



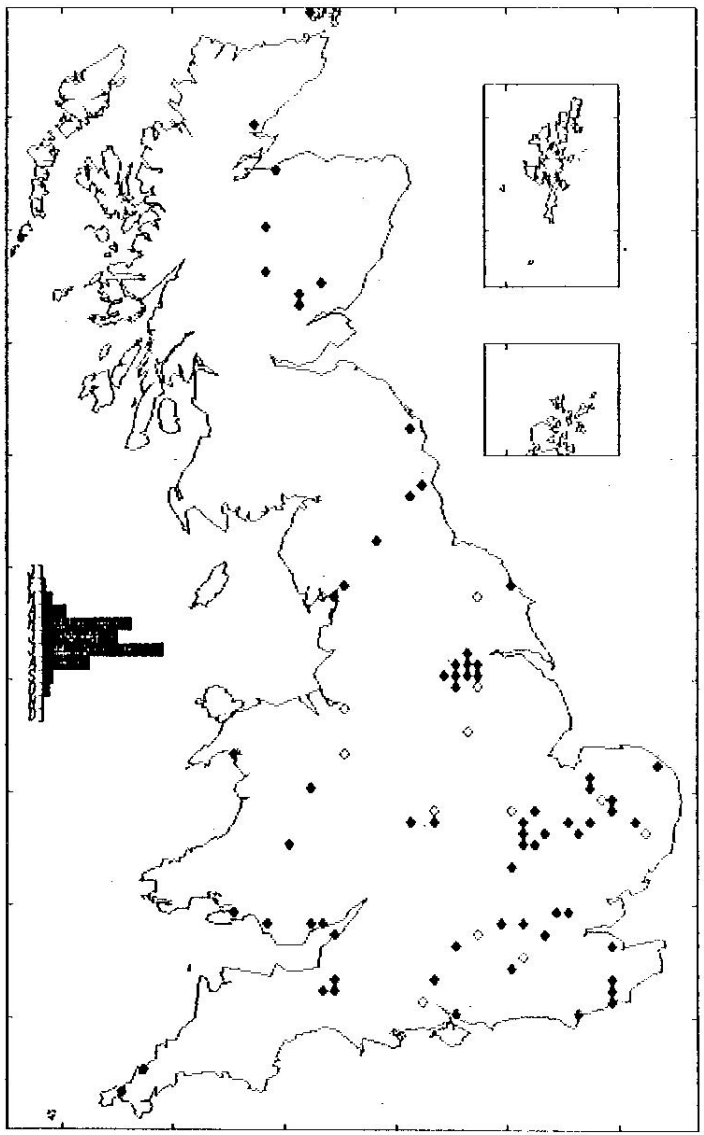
Dichetophora obliterata (F.) Larval biology unknown, adults in grassland, wetland and coastal dunes.



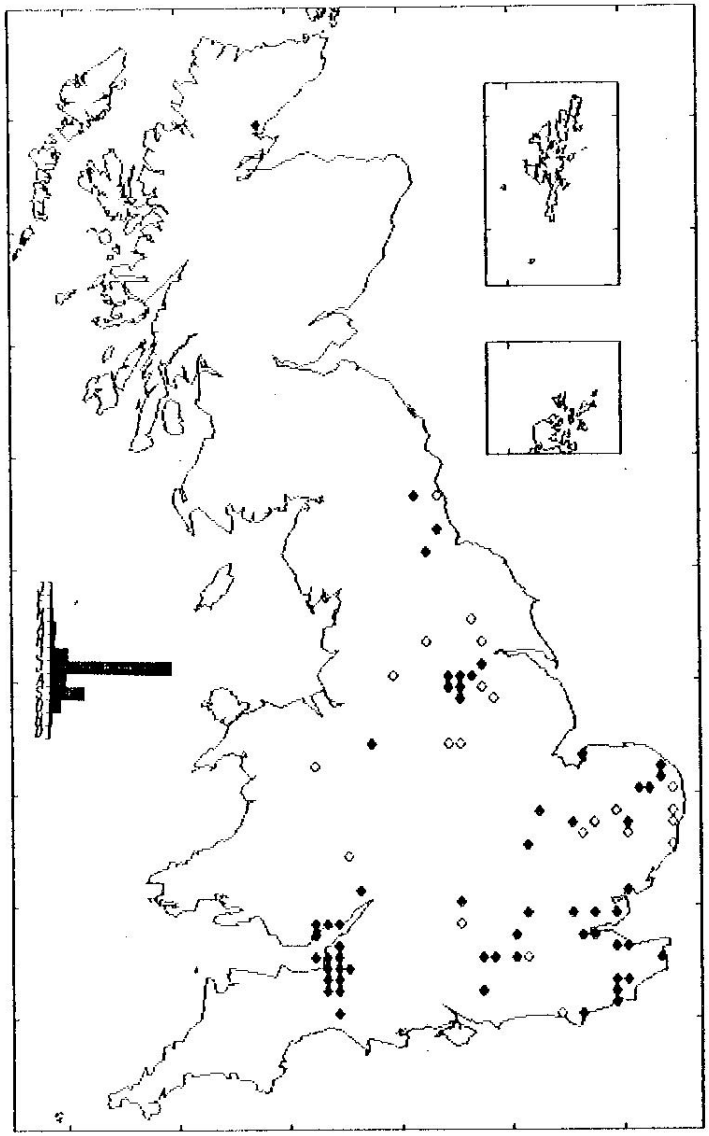
Dictya umbrarum (L.) Larvae predators of aquatic snails, adults typically found in peatland habitats, especially in association with base-rich flushes.



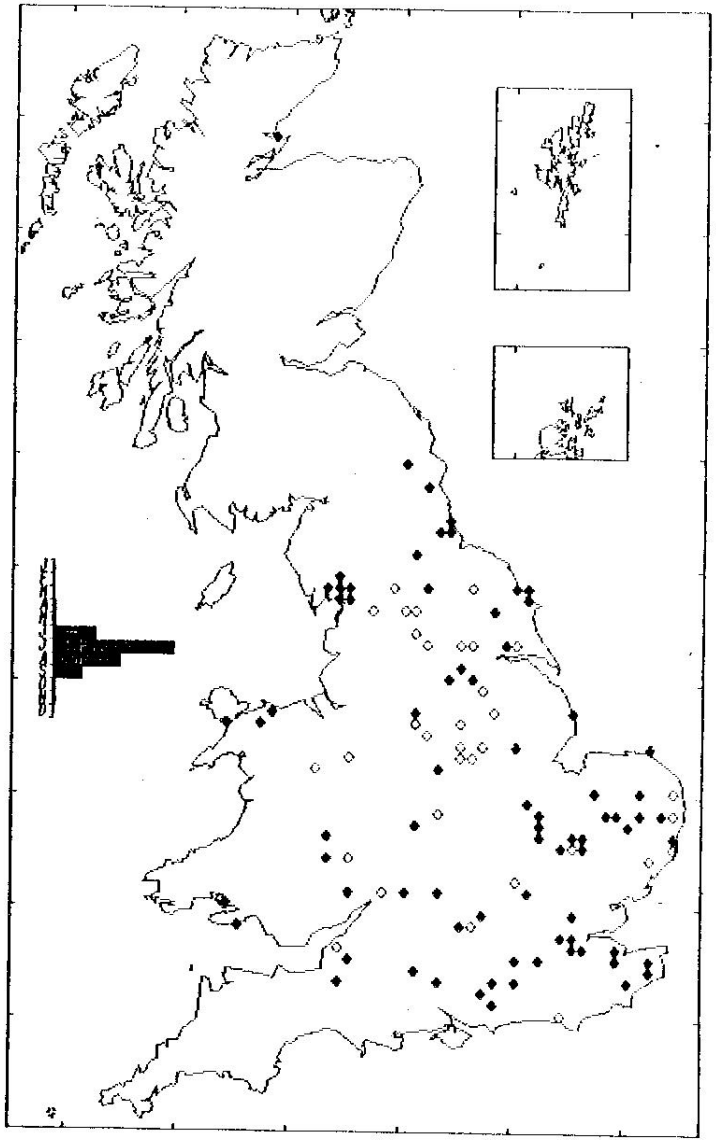
Ectinocera borealis Zett. Larval biology unknown, adults typically in Caledonian pine forest in Scotland, but there are records for northern England, north Wales and Devon in areas with other types of woodland.



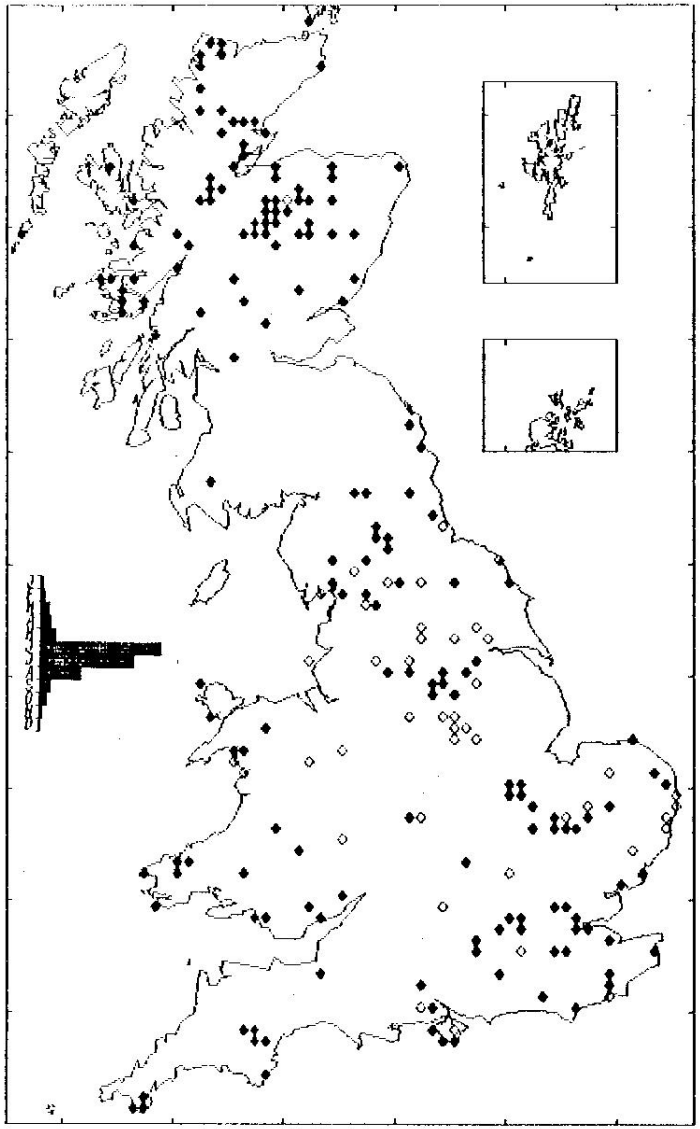
Elgiva cucularia (L.) Larvae predators of aquatic snails, adults near ponds and ditches, and in a variety of wetland habitats.



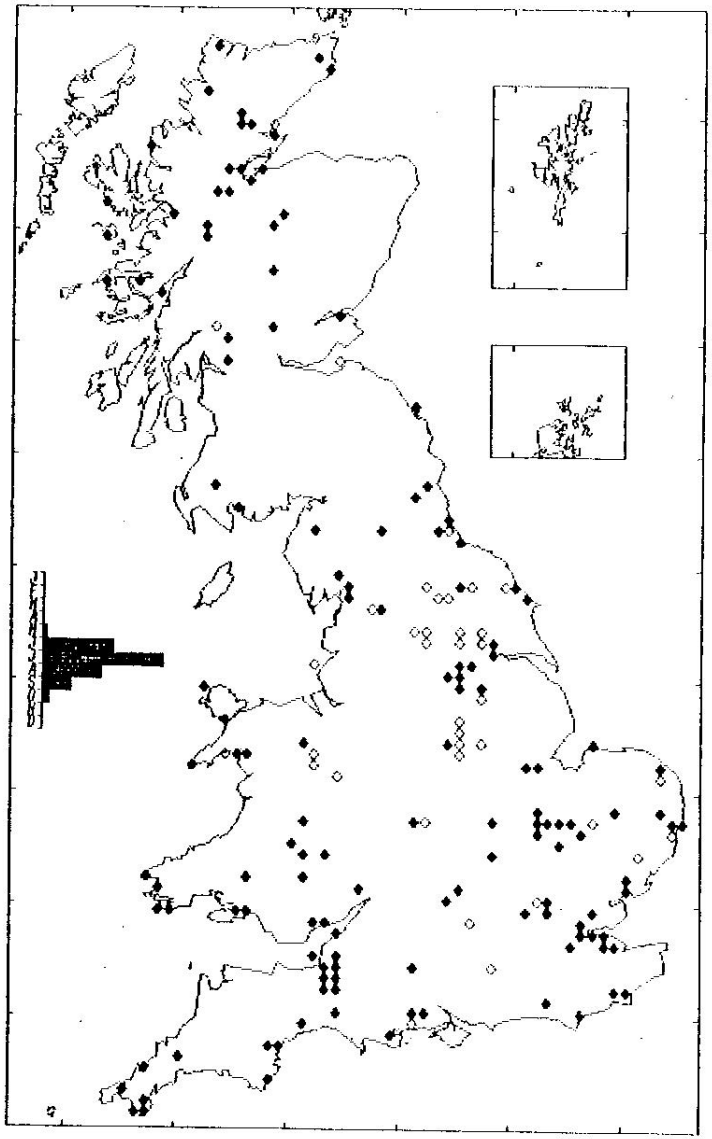
Elgiva solicita (Harris) Larvae predators of aquatic snails, adults near ponds and ditches, and in a variety of wetland habitats.



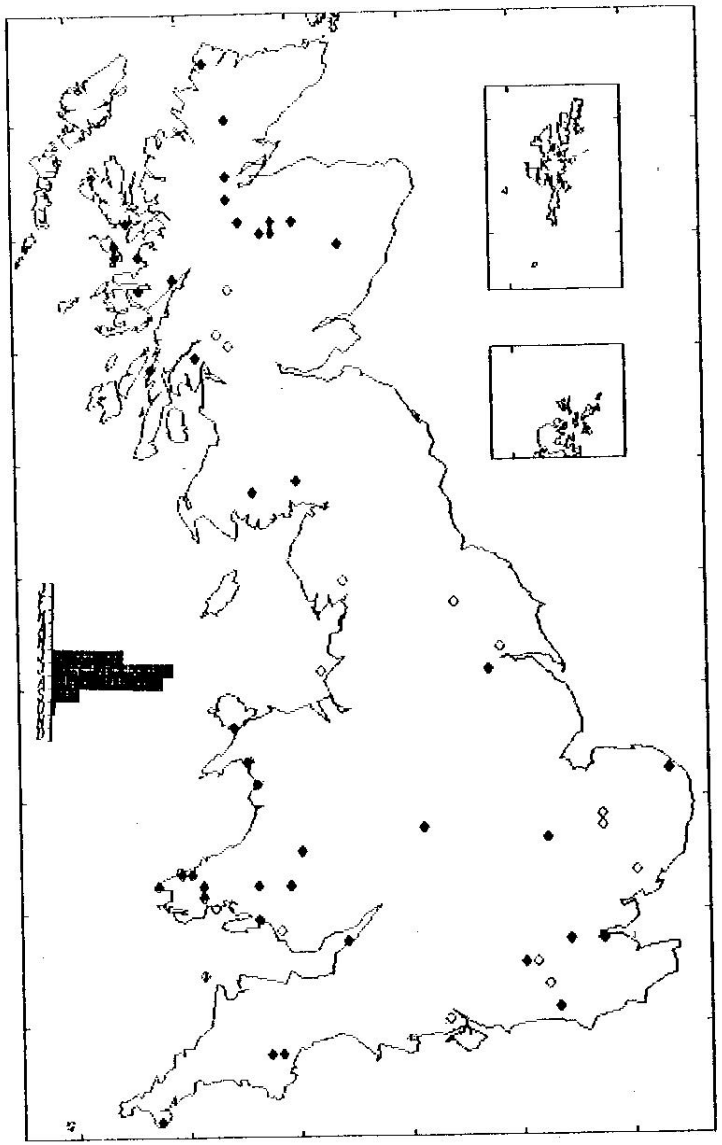
Euthycera fumigata (Scop.) Larval biology unknown, adults in dry calcareous grasslands, fens and other wetlands, at wood margins and on coastal dunes.



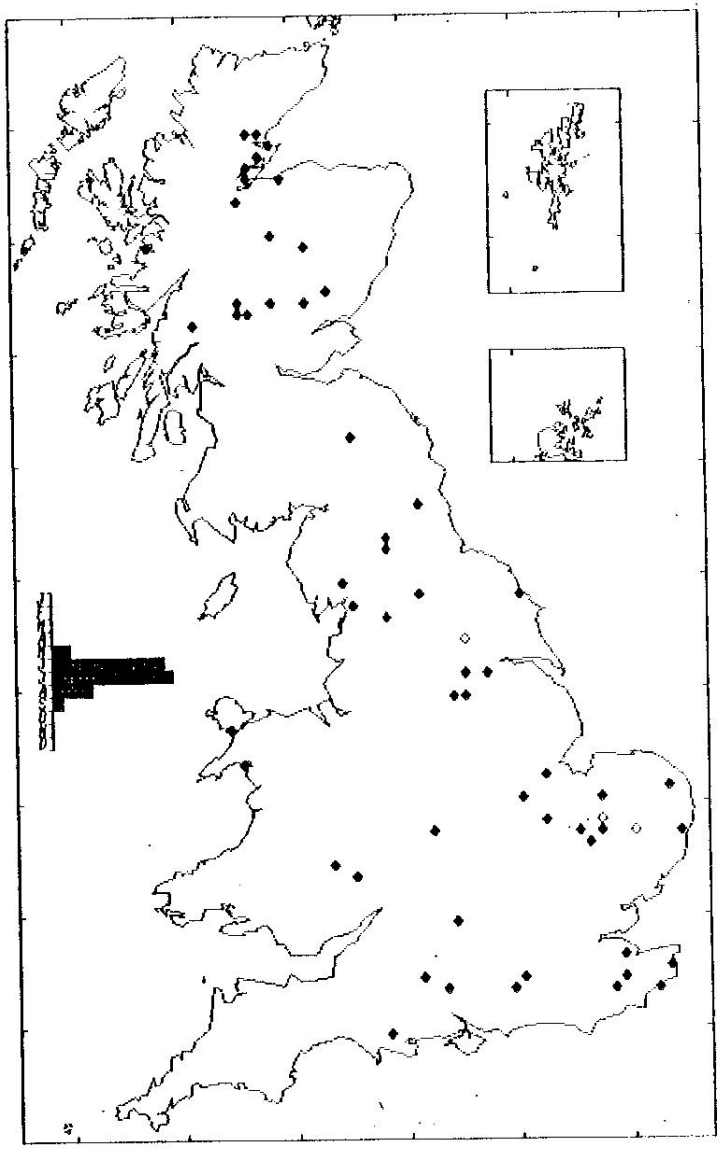
Hydromya dorsalis (F.) Larvae predators of aquatic snails, adults beside ponds and ditches in a wide variety of wetland habitats including quite acid conditions.



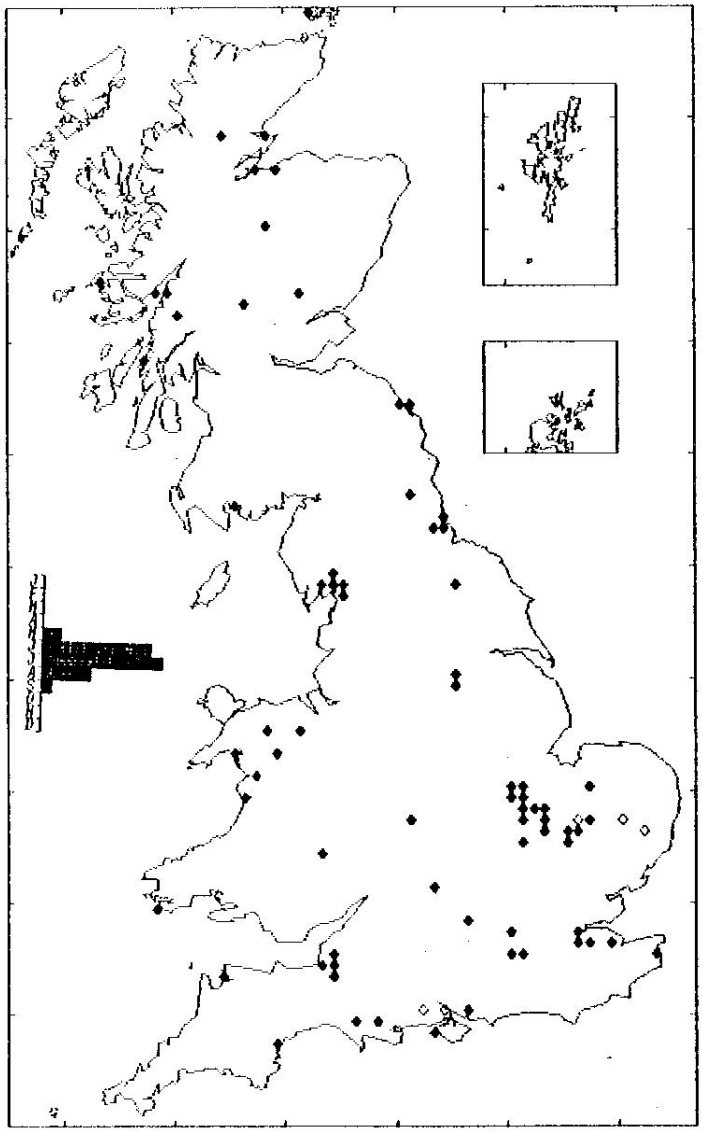
Ilione albiseta (Scop.) Larvae predators of aquatic snails, adults in a wide variety of wetland habitats including bogs where conditions are not very acid.



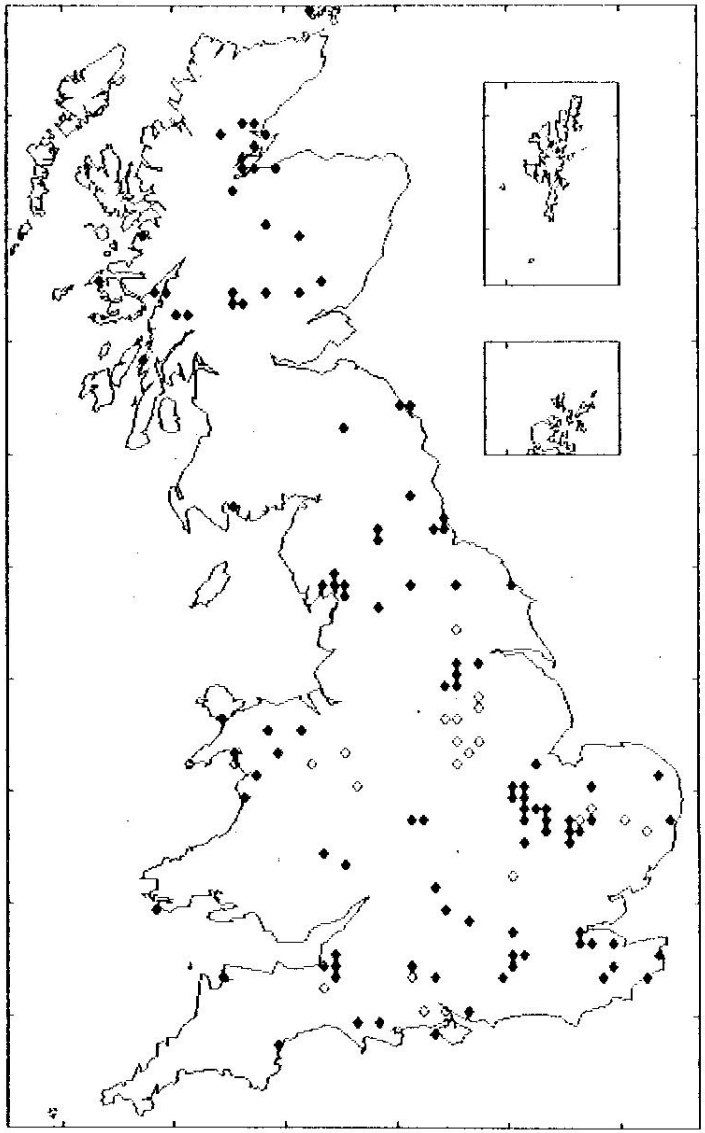
Ilione lineata (Fall.) Larvae parasites and predators of pea mussels (Sphaeriidae), adults typically in mesotrophic peatland habitats, more rarely in mineral marshes.



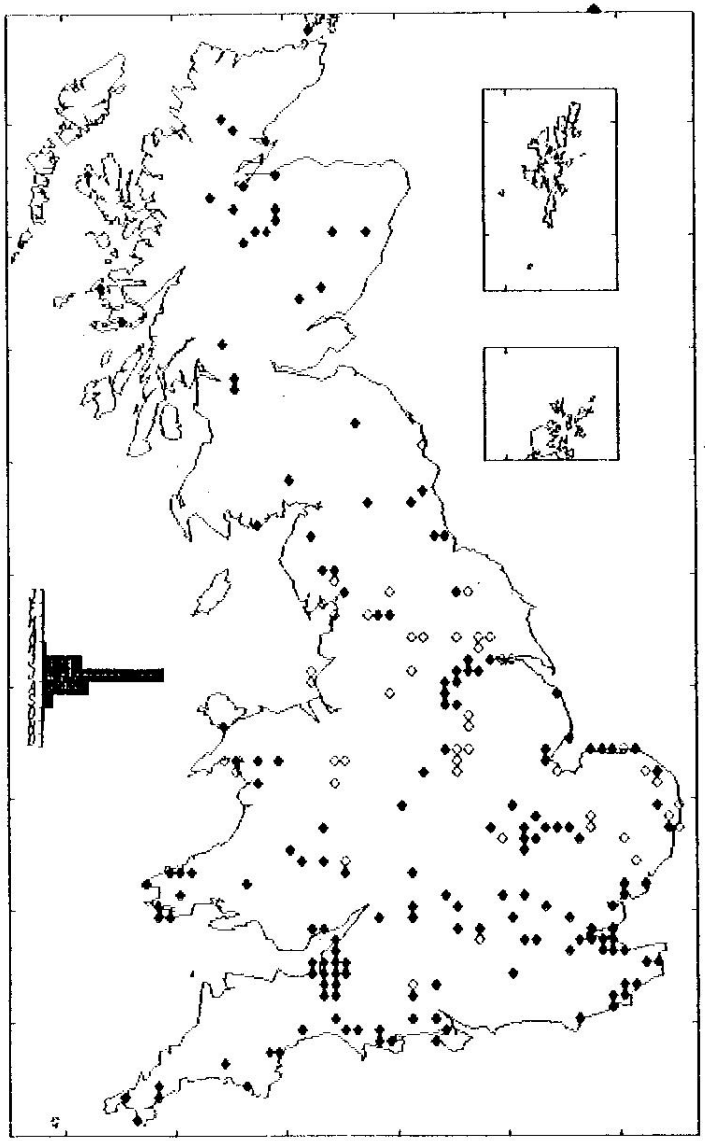
Limnia paludicola Elberg Larval biology unknown, adults in a wide range of mesotrophic wetland habitats.



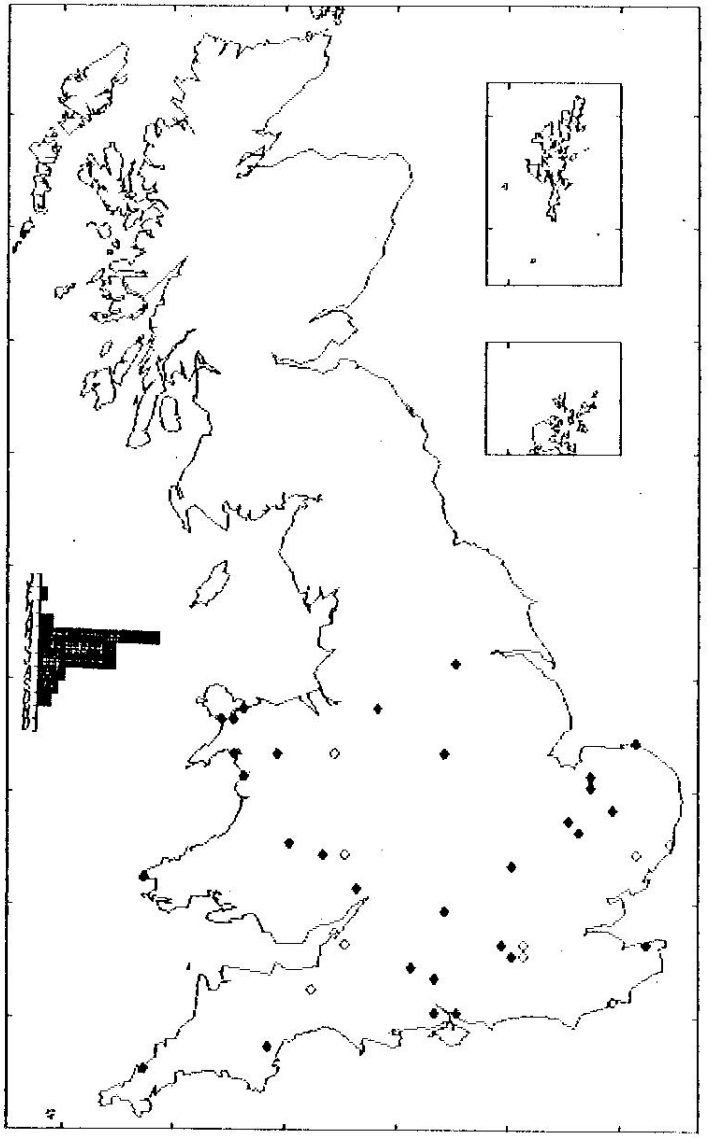
Limnia unguicornis (Scop.) Larval biology little known (may be Succinea predators), adults in wetland, calcareous grassland and more neutral grasslands.



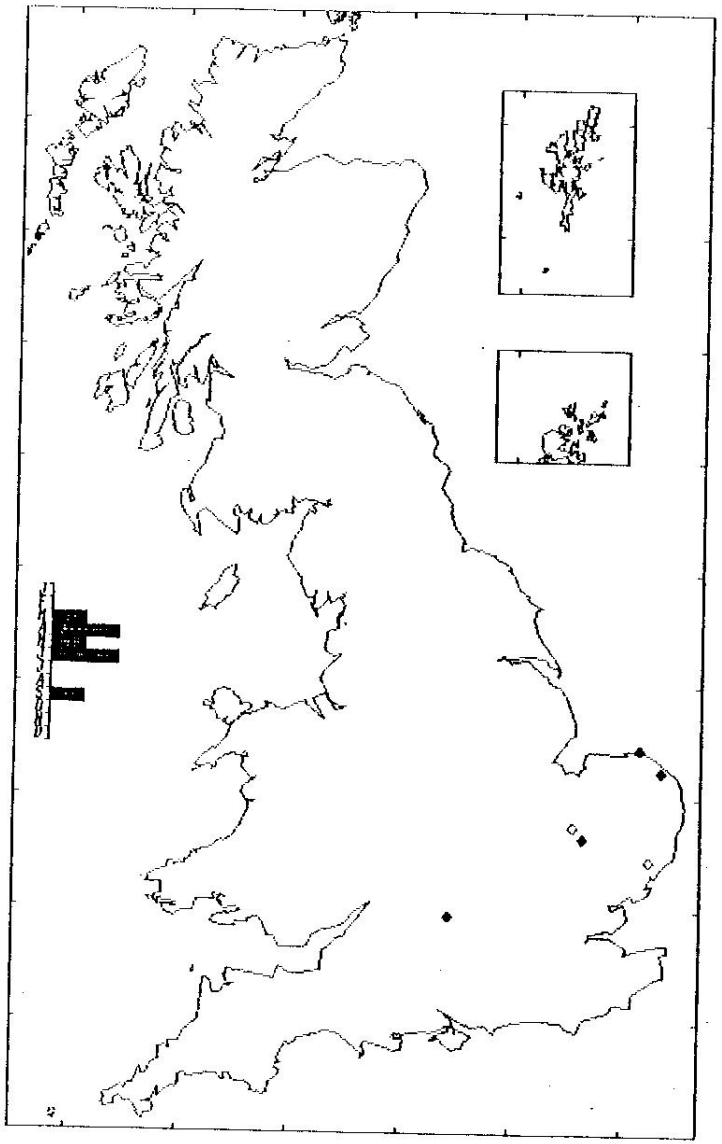
Combined records of both Limnia species.



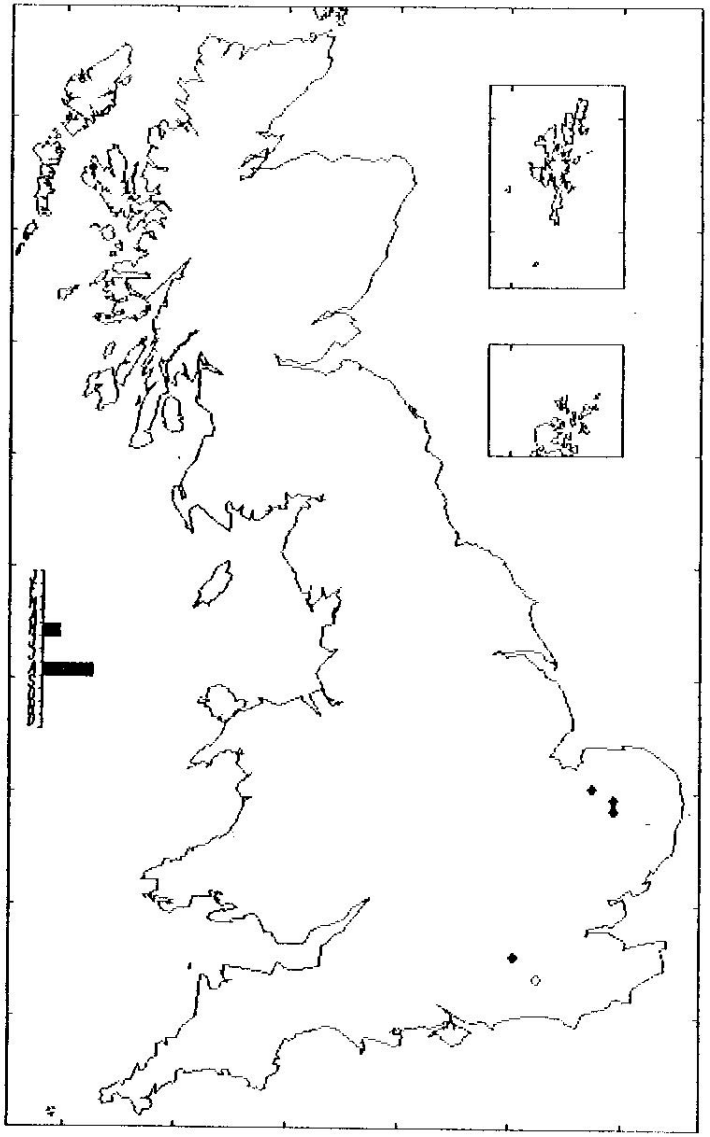
Pherbina coryleti (Scop.) Larvae predators of snails, adults in a wide range of wetland habitats.



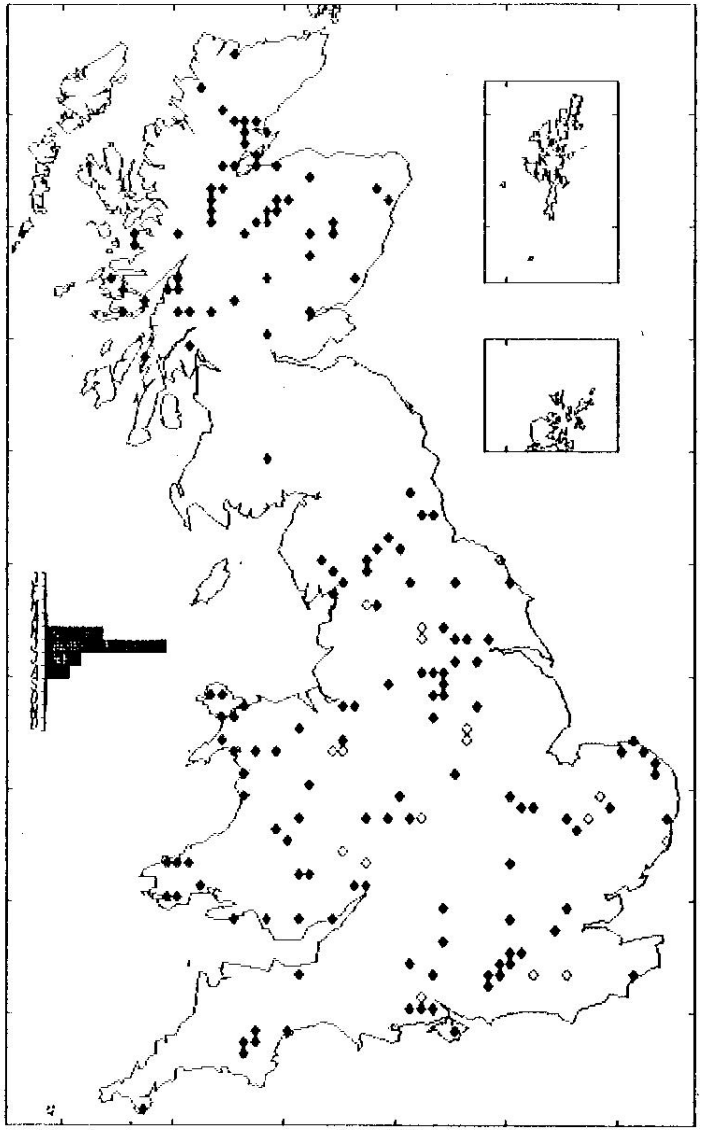
Psacadina verbekei Rozkosny Larvae snail predators, adults in fens and sometimes mesotrophic wetlands.



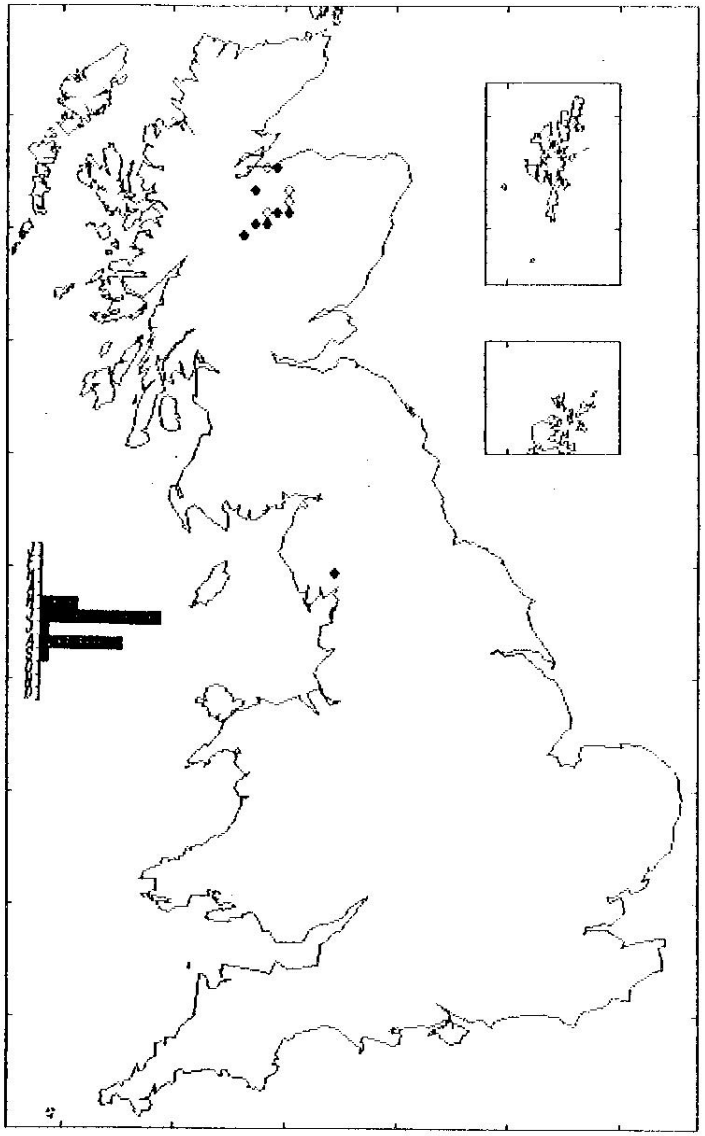
Psacadina vittigera (Schiner) Larvae probably predators of aquatic snails, adults typically in ancient fens.



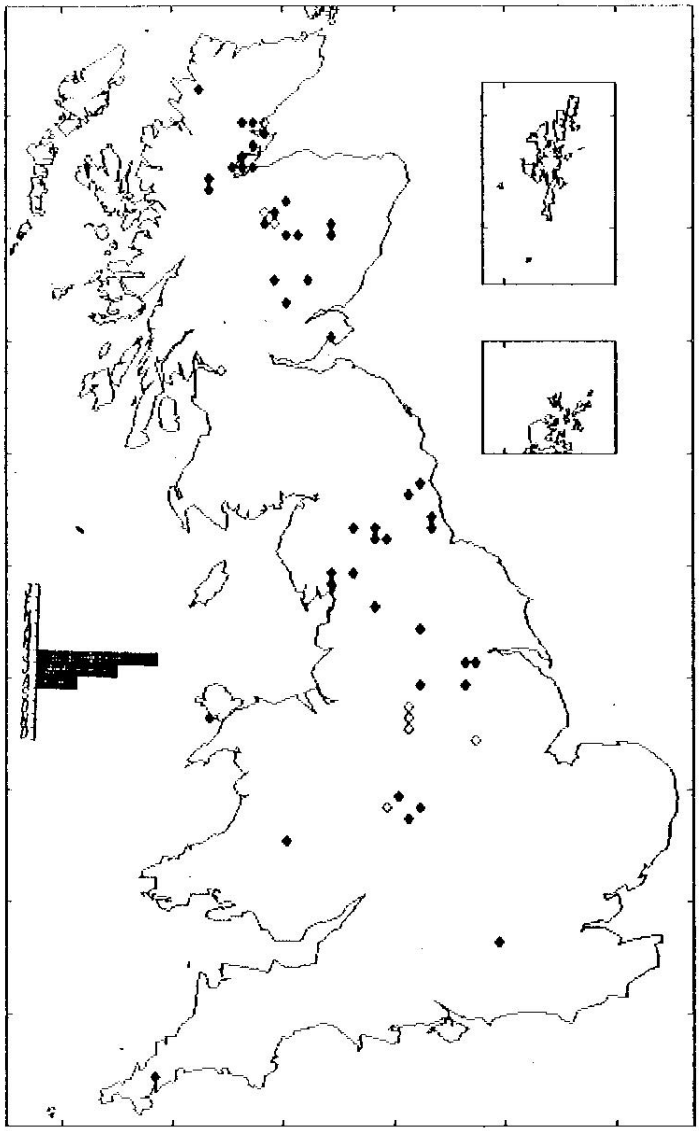
Psacadina zernyi (Mayer) Larvae probably snail predators, adults typically near pools in mineral marshes, with several East Anglian records from sites with pingo pools.



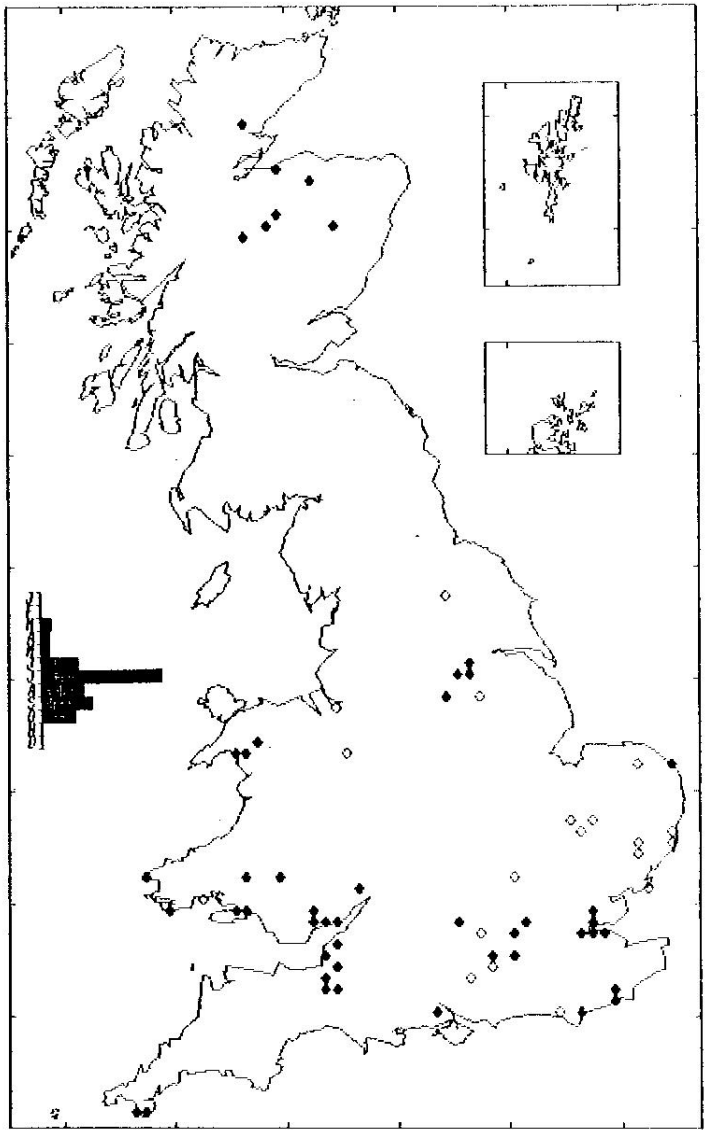
Renocera pallida (Fall.) Larval biology unknown (North American Renocera have been recorded as predators of pea mussels, Sphaeriidae), adults are found in alder carr, wet woods and other wetlands.



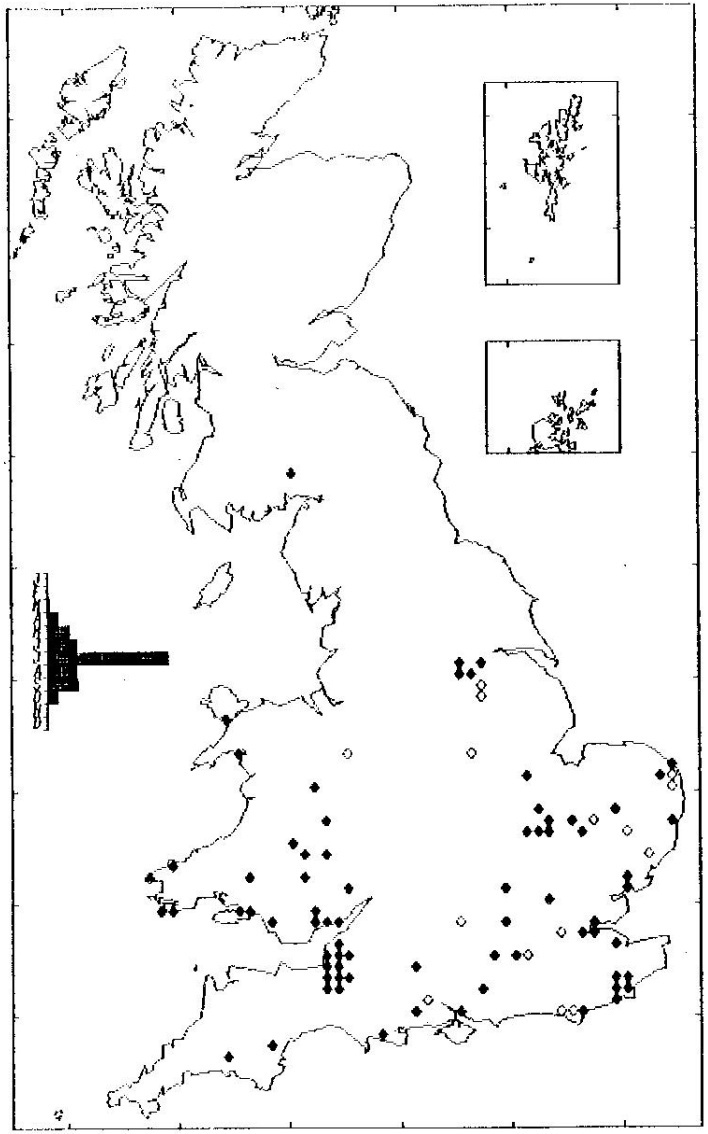
Renocera striata (Mg.) Larval biology unknown, adults typically in flushed peatland conditions.



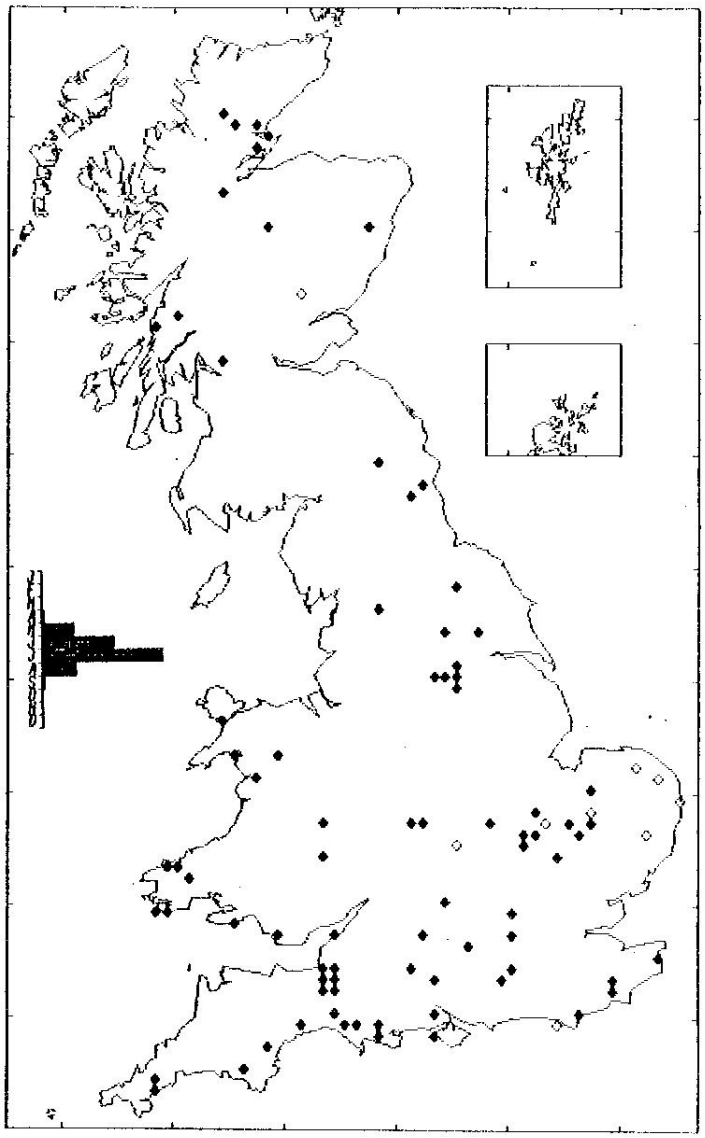
Renocera stroblii Hendel Larval biology unknown, adults typically in flushed peatland conditions.



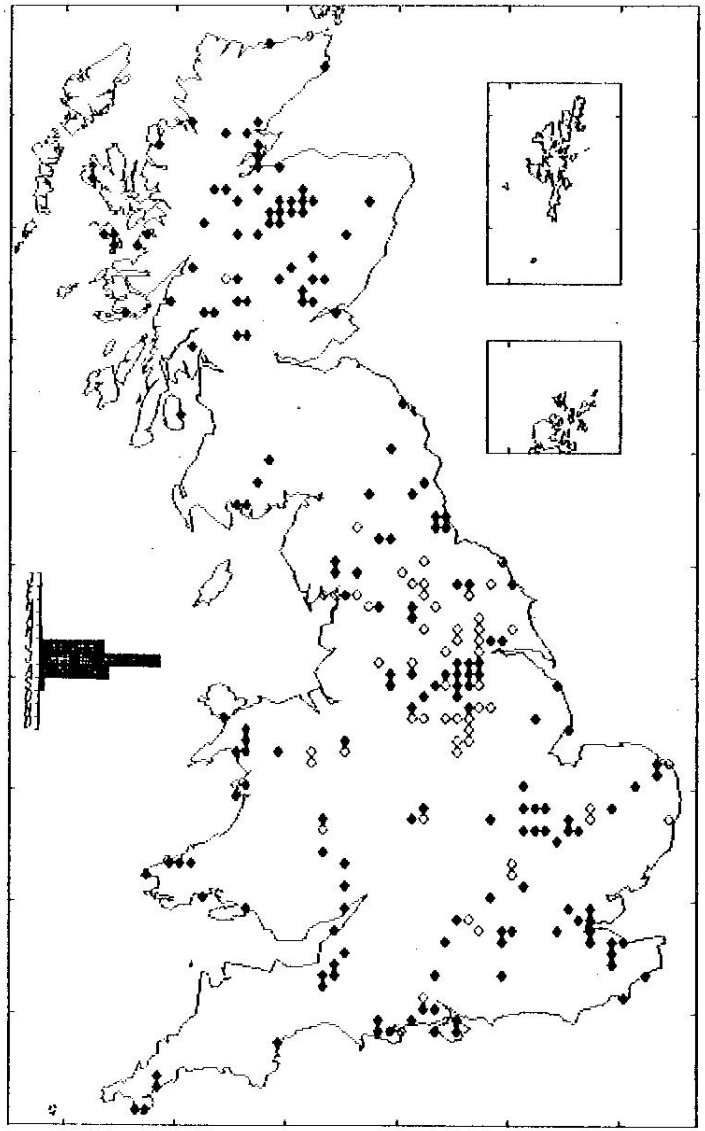
Sepedon sphegea (F.) Larvae predators of aquatic snails, adults usually near mesotrophic ponds and ditches.



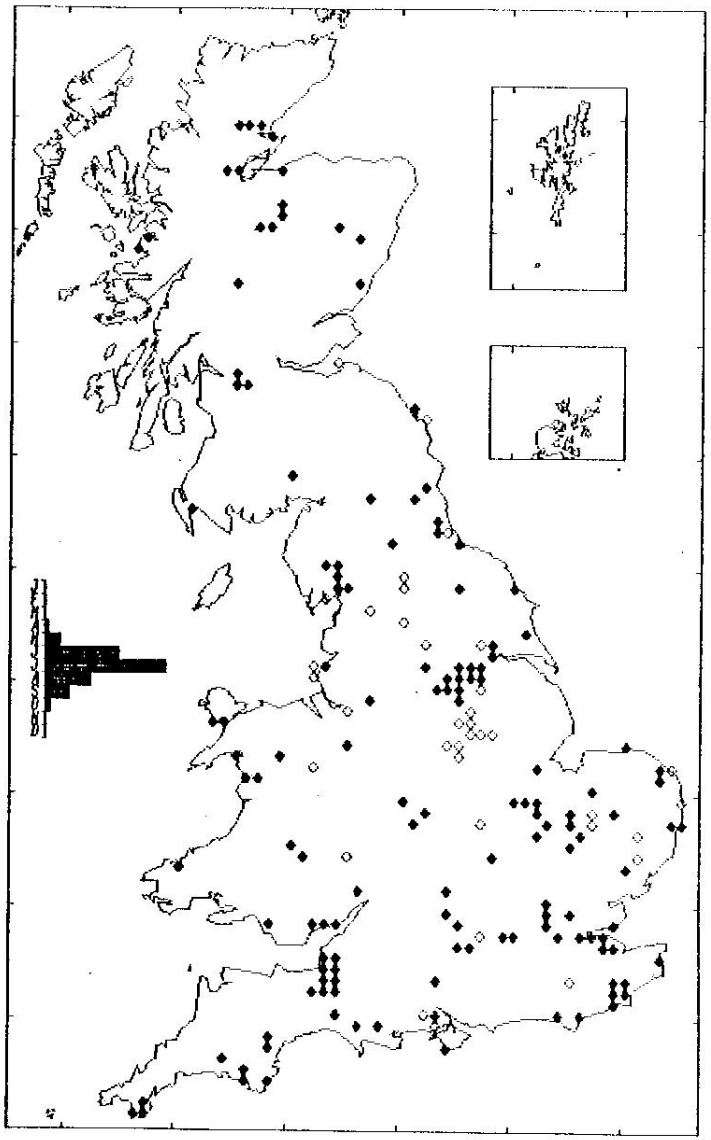
Sepedon spinipes (Scop.) Larvae predators of aquatic snails Planorbis planorbis, adults near mesotrophic ponds and ditches in a variety of wetland habitats including levels marshes.



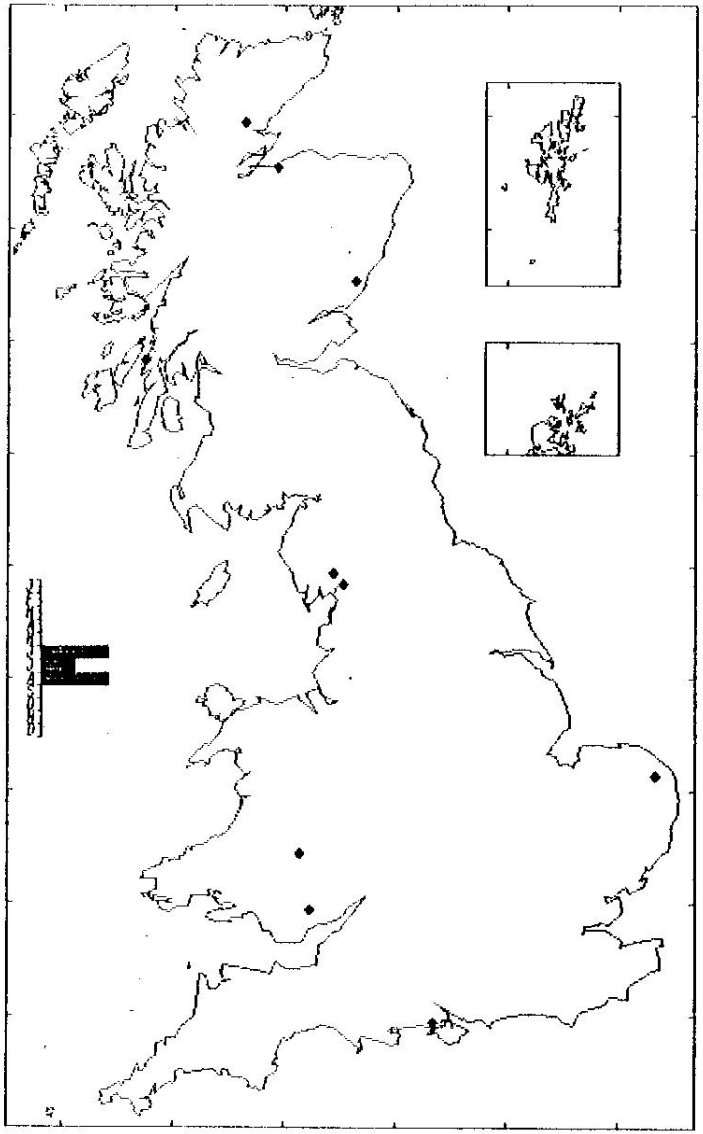
Tetanocera arrogans (Mg.) Larvae predators of snails at margins of water bodies, adults in a variety of mesotrophic wetlands including levels marshes.



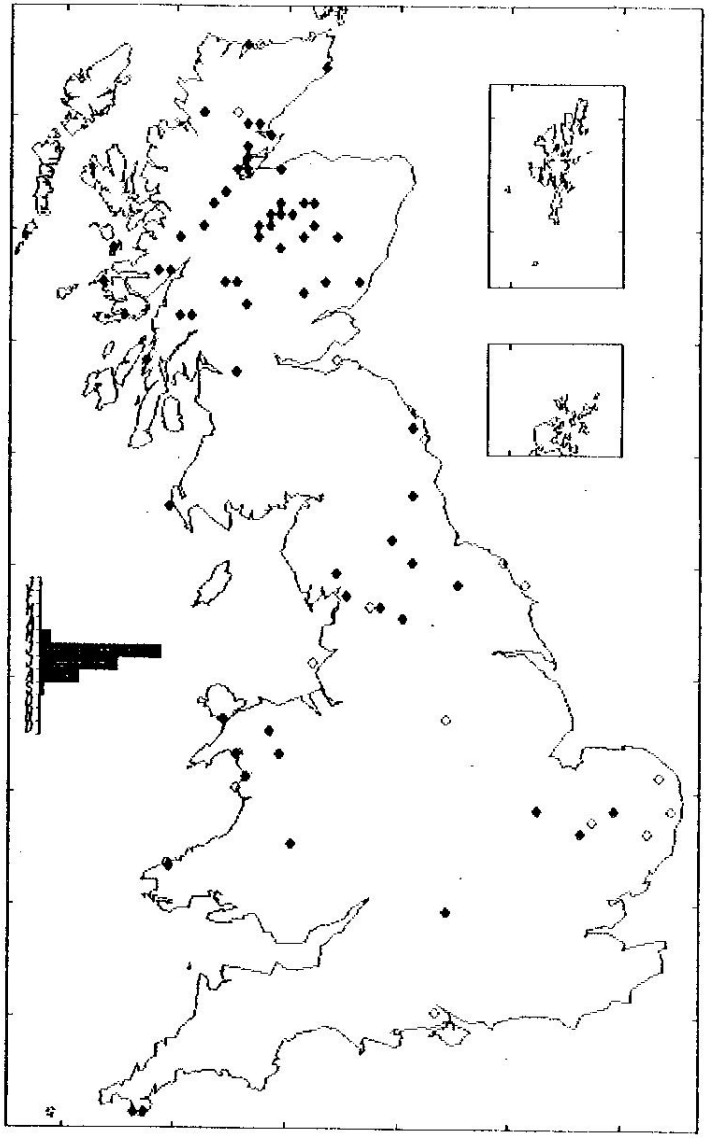
Tetanocera elata (F.) Larvae predators of slugs, adults in grasslands, wetlands and woodlands.



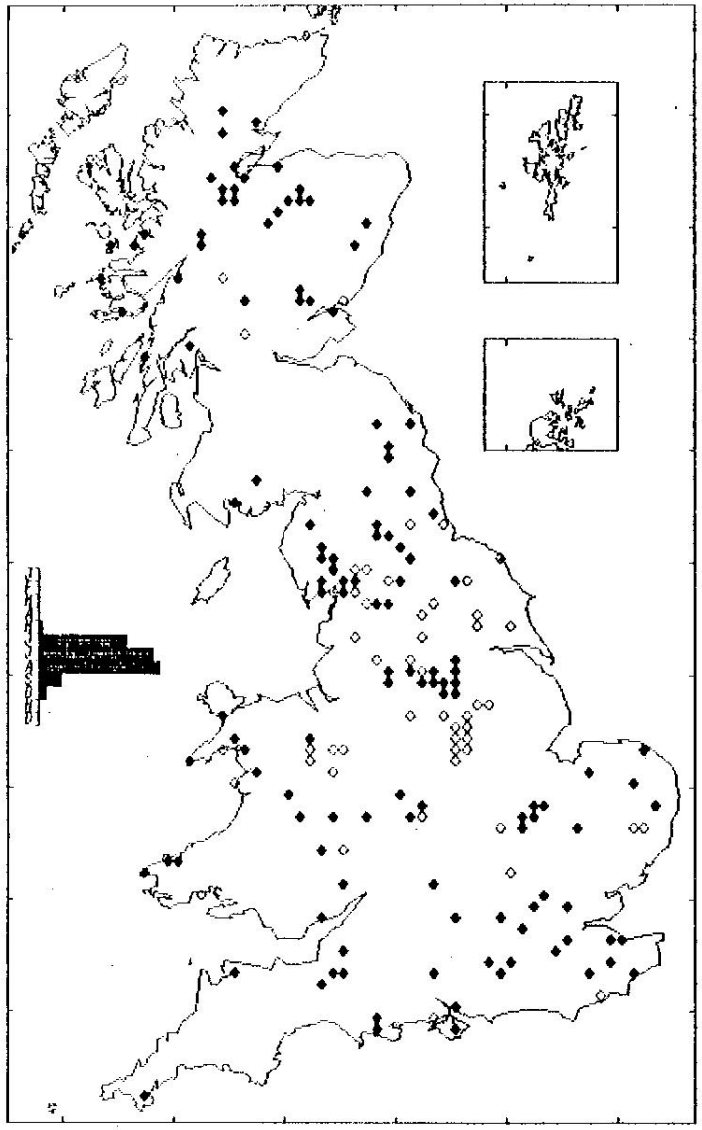
Tetanocera ferruginea Fall. Larvae predators of aquatic snails, adults in a variety of mesotrophic wetlands.



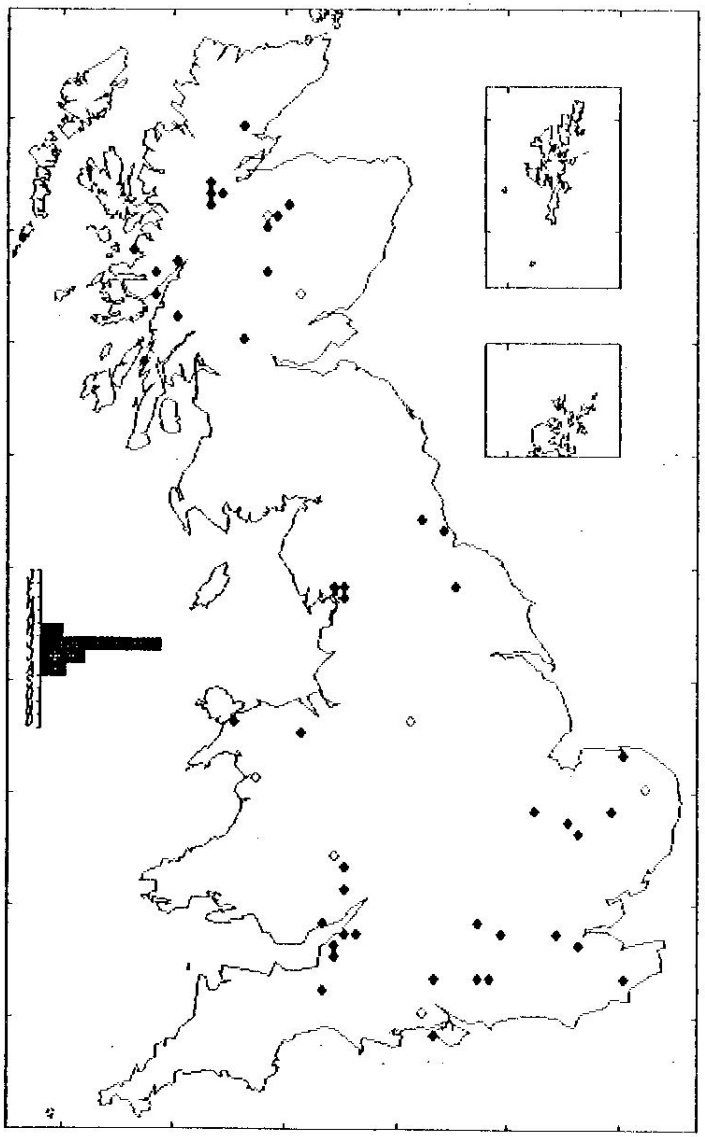
Tetanocera freyi Stackelberg Larval biology unknown, adults in fens and Carex swamps.



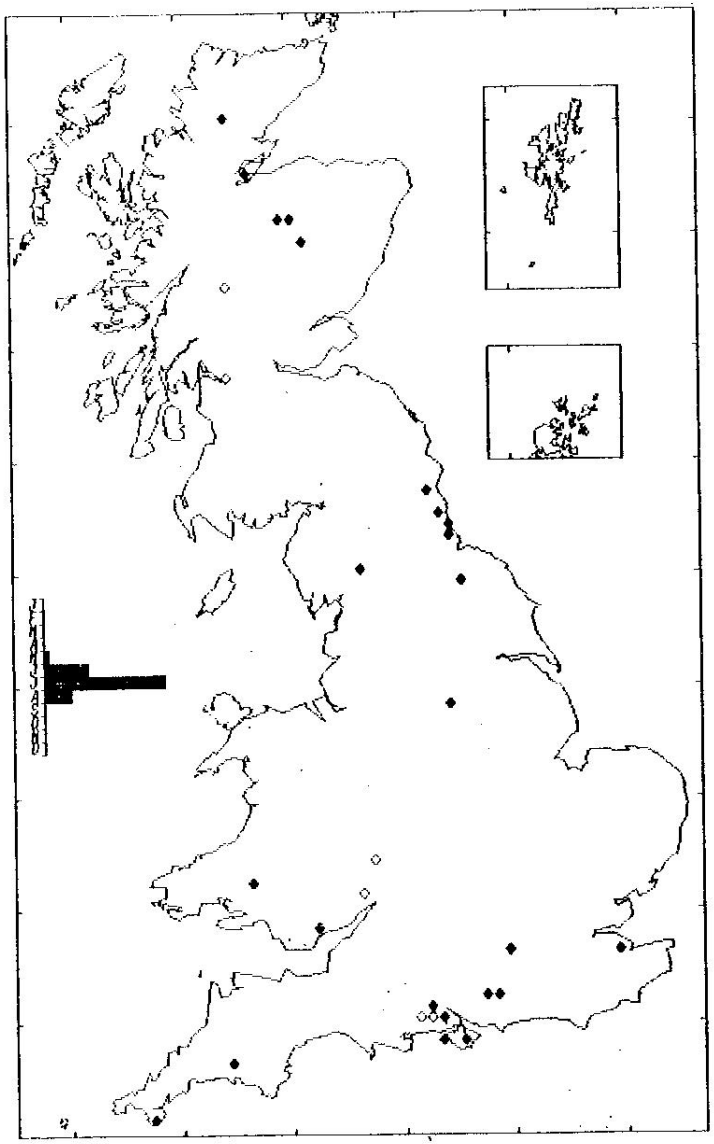
Tetanocera fuscinervis (Zett.) Larvae predators of aquatic snails, adults often in flushed peatlands or near pools.



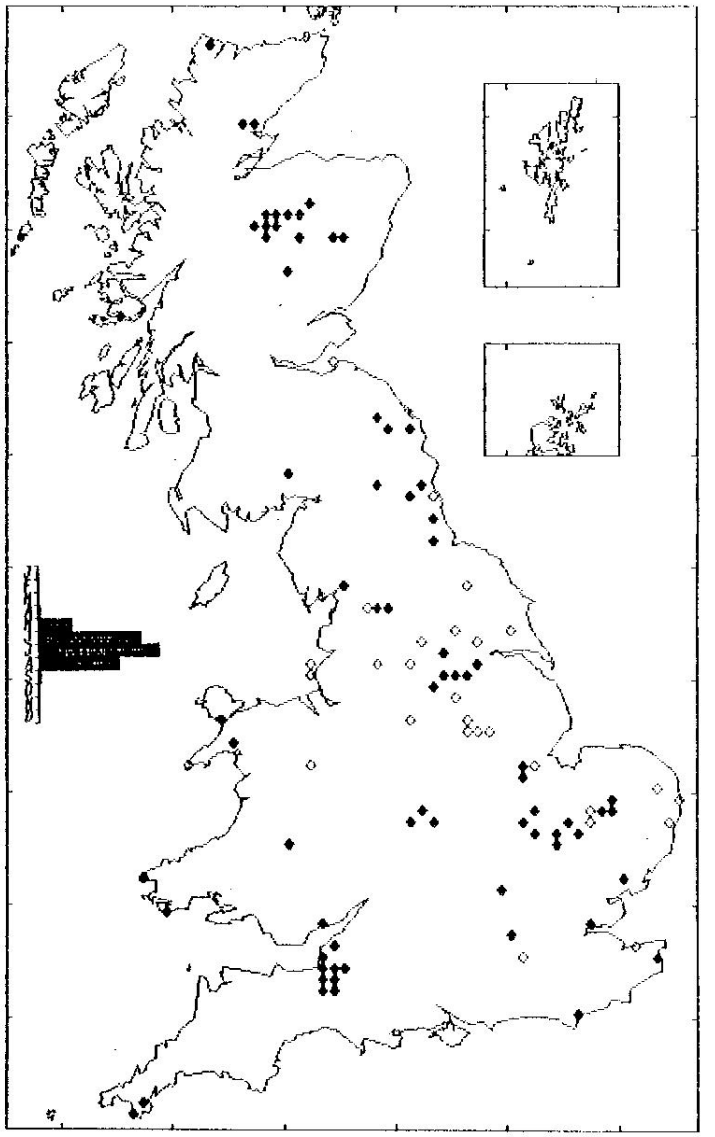
Tetanocera hyalipennis Roser Larvae predators of aquatic snails, adults typically in Alnus or Salix swamps.



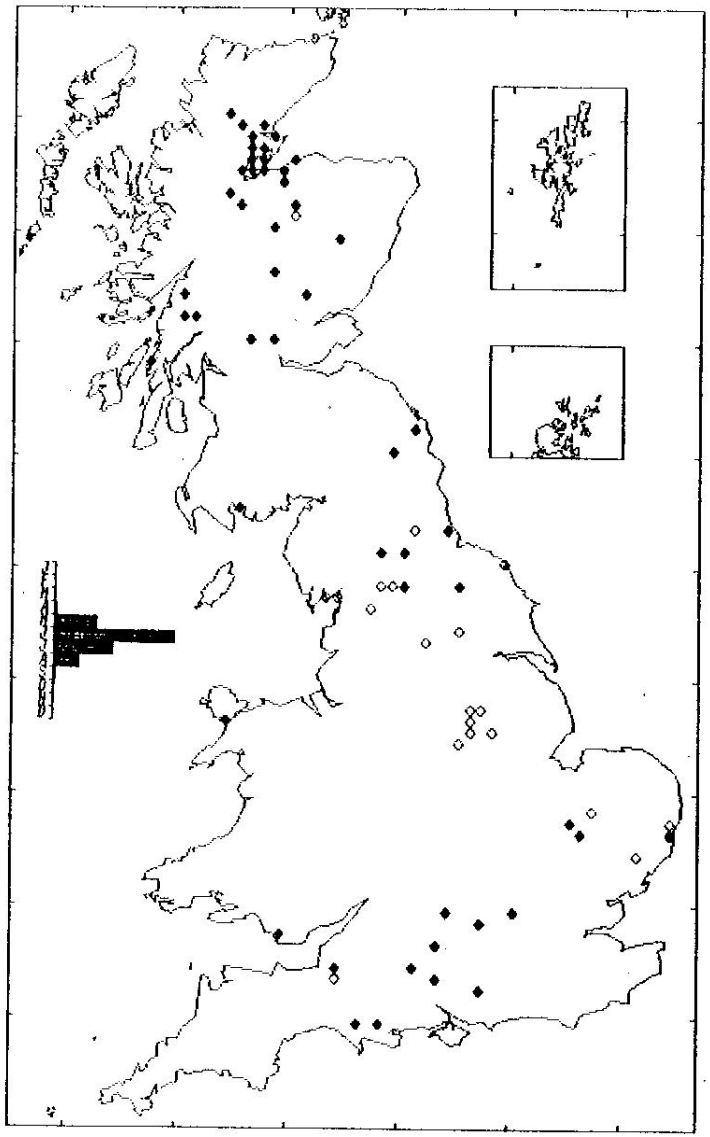
Tetanocera phyllophora Melander Larvae predators of terrestrial snails, adults in woodlands or at their margins often with calcareous conditions.



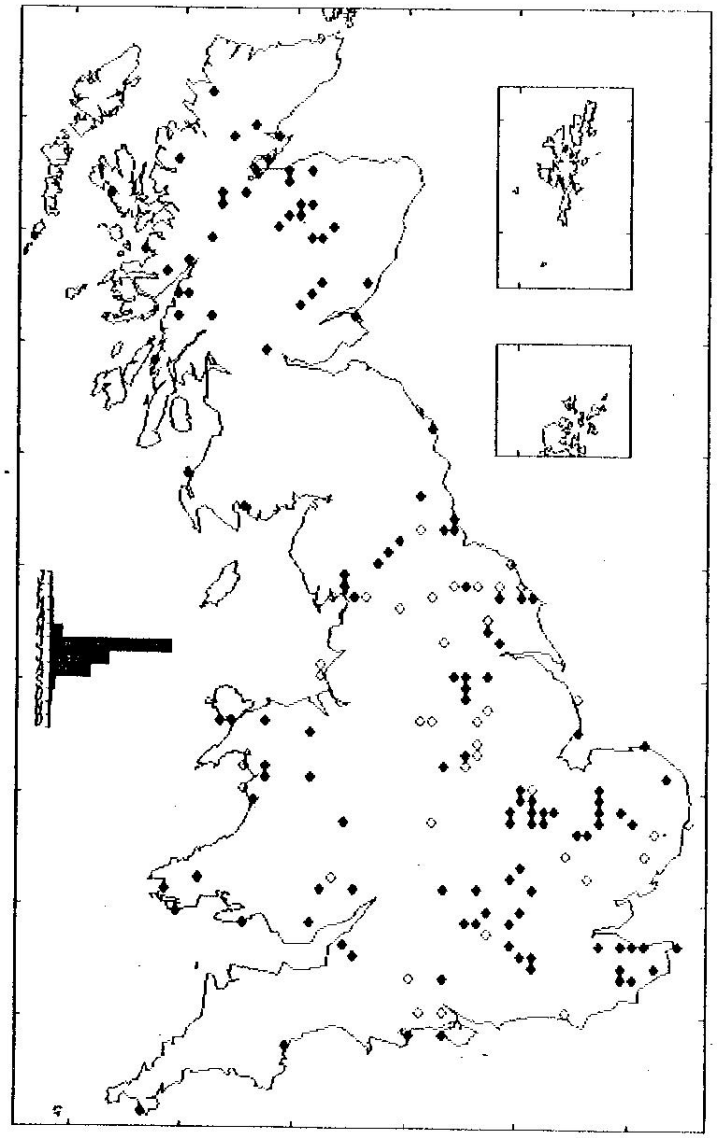
Tetanocera punctifrons Rondani Larval biology unknown, adults in wetland habitats often near woodland.



Tetanocera robusta Loew Larvae predators of aquatic snails, adults in a variety of eutrophic-mesotrophic wetlands, including levels marshes.



Tetanocera silvatica Mg. Larvae probably predators of exposed aquatic snails, adults typically in carr woodland often in flushed conditions.



Trypetoptera punctulata (Scop.) Larval biology unknown, adults in a very wide range of habitats including calcareous grasslands, wetlands, woodlands and uplands.

A note on "The Sciomyzidae (Diptera) of Fennoscandia and Denmark" by R. Rozkosny (1984) Published by E.J. Brill/Scandinavian Science Press Ltd.

Since the circulation of Sciomyzidae Newsletter No. 1 in June 1983 volume 14 of "Fauna Entomologica Scandinavica" has been published which revises the Sciomyzidae of Denmark, Finland, Norway and Sweden. This includes many figures of the male genitalia together with wing photographs of the Scandinavian species, and it will be of considerable value to anybody wishing to identify British Sciomyzidae. The book is available from E.W.Classey, or direct from the publishers E.J. Brill, PO Box 9000, 2300 Leiden, The Netherlands.

This book, used in conjunction with Sciomyzidae Newsletter No. 1, should enable the majority of British Sciomyzidae to be accurately identified. However, there will still be difficulties with some females in the genera *Colobaea*, *Psacadina*, *Pteromicra* and *Tetanocera* which can only be resolved when further work reveals additional reliable characters.

It should be noted that *Pherbellia obtusa* (Fall.) is listed by Rozkosny (1984) as British, though we are aware of no confirmed records from Britain of this species. Additionally, one British species is not keyed or figured (*Pherbellia knutsoni* Verbeke) and three more British species are keyed but not figured (*Salticella fasciata* (Mg.), *Dichetophora obliterata* (F.) and *Psacadina vittigera* (Schiner)).