Hoverfly Newsletter

Number 3 - April 1984

This is the age of Hoverfly books with the publication of V.S. van der Goot's account of the NW European species in 1981, N.A. Violovitch's Siberian Syrphidae early in 1983 and with, please note, Ernst Torpe's book on those of Denmark due to appear in 1984. Alan Stubbs' and Steven Falk's splendid book no doubt is now to be found on the shelves of all the Diptera Recording Scheme members but, almost more importantly, it is to be hoped also on the shelves of people not previously conversant with the British Hoverflies. As a result of this work we are now in a position to forge ahead with the assemblage of high quality information both from our personal observations and from existing museum collections. On the latter point one might note that with very little practice anyone should soon be able to set about validating their local museum collections and sending in species lists with locality data (and grid references, please!) on BRC cards. We look forward to a spate of information.

Philip F Entwistle

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Other Hoverfly Recording Schemes

We are not alone in Europe in mapping syrphid distribution. For instance Dr Ernst Torpe has already drawn up maps for the 262 Danish species and a sample of these is included here. These maps will appear in Dr Torpe's book 'De danske Svirrefluer' which will be published this year. Also presented is a summary map of the numbers of species recorded for each square. In some squares over 100 species have been noted. Recording work in Denmark will continue, hopefully at a more intense level after the publication of the book on Danish hoverflies.

In the Netherlands the hoverfly recording is part of the European Invertebrate Survey. At present the scheme has the co-operation of about 30 dipterists. Twenty private and 8 museum collections have also been scanned. The scheme is proceeding at about 10 species a year and by now it seems likely the Eristalinae and Merodontini will have been completed. The distribution of four species of Anasimyia are shown here. The Netherlands scheme is being co-ordinated by Dr A Berendregt (see Berendregt, A. (1981), The distribution of four species of the genus Anasimyia in the Netherlands (Diptera, Syrphidae), Nieuwsbrief European Invertebrate Survey-Nederland, 10, 99-100). No doubt this scheme is receiving considerable impetus as a result of the publication of Dr V.S.van der Goot's 'De zweefuliegen van Noordwest-Europa en Europees Rusland, in het bijzonder van der Benelux' (1981).

Instructions for use of Hoverfly Recording Scheme Recording Cards, by Paul Harding

Please try to follow these instructions when completing RA33, GEN 7 or GEN 8 cards. When completing cards, try to use black ink, because pale blue ink and faint pencil do not reproduce when cards are photo-copied or microfilmed. Please write legibly (see next page).

LOCALITY — Name of site with distance and direction from nearest town or village marked on the appropriate 1:50,000 O.S. map, Irish O.S. map or equivalent.

VICE-COUNTRY NAME and V.-C. NO. — Enter the Watson/Praeger vice-country name, if known. Vice-country maps published by the Ray Society are available from BRC, Monks Wood; send stamped self-addressed envelope (minimum size 9½" x 11½", postage 29p).

Irish v.-c. numbers must be prefixed H.

GRID REFERENCE — Using the 8 spaces provided, fill in the grid reference, e.g. 52/431746

5	2	4	3	1	7	4	6

or if only 1 km grid reference known,

5	2	4	3	-	7	4	-

or if only 10 km grid reference known,

5	2	4	-	-	7	-	-

NB. The first two boxes are for the 100 km square numerical equivalents of the grid letters. DO NOT USE GRID LETTERS. A map showing the numerical equivalents is available from BRC.

"Absolute" grid references in the form 5431 2746 MUST NOT be used.

RECORDER — Name of person recording the species in the field. The Code No. box is for your Recorder's Number if you know it.

DETERMINER (GEN 7 & 8 only) — Name of person who identified the species recorded on the card, if different from the recorder.

COMPILER (GEN 7 & 8 only) — Name of person filling in the card, if different from the recorder. If the same as the recorder, just enter your initials and Recorder's Number, if known.

DATE — Date on which the species was observed in the field. When a precise date cannot be given, the month and year, or at least the year, should be given. Do not give a span of years e.g. 23 August, 1981.

2	3	0	8	1	9	8	1

ALTITUDE — In metres, to nearest 10 metres (10 feet = 3 metres).

SOURCE — Cross through appropriate box:

Fld. = field record

SOURCE (cont from previous page)

Mus. = museum specimen (state name of museum or give museum code)
NB. Material in private collections must be marked PVT..

Lit. = published record.

State name and location of collection or literature reference in full.

SPECIES LIST — Cross through the name BUT NOT THE NUMBER of each species recorded. Observations of species not included in the list, i.e. rarer migrants, may be noted under "Other species".

SUPPLIES OF CARDS — Supplies of cards for use in the Scheme are obtainable from:

Biological Records Centre
Monks Wood Experimental Station
Abbots Ripton
Huntingdon
Cambs PE17 2LS

Abbots Ripton 381
048 73

Callicera spinolae - Rediscovery and Extinction?, by Ivan Perry

Although a large and conspicuous species, Callicera spinolae has only rarely been found in Britain. The earliest known specimen is a ♂ taken by the Rev H.A. Harris at Thorndon, Suffolk, in 1924. In subsequent years, 3 ♀ were found at various localities in Suffolk, the last one in 1947.

In 1971, whilst still a relative newcomer to the hobby, I was surprised to find a ♀ C.spinolae feeding on ivy flowers on 19 September, near my home at Lode in Cambridgeshire. On exactly the same date a year later, a ♀ was taken at East Rudham, Norfolk, by the late Cyril Hammond. From 1973 to 1978 it was seen every year at Lode, feeding on ivy on dates ranging from 8 September to 7 October. Normally only ♀s were present and only one ♂ was captured during this time. The habitat was unfortunately largely destroyed when the large elm trees which supported the ivy contracted Dutch elm disease and had to be removed. However, in 1979 I managed to find another locality for C.spinolae on the Gog Magog hills just outside Cambridge, when a number of specimens were seen feeding on ivy growing on an old wall, again nearly all those seen were ♀s but one ♂ was captured on 28 September 1979. In 1980 only one very undersized ♀ was seen at this site and this was the last time I saw C.spinolae, although it has been searched for every year since.

The second Cambridgeshire locality was largely beech woodland; but it did contain a few large elms which succumbed to disease, and were removed at about the same time that C.spinolae disappeared. C.rufa has been reared from tree rot holes (R.L. Coe; Entomologist, 1938 vol 71, 97-102; 1939, vol 72, 228-231 and 1941, vol 74, 131-132) and a similar breeding location for C.spinolae seems likely. Than an uncommon wood breeding hoverfly should apparently be restricted to East Anglia is most unusual, and points to a preference for tree species other than oak and beech, or it would surely have been found in the South of England. If elm is the chosen species, as seems likely, it would tie in well with its disappearance from the two Cambridgeshire localities. One interesting parallel is that as C.spinolae has disappeared from ivy blossom, hornets have made a big comeback, patrolling the flower heads and pouncing on as many wasps as they can. Now C.spinolae in flight and appearance mimicked the wasp very well; could it have been their downfall? I do not really think so, but I do believe that the removal of elms from the countryside may well have brought about the extinction of one of our loveliest hoverflies. I still hope that it will reappear, but somehow I do not think that ivy blossom is going to ever be quite the same again.

Microdon - further notes

Since circulation of the 'Plea for collection of information on the distribution of Microdon in Britain' in October 1982 readers may be interested to know that some information has come in.

Microdon mutabilis. In my review I was remiss in having omitted reference to John A.G. Breen's account of Microdon in Ireland (1977, A note on the species of Microdon (Diptera, Syrphidae) in Ireland. Ent. Gaz. 28, 243-244). In this the existance of M.mutabilis at the Burren is confirmed and a record for South Tipperary (R90.20) for a single adult taken on 13 July 1974 is given. Possibly the most surprising record however comes from Boyd Barr in Mull where it appears M.mutibilis is well established in ant nests under large rocks on southfacing slopes. Apart from one old Highland record this extends considerably the northern limit of this species in the British Isles. John Pontin supplies an extra record for Thursley Bog, Surrey, for larvae in association with Myrmica rugindis and John Lamerton completes a north-south traverse of the SW by providing records for SX87 and SS51.

Microdon eggeri. Breen's paper also notes the presence of this species in Ireland at Glengariff Wood (V90.50) in the extreme SW as is usual in nests of Lasius niger. This record is based on empty puparia collected June 1975. Three further records for Shabbington Wood (1950), Chobham Common (1960) and Tunnell Hill near Pirbright (1982), all again in association with L.niger come from John Pontin and from Botley Wood, Hants. (1983) by I.R. Hudson.

Microdon devius. This remains our geographically most restricted species with only one post-1960 record.

Eriozona syrphoides - encore

At the risk of accusations of obsession, I return to this unusual member of the Syrphini. Emmanuel Kula (1983, The larva and puparium of Eriozonia syrphoides (Fallén) (Diptera,Syrphidae) Acta ent. bohemoslav., 80, 71-73) has now described the juvenile stages. At the point of diapause the 3rd instar larva is 15mm long "In size resembling the biggest Syrphid larvae, e.g. Volucella Geoffr. and Myatropa Rond" Kula obtained seven 3rd instar larvae by knockdown (insecticidal?) in 40 year-old spruce at Kuničky in the western part of Drahany Upland, Czechoslovakia. The larvae were feeding on the aphid Cinara pineae (Panz.). In the laboratory they entered diapause and were kept at 8°C from November to April and were exposed to severe frosts for 14 days in January. A male and a female adult emerged in mid-May. Interestingly during 1977-79 only two adults were caught at Kuničky, possibly again indicating the value of looking for hoverflies in the juvenile stages.

The Cheilosia larva hunt is on, by Alan Stubbs

Things often seem difficult until you start. The break through is largely psychological but it does help if there is a lead on technique.

We know that Cheilosia larvae are associated with plants and indeed I have found some before. However, to take thistles as an example, I had only located one larva and one empty puparium before (outside the thistles), midst masses of host plants. Ian McLean found the first answer during the Cornwall meeting - he proved that a stem with the inner pith stained brown about six inches above soil level was a sign that a

larva was in the stem base. After a week of Ian proudly marching in with larvae, I was treated to a field demonstration which involved beheading thistles with a panache that would terrify even the Gurkhas. It seemed fairer on the thistles if a knife were inserted two inches above ground and the knife twisted to open up the stem - if there was no brown stain the knife could be removed and the thistle looked none the worse for the assault. Large larvae (presumably of C.grossa or albipila) were full grown in early July, and remain in the stem into the autumn (observations continue to see what happens during the winter).

Up until early September every decent patch of marsh thistle looked at so far has larvae, often in a high percentage of stems. (It's a question of sorting out how many and which species of Cheilosia are involved - it's premature to confidently identify larvae at present.) However, as from mid-September I have failed to find larvae which suggests that they have left the stems.

The technique was deployed in the Alps where there are many Cheilosia which do not occur in Britain. Larvae were found in Circium palustris (marsh thistle), C.crispus? (rather like welted thistle), Petasites hybridus petioles (butterbur) and Adenostyles petioles and stems (non-British composite and seemingly a new Cheilosia host plant). A wide range of plants were investigated and when it comes to it, even in a rich alpine flora, there are not that number of obvious hosts of sufficient size unless larvae are right down in the roots without obvious signs above ground. What was intruguing is that of these four plant hosts, for three of them I only came across a patch of plants once in a fortnight even though they are 'common' plants. There is obviously a great element of chance in finding suitable plants.

I have failed to find Cheilosia in creeping thistle and spear thistle, which seems strange. However, with a conscious effort at looking in plants of sufficient size and substance, it ought to be possible to track down far more hosts. A suitable autumn and winter occupation. You may find fly larvae of other families whose life history is unknown (note that beetles, moths, sawflies and various other groups include stem miners).

My infested stems, petioles, etc., have been placed or 'planted' in moist peat in flower pots within plant propagators. Some other stems I shall keep in polythene bags, making sure that excess moisture is removed by use of tissue paper.

You need to be aware that technically it is illegal to uproot plants without the land owners permission (this is for the protection of our living flora and cannot reasonably be applied to dead plants). Obviously

it is important to ensure that you do not collect out the entire larval population from a patch of host plants.

Larvae and puparia can be recognised by the characteristic 'tail' consisting of fused twin tubes forming the syphon. It is very important to keep empty puparia should hoverflies emerge since the eventual aim will be to identify hoverflies on larvae alone (the puparium is the larval skin so features on the siphon are retained). If you have say half a dozen larvae, it is worth pickling one since not all characters are clear on a puparium. Keep parasites.

Why not join in the hunt. It's almost virgin territory and we've only just begun. There are 38 species of Cheilosia known from Britain as adults so far. It is possible that some rare or early spring species could be added to the British list on larval rearing even before we've found adults. Are C.paganus and C.vernalis species complexes? - larvae may provide the answer.

Breeding of Pandasyophthalmus haemorrhous, by Phil Withers

In the same private collection mentioned in the content of X.coeruliventris were two P.haemorrhous with associated pupal cases. Since I have no idea whether there exists any bred material of this species, I report the admittedly incomplete notes.

Some cruciferous plant material (no more exact, sadly) for feeding Orange Tip caterpillars was noticed to have some hoverfly larvae among the leaves. These pupated in the detritus of the rearing cage and were forgotten. Much later is was noticed that some flies were crawling around the cage. These were removed on 30 July 1965, and proved to be one Betasyrphus corollae and two Paragus sp. (I have since identified these as P.haemorrhous).

Early rising.... a useful strategy for hoverflies?, by Phil Withers

Don't misunderstand this title .... I like my bed, and getting up early is not a good personal strategy; my eyes don't focus too well until the caffeine and nicotine levels have reached reasonable levels... but on the one occasion when I was forced to collect at daybreak, I was amazed at the variety of flies that had evidently risen before me, and the ease of their capture. It happened like this.....

Holidaying in south Devon is a tricky business - the weather is unpredictable and some parts of the county are decidedly inhospitable. (For those who doubt I recommend a trip to the Axmouth Undercliffs reserve and contemplation of the consequences of leaving the path.) In the week I was at Axmouth, rain clouds blew off the sea by 8 o'clock every morning and made me feel sympathy for the tent-bound and envy for the hotel inmates (I was in a caravan). Right, I thought, it's nice and sunny before it rains, so if you get up early, you'll get a bit done before it drenches everything. The first morning I tried this (in a forestry plantation, Neroche Forest, opposite the site) I nabbed a sleepy Xylota lenta in a tube and netted four Criorhina berberina in one sweep of the net! This is all right, said I, I'll do this again ... after all I'd never even seen lenta before and there might be other goodies too. So I did, every morning for a week, at 5.30 and steadily my list of fine new diptera grew. A Criorhina asilica one morning as first capture really bucks you up ... on another day, a splendid male horsefly - and you don't see those every day! I saw a lot more lenta, but only caught very few (as soon as they warm up they get wary), some Xylota sylvarum and many X.segnis. I also caught quite a few female Neocnemodon crawling up grass stems ... they presumably don't get up quite as early as everyone else, or maybe they suffer monumental hangovers.

Maybe all this doesn't convince you ... but you'll never know what you might get until you try it!

Pooting hoverflies, by Alan Stubbs

The new hoverfly book gives advice on the use of the pooter for collecting hoverflies. Ideas continually evolve (hopefully everyone will be finding points to follow up) and some further notes on pooters are offered here.

Whilst on holiday in late summer I hit that dull period of a hot year when summer flies are virtually over and the autumn flies are not out. Nonetheless hoverflies were abundant even if the range of species was limited. Thus I experimented a bit more than usual. I have pooted directly off flowers on many occasions but tend to be 'net happy'. I found that I could poot most things if stalked gently. Moreover, even for big Eristalis and Helophilus, I could suck them onto the end of the pooter and hold them there for a few seconds by continuing to suck

whilst I drew the pooter towards me and gently grasped the fly between finger and thumb. Being in the Alps I wanted to screen large numbers of Eristalis since there are more species than in Britain and this was a very effective way of moving around patches of flowers without scaring everything away. I admit this is easier in late summer when flies on flowers were tame and that there will be less success on those mid-summer days when hoverflies tend to be more fidgety. I would not rely on the technique if there was a very strong desire to catch a particular fly but you cannot always get a net to the point required.

This leads me to a further thought which I have not fully tested but seems sound - why not use a spider pooter? This is very simple in design, being a narrow glass tube (as per the inlet tube of an insect pooter, which, with an intervening piece of muslin (net stocking, etc.) is plugged straight into the rubber sucking tube). The idea is that you suck up the beast, examine it in the confines of a narrow glass tube, and decide whether to reject or keep the specimen. Now a narrow glass tube is even less likely to arouse the suspicion of a hoverfly than one with a large cork and goodness knows what looming towards it. The glass tube could be long, or a slender rod could stiffen much of the rubber tube so that your hand holding the pooter was well back from the fly. The opportunities for pooting into almost impossible situations are increased enormously.

The spider pooter could largely resolve the problem of how to quickly examine a fly, even one caught in the net. No fiddling about with specimen tubes. The specimen is easily brought within range of a hand lens (a pooter barrel is usually broader than the focal length) and within a very confined space the specimen cannot move about too much. This goes some way towards resolving the problem, recognised in the Hoverfly Book, that it is awkward to examine a small fly without killing it.

A further advantage - good complete pooters are difficult to obtain and not cheap. A spider pooter is cheap and the basic parts are easy to obtain - the only initiative is to obtain 1 sq.cm. of ladies stocking!

Syrphids of Arran, by Phil Withers

Many of the invertebrate distribution maps so far published suggest that very few, if any, insects are recorded from even quite sizeable

islands. This is, of course, not the case, as a glance at Ken Smith's useful bibliography will reveal. Although I last visited Arran, on the west coast of Scotland, some years ago when I was but a casual dipterist, an examination of the list below reveals a surprising variety of species, taken in the most arbitrary fashion. The wide variety of habitats in this lovely and unpretentious island suggest that even minimal concerted effort would richly repay the assiduous collector.

Chrysotoxum arcuatum - forestry plantation near Corrygills (NS 0405)
C.bicinctum - Fallen Rocks (NS 0146); Whitefarland Point (NR 8658)
Cheilosia longula - Whitefarland Point
Eristalis horticola - Fallen Rocks
Ferdinandea cuprea - Fallen Rocks
Melanostoma mellinum - Corrygills
M.scalare - Cock of Arran (NR 9652)
Mylatropa florea - Whitefarland Point; Sannox Bay (NS 0246)
Pyrophaena granditarsa - Whitefarland Point
Platycheirus clypeatus - Cock of Arran
P.podagratus - Sannox Bay
P.albimanus - Sannox Bay
Syrphus ribesii - Sannox Bay
S.vitripennis - Cock of Arran
Sericomyia silentis - Glen Rosa (NS 0136)
Volucella pellucens - Cock of Arran; Fallen Rocks; Loch Tanna (NR 9050)
V.bombylans - Cock of Arran; Loch Tanna
Xylota segnis - Glen Rosa.

Xylota coeruleiventris - an addition to its known range, by Phil Withers

In a recent examination of a collection of hoverflies a female X.coeruleiventris was discovered. The data on the label states that the specimen was taken on 14 July 1971 at Dartmeet in Devon. Personal communication with the collector established that the fly was taken on an umbellifer at the confluence of the two moorland streams which constitutes Dartmeet. What this does to the distribution pattern is horrible to contemplate! (I think it does something of some potential interest - viz. it gives this species a classically Highland distribution (see map 30 of the Preliminary Atlas of the Hoverflies of the British Isles, 1983) something we have not yet seen for any other hoverfly.

Of course it could simply be that X.coeruleiventris is gradually penetrating coniferous forests in a southward movement in the British Isles. However, we might well look for Eristalis rupium and Eriozona syrphoides in Devon/Cornwall since in other respect these flies have a northern and Highland occurrence - P.F.E.)

Brachyopa insensilis, a reassessment

In Hoverfly Newsletter Number 2, I unwisely included a distribution map of this species. This produced not exactly a storm of protest but some helpful comments on records I had overlooked. Hence a revised map is included here which it will be noted shows a record by Peter Chandler for Ireland. Two males of B.insensilis and one of B.scutellaris were taken at hawthorn blossom (Chandler, P, 1982. Some diptera of the Killarney area May 1981, including five species new to Ireland. Ir. Nat. J., 20 (12), 555-558).

If recorders care to send me any new information on other Brachyopa species, I will compile maps for the next issue of the Newsletter.

Scaeva.

Scaeva pyrastri is a very familiar summer species of hoverfly represented in probably all collections. S.selenitica by contrast is seldom encountered despite the fact that it has been recorded throughout the British Isles from Orkney southwards. This wide distribution goes some way to suggesting that there are no very severe meteorological restraints on S.selenitica. Why, therefore, is it of such apparent infrequency? In my view, this species has a preference for coniferous woods. Its larvae have been collected from Pinus near Sunninghill, Berkshire (T.J. Dixon, 1960. Key to and descriptions of the third instar larvae of some species of syrphidae (Diptera) occurring in Britain. Trans. R. ent. Soc. Lond. 112, 345-379) whilst both E. Kula (1980, Cas. Slez. Mus. Opava (A), 29, 269-281) and Entwistle (Hoverfly Newsletter, Number 2, 1983) have bred it from the floor of spruce (Picea spp.) forests in Wales and Czechoslovakia. I bred an adult from a larva collected from spruce in Hafren forest, Wales. I also took it in spruce forest near Aberfoyle in Scotland. I have generally found it a rather secretive species seldom seen flying and often on flowers (e.g. Heracium and Hypericum) in the shade of the trees. My Welsh records

cover the period late July to the first week of August only and I have not necessarily found it in all years.

Cheilosia chrysocoma.

In the Preliminary Atlas of the Hoverflies (Diptera:Syrphidae) of the British Isles (Entwistle, P.F. and Stubbs, A.E., 1983, Biological Records Centre, Institute of Terrestrial Ecology, UK), some of the records for this species were inadvertently omitted. A complete version of the map is printed here.

Syrphus nitidifrons Becker, 1921 - scan your collections

S.nitidifrons is a little known species apparently widely distributed between Western Europe (Pyrenees) and the Western USSR. However, it has now been clearly recognised in the Netherlands by Art Barendregt (1983, Syrphus nitidifrons Becker, 1921, from the Netherlands, with description of the male, and a key to the European Syrphus species (Diptera:Syrphidae). Ent. Bericht., 43(4), 59-64).

In the British Isles this species is most likely to be confused with Parasyrphus punctullatus, particularly as like punctullatus it also flies early (circa 10th April-10th June in the Netherlands). I make no excuse for quoting Art Barendregt's diagnosis notes, though not his full description:

> 'Syrphus nitidifrons is separated from the other species in the genus Syrphus by the combination of the following characters: three pairs of spots on the tergites, transverse brown bands on the sternites, face yellow with a black mouth edge, frons black, and wings entirely covered with microtrichiae. With respect to the other Syrphini the characters of the genus Syrphus can be used (see Vokeroth, 1969), adding the following characters: face and frons without microtrichiae ("dusting"), both with long black hairs; frons a little swollen.'

In P.punctullatus you will, of course, find the face is also yellow but with a fairly wide black central division.

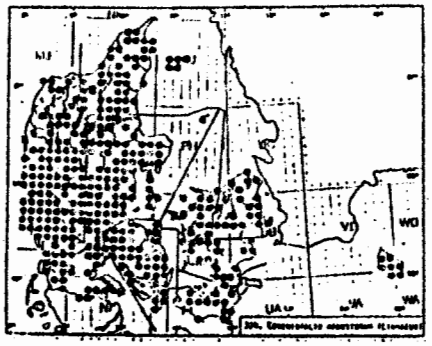
Adults of S.nitidifrons were taken at early flowering shrubs e.g. Salix spp., Prunus serotina, Sorbus aucuparia and Amelanchier lamarreckii in the sandy region of Veluwe where there are many forests of Pinus and Pseudotsuga.

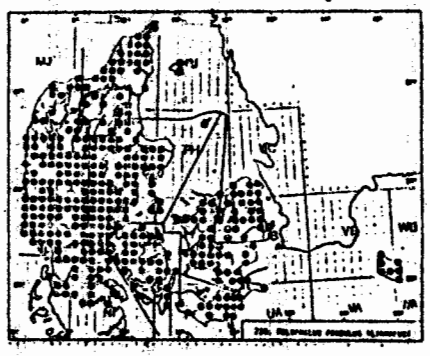
There is clearly a lot to be learned about this species not only in terms of its distribution but also the juvenile stages and their habits.

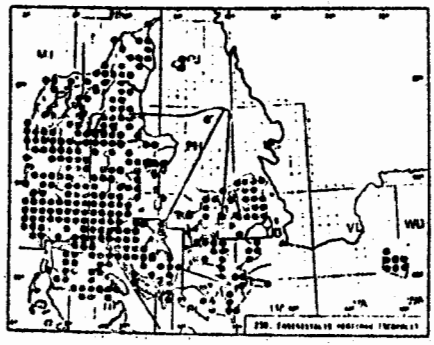
Will it be found in the UK possibly around coniferous woodland in Dorset and the New Forest?

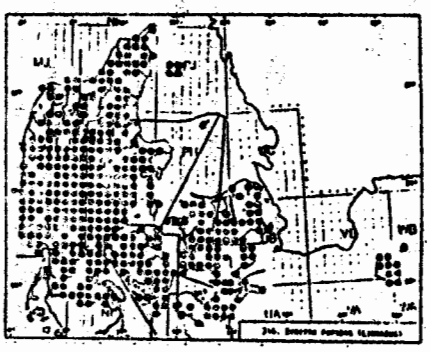
Post Script - Rhingia campestris and rostrata

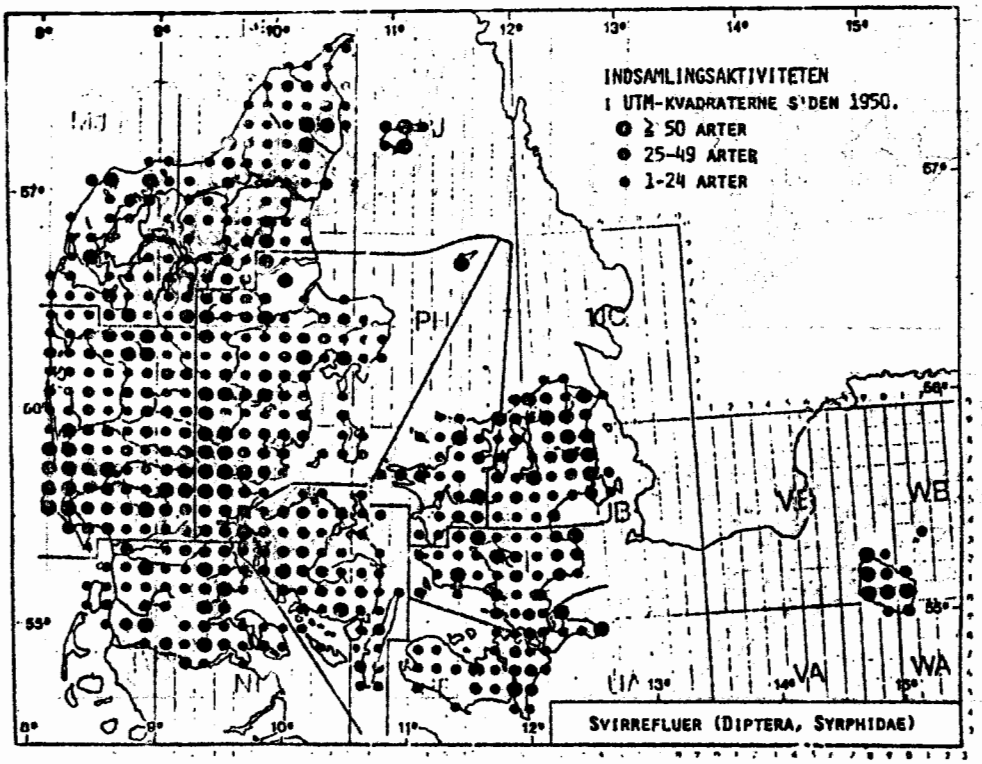
Martin Speight is trying to tidy up the nomenclature of these two species. It would be useful to know if R.rostrata is earlier on the wing than R.campestris, especially in the south of England. I have been through all the Hoverfly record cards and can find no data at all on R.rostrata. Possibly members could help Dr. Speight by sending flight records, especially early ones, to him at Forest & Wildlife Service, Research Branch, Sidmonton Place, Bray, Co. Wicklow, Ireland.










INDSAMLINGSAKTIVITETEN
I UTM-KVADRATERNE S'DEN 1950.
≥ 50 ARTER
25-49 ARTER
1-24 ARTER
SVIRREFLUER (DIPTERA, SYRPHIDAE)

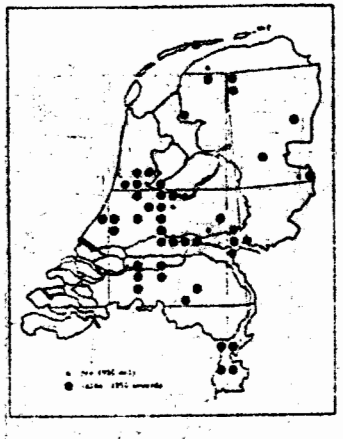


Fig. 1. *Anacimpia interpuncta*

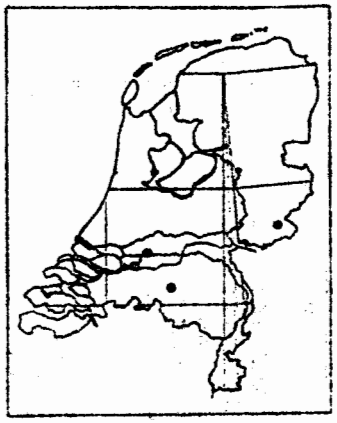


Fig. 2. *Anacimpia lunulata*

Fig. 3. *Anacimpia contracta*

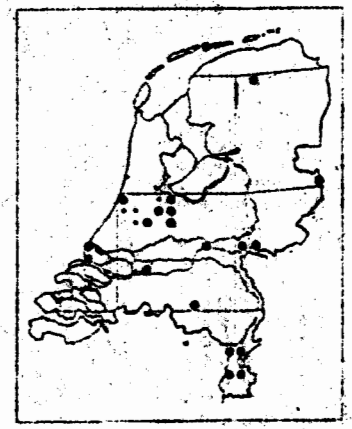


Fig. 4. *Anacimpia transfuga*