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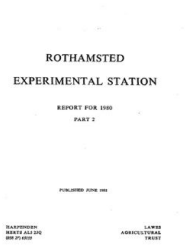

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Synoptic Monitoring for Migrant Insect Pests in Great Britain and Western Europe II. The species of alate aphids sampled at 12·2 m by Rothamsted Insect Survey suction trap at Tåstrup, Denmark, between 1971 and 1976

O. E. HEIE*, H. PHILIPSEN† and L. R. TAYLOR‡

Abstract

Details are tabulated for the aphid species sampled over 6 years with comments on the status as expected from previous experience.

Introduction

Since 1964 flying aphids have been systematically monitored at an increasing number of sites throughout Great Britain as part of an investigation into the aerial population of insects with special reference to agricultural and other pest species (Taylor, 1973, 1974). An ultimate objective is the development of a forecasting system (Taylor, 1977, 1979) and a preliminary requisite is to establish the general level of the aerofauna in order to detect changes in populations prior to epidemics. In order to relate the timing and fluctuations of pest populations to those of other insects in a search for possible common attributes of potential value in monitoring and forecasting, and also because the ability to identify aphids at the speed demanded depends partly on a knowledge of what sibling species are likely to be present in the daily samples, all the aphids from most of the sites have been identified to species. The sampling network subsequently extended into Holland, Denmark, Northern Ireland, France and Belgium. This makes possible a comparison of the pest species and the general species content of aphid populations separated by ecological barriers of different extent, such as the mountains of Wales and Scotland, the Northern Channel of the Irish Sea, the English Channel and especially the North Sea. As a preliminary to such an analysis, we present a qualitative description of the aphids found in the Denmark trap for comparison with the aphid population of various regions of Great Britain in Taylor *et al.* (1981).

Methods

In 1971, a suction trap was established at Tåstrup near Copenhagen at 'Højbakkegard', an experimental farm of the Royal Veterinary and Agricultural University, Copenhagen, on the ititiative of one of us (LRT) as an ancillary to the Rothamsted Insect Survey. Using these traps a measure of the aerial density of insects, standardised for direct comparison between regions is obtained (Taylor & Palmer, 1972).

The Danish trap operated from July 1971 until December 1977; it was emptied daily from May to November and weekly during the remainder of the year. The catches were sorted and all aphids sent to Rothamsted for identification, usually to species but for some groups only to genera or family, after macerating and clearing in lactic acid and chloral phenol. All specimens were recorded, and the aphids from the Danish trap stored

* Skive Seminarium, Department of Biology, Skive, Denmark.
† Royal Veterinary and Agricultural University, Zoologisk Institut, Copenhagen, Denmark.
‡ Rothamsted Experimental Station, Harpenden, Hertfordshire, England.

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so that it was possible to refind specimens of special interest because they were new to the Danish fauna or had not previously been found in North-eastern Zealand where the Danish trap was situated.

The Rothamsted Insect Survey compiles weekly *Aphid Bulletins* reporting the numbers of 30–35 aphid species or genera of economic or other special interest for use by agricultural advisors and research workers interested in the changing aphid population. These aphid species also appear in the yearly *Rothamsted Report*, summarised and tabulated for 4-week periods (Taylor & French, 1972–78), and include the Danish data.

This paper deals with captures from 1971 to 1976. It contains lists, (I) of the common or pest species given in the weekly *Bulletins* mentioned above; (II) of species new to Denmark; (III) and (IV) of species which have been found only occasionally or not at all in the Copenhagen area.

In the following lists of aphids, the taxonomist responsible for the identification is named. In cases where no single person is named, identification was made by the group of identifiers at Rothamsted. Specimens of the species to which an asterisk (*) has been added, were checked by the senior author.

The numbers *preceding* the species name are those used in the Rothamsted Insect Survey (see Taylor *et al.*, 1981). The number in brackets *following* the name of a species refers to the sequence of species in *A list of Danish aphids* (Heie, 1960–70) and supplementary lists (Heie, 1972, 1973, 1976). Additional species inserted in this list between No. 250 and No. 251, say, are given the numbers 250a, 250b, etc.

The species names are in accordance with Eastop and Hille Ris Lambers (1976), and readers are referred to that paper for synonyms. Notes on geographical distribution (especially in Fennoscandia), and some biological data have been added.

List No. I: Aphids recorded in *Bulletins*

The number of aphids of each of the species listed in the weekly *Bulletins* is given in the following categories; 0=0; 1=1–9; 2=10–99; 3=100–999, etc., for each of the following 4-week periods:

in 1971, 1972, and 1973; 23 April–20 May; 21 May–17 June; 18 June–15 July; 16 July–12 August; 13 August–9 September; 10 September–7 October; 8 October–4 November;
in 1974; 22 April–19 May; 20 May–16 June; 17 June–14 July; 15 July–11 August; 12 August–8 September; 9 September–6 October; 7 October–3 November;
in 1975; 21 April–18 May; 19 May–15 June; 16 June–13 July; 14 July–10 August; 11 August–7 September; 8 September–5 October; 6 October–2 November;
in 1976; 19 April–16 May; 17 May–13 June; 14 June–11 July; 12 July–8 August; 9 August–5 September; 6 September–3 October; 4 October–31 October; (1971 and 1973 after Taylor & French (1972, 1973), 1973–76 after the weekly *Bulletins*). The maximum number (abbreviation: max.) for one period is also given for each species.

The trap was also operating before the middle of April (except in 1971) and after the beginning of November, but no aphids were caught except in the periods mentioned above. The first results are from the week 16 July–12 August 1971.

389 *Acyrthosiphon pisum* (Harris, 1776) (42)
71: –,–,–,3,0,0,0. 72: 0,1,2,2,0,1,0. 73: 0,1,2,2,0,0,0.
74: 1,1,1,1,0,0,0. 75: 0,0,2,2,0,1,0. 76: 0,1,2,2,0,0,0.
Max. 156 (71).

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132 *Aphis fabae* (Scopoli, 1763) group (153)
71: –,–,–,4,1,1,0. 72: 0,0,1,2,1,1,0. 73: 0,1,2,3,1,0,0.
74: 0,0,1,2,2,1,0. 75: 0,0,1,1,1,0,0. 76: 0,0,2,3,1,0,0.
Max. 2648 (71).

376 *Aulacorthum solani* (Kaltenbach, 1843) (50)
71: –,–,–,0,0,0,0. 72: 0,1,1,0,0,0,0. 73: 0,1,1,1,0,0,0.
74: 0,0,1,1,0,0,0. 75: 0,0,1,1,0,0,0. 76: 0,0,1,1,0,0,0.
Max. 4 (72, 76).

243 *Brachycaudus helichrysi* (Kaltenbach, 1843) (121)
71: –,–,–,3,1,1,0. 72: 0,1,2,3,2,2,2. 73: 0,2,3,2,1,1,0.
74: 0,0,2,2,1,2,0. 75: 0,1,3,2,1,0,0. 76: 0,0,2,2,1,1,1.
Max. 469 (71).

264 *Brevicoryne brassicae* (Linne, 1758) (112)
71: –,–,–,2,1,1,0. 72: 0,0,0,1,2,2,1. 73: 0,0,2,2,1,2,0.
74: 0,0,1,2,3,2,0. 75: 0,0,1,2,2,1,0. 76: 0,0,1,2,1,1,1.
Max. 100 (74).

292 *Cavariella aegopodii* (Scopoli, 1763) (97)
71: –,–,–,2,0,0,1. 72: 0,1,2,2,1,1,1. 73: 0,2,3,1,1,1,0.
74: 0,1,2,1,1,1,1. 75: 0,1,2,1,1,1,0. 76: 0,1,3,3,0,0,0.
Max. 309 (76).

91 *Drepanosiphum platanoidis* (Schrank, 1801) (259)
71: –,–,–,1,1,0,0. 72: 0,0,1,1,1,2,1. 73: 0,3,1,1,0,1,1.
74: 0,0,1,1,2,2,1. 75: 0,2,2,1,0,0,0. 76: 0,0,2,1,1,0,1.
Max. 185 (73).

234 *Dysaphis* (*Pomaphis*) *plantaginea* (Passerini, 1860) (133)
71: –,–,–,1,0,0,0. 72: 0,0,1,1,0,0,1. 73: 0,0,2,0,0,1,0.
74: 0,0,1,0,0,0,0. 75: 0,0,1,0,0,1,1. 76: 0,0,2,1,0,0,0.
Max. 99 (76).

290 *Elatobium abietinum* (Walker, 1849) (96)
71: –,–,–,0,0,0,0. 72: 0,0,0,0,0,0,0. 73: 1,3,1,0,0,0,0.
74: 0,1,0,0,0,0,0. 75: 0,2,3,0,0,0,0. 76: 0,0,0,0,0,0,0.
Max. 174 (75).

500 *Eriosoma* (*Schizoneura*) *ulmi* (Linne, 1758) (302)
71: –,–,–,0,0,1,1. 72: 0,1,3,1,0,1,1. 73: 0,2,3,1,0,1,0.
74: 0,1,2,1,0,0,0. 75: 0,1,1,0,0,0,0. 76: 0,0,3,2,0,0,0.
Max. 500 (73).

110 *Hyalopterus pruni* (Geoffroy, 1762) (196)
71: –,–,–,3,2,1,0. 72: 0,0,2,3,3,3,0. 73: 0,2,4,3,1,1,0.
74: 0,0,3,3,3,2,0. 75: 0,0,3,3,3,2,0. 76: 0,0,3,4,2,1,0.
Max. 7077 (73).

358 *Hyperomyzus lactucae* (Linne, 1758) (59)
71: –,–,–,2,0,0,0. 72: 0,1,2,1,0,1,0. 73: 0,2,2,0,0,1,0.
74: 0,1,0,0,0,1,1. 75: 0,1,1,1,1,1,1. 76: 0,1,2,2,0,0,0.
Max. 37 (71).

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410 *Macrosiphum euphorbiae* (Thomas, 1878) (26)
71: –,–,–,2,0,0,0. 72: 0,0,1,1,0,0,0. 73: 0,1,3,2,0,0,0.
74: 0,0,2,1,1,0,1. 75: 0,2,2,2,0,0,0. 76: 0,0,2,1,0,1,0.
Max 163 (73).

396 *Metopolophium dirhodum* (Walker, 1848) (see also Philipsen, 1977) (44)
71: –,–,–,4,0,0,0. 72: 0,0,2,3,0,0,0. 73: 0,1,4,3,0,0,1.
74: 0,0,2,3,0,0,0. 75: 0,0,3,3,0,0,1. 76: 0,1,3,3,0,0,0.
Max. 2251 (73).

397 *M. festucae* (Theobald, 1917) (45)
71: –,–,–,1,0,0,0. 72: 0,0,1,1,0,0,0. 73: 1,0,2,1,0,0,0.
74: 0,0,2,2,0,0,0. 75: 0,1,2,2,0,0,0. 76: 0,0,1,2,0,0,0.
Max. 98 (75).

318 *Myzus* (*Nectarosiphon*) *ascalonicus* Doncaster, 1946 (87)
71: –,–,–,0,0,0,0. 72: 0,1,0,0,0,0,0. 73: 0,2,1,0,0,0,0.
74: 1,1,0,0,0,0,0. 75: 1,3,2,1,0,0,0. 76: 0,0,0,0,0,0,0.
Max. 136 (75).

319 *M.* (*N.*) *certus* (Walker, 1849) (88)
included in *M. persicae* group till June 1975
75: –,–,1,0,0,1,0. 76: 0,1,1,0,1,1,0.
Max. 5 (76).

322 *M.* (*N.*) *persicae* (Sulzer, 1776) group (90)
71: –,–,–,3,1,0,0. 72: 0,0,1,2,1,0,1. 73: 0,1,2,2,0,2,0.
74: 0,0,2,2,2,1,0. 75: 0,0,2,3,1,2,0. 76: 0,0,2,2,0,0,1.
Max. 199 (71).

355 *Nasonovia ribisnigri* (Mosley, 1841) (64)
71: –,–,–,2,0,0,1. 72: 0,1,1,0,0,0,0. 73: 0,2,2,0,0,1,0.
74: 1,0,0,1,1,1,0. 75: 0,1,2,2,0,0,0. 76: 0,0,1,2,0,1,0.
Max. 31 (73).

308 *Phorodon humuli* (Schrank, 1801) (92)
71: –,–,–,2,0,0,0. 72: 0,0,1,2,0,0,0. 73: 0,1,2,2,0,0,0.
74: 0,1,2,1,0,0,0. 75: 0,1,2,1,0,0,1. 76: 0,0,3,3,0,0,1.
Max. 162 (76).

78 *Phyllaphis fagi* (Linne, 1767) (263)
71: –,–,–,1,0,0,0. 72: 0,1,1,0,0,0,0. 73: 0,2,2,0,0,0,0.
74: 0,0,1,0,0,0,0. 75: 0,0,1,0,0,0,0. 76: 0,1,2,1,0,0,0.
Max. 95 (76).

111 *Rhopalosiphum insertum* (Walker, 1948) (188)
71: –,–,–,3,2,2,2. 72: 0,2,2,3,2,2,3. 73: 0,2,2,2,1,3,2.
74: 1,1,1,2,2,2,1. 75: 0,1,2,1,1,1,1. 76: 0,2,2,1,1,1,1.
Max. 431 (72).

112 *R. maidis* (Fitch, 1856) (189)
71: –,–,–,2,1,1,0. 72: 0,0,1,1,1,0,0. 73: 0,0,2,1,1,1,0.
74: 0,0,0,0,1,1,0. 75: 0,0,1,1,1,1,1. 76: 0,0,0,0,1,1,0.
Max. 12 (71, 73).

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114 *R. padi* (Linne, 1758) (see also Philipsen, 1977) (191)
71: –,–,–,5,3,3,2. 72: 0,2,3,4,3,3,3. 73: 1,2,5,4,2,3,3.
74: 0,1,4,4,3,3,2. 75: 0,2,4,4,2,3,3. 76: 0,2,5,4,2,2,3.
Max. 40799 (76).

420 *Sitobian avenae* (Fabricius, 1775) (see also Philipsen, 1977) (32)
71: –,–,–,4,1,1,0. 72: 0,2,3,4,2,1,0. 73: 0,1,3,3,2,1,1.
74: 0,0,2,3,2,1,0. 75: 0,1,3,3,2,1,0. 76: 0,0,3,3,3,0,0.
Max. 2342 (71).

421 *S. fragariae* (Walker, 1848) (33)
71: –,–,–,1,0,0,0. 72: 0,0,0,1,0,0,0. 73: 0,0,1,1,0,0,0.
74: 0,0,1,1,1,1,0. 75: 0,0,0,0,0,0,1. 76: 0,0,1,1,0,0,0.
Max. 8 (71, 76).

468 *Amphorophora rubi* (Kalt.) is omitted from the list because it cannot be separated from 469, *A. idaei* (Börn.). 470, *Megoura viciae* Buckt., and 315, *Myzus ornatus* Laing, are omitted because the former has not been caught at all by the Danish trap 1971–76, and only two specimens of the latter have been caught (in July 1973).

287 *Chaetosiphon* (*Pentatrichopus*) *fragaefolii* (Cock.) is recorded in the weekly *Bulletins* from Denmark, but omitted below because the specimens we have seen were 288, *C.* (*P.*) *potentillae* Wlk. which is common in Denmark where *C.* (*P.*) *fragaefolii* (Cock.) has never been found.

List No. II: Aphids new to Denmark

The following 15 species new to Denmark are listed in alphabetical order.

374 *Aulacorthum palustre* Hille Ris Lambers, 1947 (49a)
Northern part of Central Europe, Great Britain and Norway. On various composites (*Leontodon*, *Taraxacum*, *Hypochoeris*, *Picris*). Not host-alternating. Trap data: 3 July 1975 (*).

377 *A. speyeri* (Börner, 1939) (50a)
Central Europe, Russia, Great Britain, Sweden, a rare species. On *Convallaria majalis*. Trap data: 19 July 1972 (*).

49 *Chaitophorus truncatus* (Hausmann, 1802) (250a)
Europe including Finland, and the USSR. In small colonies on leaves of *Salix* spp. (*S. purpurea*, *S. amygdalina*, *S. alba*, *S. triandra*, *S. babylonica*). Trap data: 2 July 1971 (*), 9 July 1971 (*), 26 August 1971 (*).

743 *C. vitellinae* (Schrank, 1801) (250b)
Europe, including Sweden, and the USSR. On small branches of *Salix alba*, *S. fragilis*, and *S. viminalis*, primarily at bases of petioles, visited by ants. Trap data: 17 July 1972 (H. L. G. Stroyan det.) (*).

259 *Diuraphis muehlei* (Börner, 1950) (109a)
Europe, including Sweden, Norway and Finland. In yellowish leaf rolls on *Phleum pratense*. Trap data: 21 July 1976 (*).

528 *Forda marginata* Koch, 1856 (317a)
Europe, including Norway, Sweden, the USSR, the Middle East, and North America. On roots of various grasses (e.g. *Triticum*, *Bromus*, *Poa*, and *Festuca*). Trap data: 24 June 1974 (two specimens) (*), 21 July 1975 (*), 24 July 1976 (*).

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727 *Melanaphis pyraria* (Passerini, 1861) (193a)
Europe, including Sweden, the USSR, and the Middle East. Host-alternating between pear (*Pyrus communis*), the primary host, and grasses (e.g. *Poa*), the secondary hosts. On pear the leaves are curled in spring. Visited by ants. Trap data: 30 June 1974 (two specimens) (*).

392 *Microlophium primulae* (Theobald, 1913) (53a) Europe, including Sweden, introduced in Tasmania and New Zealand. Anholocyclic. On *Primula* (*P. vulgaris*, *P. veris*, *P. kewensis*). The species can be a pest in glasshouses, but it seems to be rare in continental Europe. Trap data: 26 June 1973 (*).

38 *Periphyllus hirticornis* (Walker, 1848) (240b)
Europe, including Great Britain, not known from northern Germany and Fennoscandia. On petioles, leaves, and fruits of *Acer campestre*, sometimes visited by ants. Trap data: 6 June 1973 (two specimens) (*), 7 June 1973 (*), 15 June 1974 (*), 6 July 1975 (*), 28 July 1976 (*).

275 *Pseudacaudella rubida* (Börner, 1939) (119b)
Great Britain, Germany, Poland, Austria, Russia, Sweden and North America. On moss. Trap data: 24 June 1973 (*), 21 June 1976 (*).

Some measurements of the specimen from 1976: body 1·1 mm, ant. segm. III 0·33 mm, apical segm. of rostrum 0·095 mm, 2nd segm. of hind tarsus 0·05 mm, siphunculus 0·14 mm, cauda 0·04 mm, ant. segm. III with 28 secondary rhinaria. The number of secondary rhinaria is larger than in material described by F. P. Müller (1973:226), who gave 7–14. One fore wing has two forks (three branches) of media, whereas the other one has one fork (two branches), which is the normal condition in this species.

265 *Pseudobrevicoryne buhri* (Börner, 1952) (112a)
Central Europe, Great Britain, Sweden, and the USSR. On *Barbarea vulgaris* and *B. stricta* in leaf rolls. Trap data: 24 June 1974 (O. E. Heie det.) (*). The determination was confirmed by Dr H. L. G. Stroyan, who compared the specimen with material from Great Britain.

Some measurements: body 1·73 mm, ant. segm. III 0·51 mm, IV 0·17 mm, V 0·16 mm, apical segm. of rostrum 0·10 mm, 2nd segm. of middle tarsus 0·13 mm, siphunculus 0·04 mm, cauda 0·12 mm; secondary rhinaria: III: 50–52, IV: 8, V: 5; cauda with 5 hairs.

367 *Rhopalosiphoninus ribesinis* (van der Goot, 1912) (65b)
Europe, including Norway, Sweden and Finland, and the USSR. Seems to be a rare species, in Western Europe at least. On branches of *Ribes rubrum* (according to the original description also on *R. nigrum*), primarily close to the ground on damp and shadowy places. Not host-alternating. Trap data: 7 June 1973 (two specimens) (*), 17 June 1973 (*), 15 June 1974 (*).

750 *Schizaphis* (syn. *Rhopalosiphum*) *pilipes* (Ossiannilsson, 1959) (195b)
Sweden, Finland, Great Britain, Germany, Czechoslovakia. On *Carex gracilis*, perhaps on other *Carex* spp. too. Trap data: 8 July 1973 (H. L. G. Stroyan det.) (*).

Body 1·75 mm, with dark marginal sclerites; antenna about 0·8 × body length, processus terminalis 5–6 × base of ant. segm. VI, ant. segm. III with 17–20 secondary rhinaria, segm. IV with 7–13, segm. V with 2; siphunculi dark, wrinkled, about twice as long as cauda, thinnest in the middle, with rather large flange; cauda with 6 hairs; media with one fork.

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Alate viviparous females are apparently rather rare. Besides the specimen from the suction trap in Denmark, only one alate specimen has been recorded from Sweden by Ossiannilsson (1964).

273 *Staegeriella necopinata* (Börner, 1939) (119a) Europe, including Sweden, Norway, and Finland, and the USSR. On *Galium verum*, *G. mollugo*, and *G. purpureum*. Trap data: 26 July 1974 (*), 1 July 1975 (*), 6 July 1975 (*), 30 July 1975 (*).

744 *Trichosiphonaphis* (*Xenomyzus*) *corticis* (Aizenberg, 1935) (119c)
Austria, Switzerland, Poland, Rumania, USSR. The record from Denmark is interesting because the species is unknown in Great Britain, Northern Germany, Finland, Sweden, the Low Countries and France.

The specimen was caught in the suction trap during the period from 10.00 a.m. 6 July till 10.00 a.m. 7 July 1972. Inspection of the weather map for that period and for the previous day shows that high temperatures (20–27°C) occurred all over Europe. There were movements of warm air from the south and south-east towards Denmark. This indicates that the aphid could have been transported by air from one of the regions where it has been recorded previously. The long trapping period (24 h), with changes in wind direction, could lead to several alternative sources. We have not, therefore, given a possible trajectory for this aphid. On old branches of *Lonicera* (*L. xylosteum*, *L. tatarica*), probably without host alternation. Trap data: 6 July 1972 (H. L. G. Stroyan det.) (*).

Aphids previously recorded from Denmark (lists Nos. III–IV)

The following records are of interest in connection with the mapping of the species occurring in Denmark carried out by the senior author for the aphid volumes of *Fauna Entomologica Scandinavica* and *Danmarks Fauna* (Heie, in preparation).

List No. III contains the names of interesting or little recorded species, which have been seen by the senior author among specimens from the suction trap at Tåstrup. List No. IV contains additional records of interesting or little recorded species, in some cases previously unknown from the Copenhagen area, of which specimens from the suction trap have not been seen by the authors.

List No. III

170 *Aphis coronillae* Ferrari, 1872 (177a), syn. *A. scaliai* del Guercio, 1915: 25 June 1973 (*).
342 *Capitophorus elaeagni* (del Guercio, 1894) (76): 7 October 1973 (*).
344 *C. horni* Börner, 1931 (78): 24 June 1974 (*); 23 June 1976 (*).
346 *C. similis* van der Goot, 1915 (79): 15 June (*), 24 June 1974 (*); 10 June (*), 10 July 1975 (*).
295 *Cavariella konoi* Takahashi, 1939 (98a): 2 July (*), 8 July (*), 9 July 1971.
46 *Chaitophorus populialbae* (Boyer de Fonscolombe, 1841) (248): 18 August 1971; 14 August 1972; 22 July 1973 (*); 8 June (*), 14 July 1975 (*); 23 June 1976 (*).
395 *Metopolophium albidum* Hille Ris Lambers, 1947 (43a): 19 July 1971 (*).
301 *Ovatus crataegarius* (Walker, 1850) (93): 2 July 1971 (*); 24 June 1974 (*); 2 July (*), 3 July*, 8 July (*), 10 July 1975 (*); 23 June 1976 (*).
303 *O. insitus* (Walker, 1849) (94): 7 July 1975 (*); 23 June 1976 (*).
507 *Prociphilus fraxini* (Fabricius, 1777) (308): 29 June 1975 (*).
33 *Trama rara* Mordvilko, 1908 (238): 17 September 1976 (*).

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List No. IV

239 *Anuraphis subterranea* (Walker, 1852) (137): 28 August 1973; 16 October 1974; 13 September 1976.

330 *Aspidaphium escherichi* Börner, 1939 (83b): 9 July, 26 July, 27 July 1971; 30 July 1973.

253 *Brachycaudus* (*Thuleaphis*) *rumexicolens* (Patch, 1917) (127a): 24 July 71; 20 July, 31 August 1975; 23 June, 7 July, 19 September 1976.

55 *Caricosipha paniculatae* Börner, 1939 (256a): 27 July, 6 August 1971; 25 July 1972; 1 August 1973.

293 *Cavariella archangelicae* (Scopoli, 1763) (98): rather common, especially in June–July 1973 and 1975.

43 *Chaitophorus capreae* (Mosley, 1841) (244): 3 July 1971; 17 July 1972; 17 June, 1 July 1975.

42 *C. horii* subsp. *beuthani* (Börner, 1950) (243): 8–26 July 1971; 10–27 July 1972; 16 June–12 July 1973; 1 July–3 August 1975.

742 *C. leucomelas* Koch, 1854 (254): 18 June–21 July 1975; 26 June 1976.

47 *C. salicti* (Schrank, 1801) (249): 22 July 1972; 21 June–2 August 1973; 15 June, 16 October 1974; 17 June–14 July 1975.

15 *Cinara confinis* (Koch, 1856) (227), syn. *Lachnus abieticola* Cholodkovsky, 1899; *Cinara* (*Dinolachnus*) *piceae* in 'A list of Danish aphids' (Heie, 1970: 143), not *Aphis piceae* Panzer, 1801: 9 September 1971.

13 *C. laricis* (Walker, 1848) (220): 1 July, 3 July, 30 August 1972.

19 *C. pilicornis* (Hartig, 1841) (222): 24 July, 25 July, 2 August 1971; 25 June, 27 June, 3 July, 10 July, 11 July 1972; 22 June 1974; 30 June, 2 July 1975.

17 *C. pinea* (Mordvilko, 1895) (223): 30 June, 24 July 1972; 14 June, 23 June 1974.

18 *C. pini* (Linne, 1758) (224): 3 July, 7 July 1971; 28 June, 6 July 1972; 24 June 1974.

403 *Corylobium avellanae* (Schrank, 1801) (36): 16 July 1972).

404 *Delphiniobium junackianum* (Karsch, 1887) (35): 19 July 1972.

235 *Dysaphis* (*Pomaphis*) *pyri* (Boyer de Fonscolombe, 1841) (134): 4 July, 5 August 1971; 28 July 1972; 4 July 1973; 23 June 1974; 14 July, 13 August 1975; 30 June–14 July 1976.

499 *Eriosoma* (*Schizoneura*) *patchae* (Börner & Blunck, 1916) (301): 17 July, 3 October 1972; 22 September, 29 September 1973; 12 August, 26 September, 15 October 1974; 13 September, 25 September 1976.

1 *Eulachnus agilis* (Kaltenbach, 1843) (212a): 3 August, 5 August 1971; 30 June, 27 July, 28 July 1972; 15 June 1974; 10 July 1975.

3 *E. brevipilosus* Börner, 1940 (213): rather few specimens from June and July 1972–76.

527 *Forda formicaria* v. Heyden, 1837 (317): 24 June, 25 June 1972; 16 June, 24 June 1973; 8 June, 14 June, 2 July 1975.

533 *Geoica utricularia* (Passerini, 1856) (319), syn. *Tychea eragrostidis* Passerini, 1860; 24 June 1974.

363 *Hyperomyzus* (*Hyperomyzella*) *rhinanthi* (Schouteden, 1903) (62): 1 August 1971; 23 August 1974.

100 *Iziphya* (syn. *Juncobia*) *leegei* Börner, 1940 (290): 29 July 1971; 17 July–2 August 1972; 7 July 1973; 30 June 1974; 23 June–7 August 1975; 24 June, 15 July 1976.

502 *Kaltenbachiella pallida* (Haliday, 1838) (303): 20 July 1972; 13 August, 22 September, 27 October 1973; 16 August, 1 October 1974; 15 September, 4 October 1975; 24–28 September 1976.

450 *Macrosiphoniella abrotani* (Walker, 1852) (before No. 1 in Heie, 1960): common in July–August 1971 and 1974, rather few in the other years.

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462 *M. persequens* (Walker, 1852) (4a): rather common, from June to August.
455 *M. pulvera* (Walker, 1848) (5): 26 June 1976.
463 *M. sejuncta* (Walker, 1848) (7): 4 August 1974.
458 *M. subterranea* (Koch, 1855) (8b), syn. *M. trimaculata* Hille Ris Lambers, 1938: 23 August 1974.
732 *M. tapuskae* (Hottes & Frison, 1931) (8a): rather common in July.
459 *M. usquertensis* Hille Ris Lambers, 1935 (9): 9 July 1971.
412 *Macrosiphum funestum* (Macchiati, 1885) (27): 21 July 1973.
63 *Myzocallis castanicola* Baker, 1917 (274): 3–26 July 1971; 30 June–28 July 1972; 16 June–17 July 1973; 10 July 1975; 24 July 1976.
314 *Myzus lythri* (Schrank, 1801) (85): common, especially in July.
354 *Nasonovia pilosellae* (Börner, 1933) (63): 3 August 1974; 11 July 1975.
306 *Ovatomyzus calaminthae* (Macchiati, 1885) (92a): 17 July 1972; 30 June 1973; 31 July 1974; 18 July 1975.
508 *Prociphilus* (*Stagona*) *pini* (Burmeister, 1835) (309): 27 October 1971; 26 October 1972; 24 June, 13 September, 2 October 1973; 24 June 1974; 25 October 1975; 25 September 1976.
30 *Protrama ranunculi* (del Guercio, 1909) (236): 5 July, 4 August, 22 September 1971; 17 July, 22 July, 6 October 1972; 15 August 1973; 29 August 1974.
102 *Pterocomma pilosum* Buckton, 1879 (198): 5 June, 28 June 1973.
103 *P. populeum* (Kaltenbach, 1843) (199): 24 June, 15 July, 17 July 1972; 10 July 1975; 14 August 1976.
401 *Rhodobium porosum* (Sanderson, 1900) (51a): 25 July 1971; 24 July 1974; 1–18 July 1976.
739 *Rhopalosiphum rufulum* Richards, 1960 (191b) (see Heie 1972: 95): 8 June 1973; 9 August 1974.
121 *Schizaphis* (*Paraschizaphis*) *scirpi* (Passerini, 1874) (194): 2 August 1971; 6 July 1974; 5 July 1975; 23 June–23 July 1976.
52 *Sipha* (*Rungsia*) *elegans* del Guercio, 1095 (254), syn. *S. kurdjumovi* Mordvilko, 1921: 3 August 1971; 14 August 1972; 8 August 1974; 20 August 1976.
92 *Therioaphis luteola* (Börner, 1949) (283): 11 July 1973; 8 August 1974; 3 August 1975; 24 June 1976.
731 *T. riehmi* (Börner, 1949) (284a): 8–31 July 1971; 19 June, 12 July, 18 July 1973; 11 July 1975; 1 July 1976.
71 *Tinocallis platani* (Kaltenbach, 1843) (278a): 8 July 1975.
325 *Tubaphis ranunculina* (Walker, 1852) (91): 5 July, 13 September 1972; 2 July 1975; 17 July 1976.
69 *Tuberculatus querceus* (Kaltenbach, 1843) (278): 3 July, 28 July 1971; 25 June 1973.
439 *Uroleucon tussilaginis* (Walker, 1850) (18): 8 July 1971; 21–30 June 1973; 7 August 1974; 10 July–6 August 1975; 16 July 1976.

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