

THE APHIDS (HOMOPTERA:APHIDIDAE) OF BRITISH COLUMBIA

15. FURTHER ADDITIONS

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ABSTRACT

Six species of aphids and new host records are added to the taxonomic list of the aphids of British Columbia.

INTRODUCTION

Eleven previous lists of the aphids of British Columbia (Forbes, Frazer and MacCarthy 1973; Forbes, Frazer and Chan 1974; Forbes and Chan 1976, 1978, 1980, 1981, 1983, 1984, 1985, 1986; Forbes, Chan and Foottit 1982) recorded 380 species of aphids collected from 836 hosts or in traps and comprises 1586 aphid-host plant associations. The present list adds 6 aphid species (indicated with an asterisk in the list) and 75 aphid-host plant associations to the previous lists. Twenty-nine of the new aphid-host plant associations are plant species not re-

corded before. The additions bring the number of known aphid species in British Columbia to 386. Aphids have now been collected from 865 different host plants and the total number of aphid-host plant associations is 1661.

The aphid names are in accordance with Eastop and Hille Ris Lambers (1976) and listed alphabetically by species. Five new collection sites are tabulated in Table 1. The location of each collection site can be determined from Table 1 or from the tables of localities in the previous papers. The reference points are the same as those shown on the map which accompanies the basic list.

TABLE 1. Collection sites of aphids, with airline distances from reference points.

Locality	Reference Point	Distance		
		Dir	km	mi
Alexandria	Williams Lake	NW	64	40
Eisenhower Junction	Kelowna	NE	314	196
Garibaldi Provincial Park	Vancouver	NE	68	42
Rosedale	Vancouver	SE	82	51
Thetis Island	Vancouver	SW	58	36

LIST OF SPECIES

ABIETINUM (Walker), ELATOBIUM

Picea engelmannii: Vancouver (UBC), Mar15/85.

ADIANTI (Oestlund), SITOBION

Athyrium filix-femina: Vancouver (UBC) Jul14/83.

ALBIFRONS Essig, MACROSIPHUM

Lupinus sp.: Vancouver (UBC), Sep2/83.

ASCALONICUS Doncaster, MYZUS

Cerastium fontanum ssp. *triviale* Vancouver, Dec30/59.

Lactuca sativa: Cloverdale, May16/85.

Potentilla 'Gibson's Scarlet': Vancouver (UBC), Nov14/85.

Rumex crispus: Lulu Island, Mar 24/60.

Senecio cruentus: Vancouver, Apr9/57.

Viola septentrionalis: Vancouver (UBC), Apr16/83.

AVELLANAE (Schrank), CORYLOBIUM

Corylus sp.: Vancouver, Jul28/83.

*AZALEAE (Mason), ILLINOIA

Vaccinium macrocarpon: Vancouver (UBC), Aug29/83.

BERBERIDIS (Kaltenbach), LIOSOMAPHIS

Berberis buxifolia: Vancouver (UBC), Oct1/85.

*BREVISCRIPITUM (Palmer) UROLEUCON

Aster sp.: Eisenhower Junction, Jul26/67.

CALIFORNICUM (Clarke), MACROSIPHUM

Salix triandra: Vancouver (UBC), May23/86.

CAPILANOENSE Robinson, AULACORTHUM

Rubus spectabilis: Vancouver (UBC), May28/86.

CARAGANAE (Cholodkovsky),

ACYRTHOSIPHON

Caragana arborescens: Alexandria, Jul4/48.

CARDUI (Linnaeus), BRACHYCAUDUS

Cirsium vulgare: Thetis Island, Jul1/85.

CASTILLEIAE Sampson, KAKIMIA

Castillejo sp.: Eisenhower Junction, Jul26//67.

CIRCUMFLEXUM (Buckton), AULACORTHUM

Asparagus densiflorus 'Sprengeri': Vancouver (CDA), Jun21/85.

Berberidopsis corallina: Vancouver (UBC), Oct1/85.

Crinodendron patagua: Vancouver (UBC), Aug23/85.

Linnaea borealis: Vancouver (CDA), Mar26/86.

CIRSII (Linnaeus), UROLEUCON

Cirsium arvense: Pender Island, Jul11/85; Richmond, Aug10/65.

Cirsium brevistylum: Pender Island, Jul9/85.

***COWENI Palmer, APHIS**

Veratrum viride ssp. *eschscholtzii*: Garibaldi Provincial Park, Aug9/59.

CYNOSBATI (Oestlund), KAKIMIA

Tellima grandiflora: Vancouver (UBC), Mar5/77.

DAPHNIDIS Börner, MACROSIPHUM

Daphne laureola: Vancouver (UBC), May 19/76, Jun28/76.

DIRRHODUM (Walker), METOPOLOPHIUM

Rosa rugosa 'Hansa': Vancouver (UBC), Oct18/85.

ELAEAGNI (del Guercio) CAPITOPHORUS

Phaseolus vulgaris: Rosedale, Jun16/58.

EQUISETI Holman, SITOBION

Equisetum arvense: Vancouver, Aug15/85.

EUPHORBIAE (Thomas), MACROSIPHUM

Apocynum androsaemifolium: Vancouver (UBC), Jul13/83.

Capsicum frutescens: Vancouver, May13/59.

Catalpa speciosa: Vancouver, Jun20/83.

Centranthus ruber: Vancouver (UBC), Jul15/83.

Crataegus monogyna 'Alba': Vancouver, May30/83.

Deutzia gracilis: Vancouver (UBC), Jul11/83.

Fumaria officinalis: Vancouver (UBC), Jun17/83.

Hypoestes phyllostachya: Vancouver (CDA), May15/86.

Kolkwitzia amabilis: Vancouver (UBC), Jun24/83.

Lantana camara: Vancouver (CDA), Apr25/86.

Potentilla fruticosa: Vancouver (UBC), Jul19/83.

Rosa gymnocarpa: Vancouver (UBC), Jul12/84.

Rudbeckia hirta: Vancouver (UBC), Jul15/83.

Taraxacum officinale: Vancouver, Mar11/83.

Vaccinium corymbosum: Vancouver (UBC), Jul12/83.

Valeriana officinalis: Vancouver (UBC), Jun23/83.

Verbena x hybrida 'Springtime': Vancouver (UBC), Aug26/83.

Yucca sp.: Vancouver, Aug24/83; Vancouver (UBC), Jul26/83.

FABAE Scopoli, APHIS

Cirsium arvense: Abbotsford, Jul30/51; Agassiz, Jun30/59.

Phaseolus vulgaris: Abbotsford, Jul13/59;

Brentwood, Jul4/59; Cordova Bay, Aug6/53.

Senecio sp.: Vancouver, Jul7/56.

Vicia faba: Saanich, Jul4/59.

FIMBRIATA Richards, FIMBRIAPHIS

Rosa nutkana: Vancouver (UBC), Jul11/83.

FOENICULI (Passerini), HYADAPHIS

Coriandrum sativum 'Dark Green Italian': Vancouver (CDA), Apr15/86.

GENTNERI (Mason), FIMBRIAPHIS

Crataegus x lavallei: Vancouver (UBC), Jul19/84.

Crataegus monogyna 'Alba': Vancouver, Jun4/83.

Sorbus americana: Vancouver, Jun28/59.

HELICHRYSI (Kaltenbach), BRACHYCAUDUS

Aster sp.: Vancouver, Jun1/58.

Cirsium vulgare: Thetis Island, Jul1/85.

HOLODISCI Robinson, APHIS

Holodiscus discolor: Vancouver, Jun24/85; Vancouver (UBC), Jun11/75.

HUMULI (Schrank), PHORODON

Photinia x fraseri: Vancouver, May9/86.

LACTUCAE (Linnaeus), HYPEROMYZUS

Sonchus asper: Vancouver, Jul16/56, Sep5/56.

Sonchus oleraceus: Vancouver, Jul5/56.

LACTUCAE (Passerini), ACYRTHOSIPHON

Lactuca serriola: Vancouver, Sep30/85.

***MACGILLIVRAYAE (Hille Ris Lambers), ILLINOIA**

Chaenomeles japonica: Vancouver, Jul21/76.

MANITOBENSE (Robinson), SITOBION

Cornus sericea: Vancouver (UBC), May28/86.

MILLEFOLII (de Geer), MACROSIPHONIELLA

Achillea 'Coronation Gold': Vancouver (UBC), Jun21/85.

OCHROCENTRI (Cockerell), BIPERSONA

Cirsium sp.: Kamloops, Jul4/53.

ORNATUS Laing, MYZUS

Chaenomeles speciosa: Vancouver, May3/58.

Cirsium arvense: Vancouver (UBC), May23/86.

Crinodendron patagua: Vancouver (UBC), Aug23/85.

Taraxacum officinale: Vancouver, May12/58.

OSMARONIAE (Wilson), MACROSIPHUM

Oemleria cerasiformis: Vancouver (UBC), Apr26/83.

PARVIFOLII Richards, MACROSIPHUM

Vaccinium parvifolium: Vancouver (UBC), Apr5/83.

***PAUCOSENSORIATUM (Hille Ris Lambers), UROLEUCON**

Asper: Chilliwack, May 26/58; Kamloops, May2/57, Jul24/57.

PERSICAE (Sulzer), MYZUS

Aster sp.: Creston, Apr22/59.

Phaseolus vulgaris: Rosedale, Jun16/58.

PISUM (Harris), ACYRTHOSIPHON

Phaseolus vulgaris: Cordova Bay, Aug6/53.

Vicia faba: Saanich, Jul4/59.

POMI de Geer, APHIS

Pyrus communis: Vancouver, May23/58.

PYRIFOLIAE MacDougall, MACROSIPHON

Capsella bursa-pastoris: Vancouver (CDA), Sep2/83.

Rosa 'Beauty Secret': Vancouver (CDA), Sep2/83.

Sorbus aucuparia: Vancouver, Mar27/83, Apr18/83,

May 15/83, May20/86, Jun23/83.

RHAMNI (Clarke), SITOBION

Rhamnus purshiana: Ladner, May25/66.

RIBISNIGRI (Mosley), NASONOVIA

Cichorium intybus: Pender Island, Jul11/85.

Lapsana communis: Vancouver, Jul24/85.

ROSAE (Linnaeus), MACROSIPHUM

Rosa centifolia 'Muscosa': Vancouver (UBC), Aug7/85.

Rosa eglanteria: Pender Island, Jul9/85.

Rosa 'Nozomi': Vancouver (UBC), Oct4/86.

ROSARUM (Kaltenbach), MYZAPHIS

Rosa 'Agnes': Vancouver (UBC), Apr19/85.

SCAMMELLI (Mason), ERICAPHIS

Arctostaphylos uva-ursi: Vancouver (UBC), Jul11/78.

Vaccinium corymbosum: Abbotsford, Jul28/83.

SOLANI (Kaltenbach), AULACORTHUM

Catalpa sp.: Vancouver, Jun19/59.

Chaenomeles speciosa: Vancouver, May3/58.

Potentilla pennsylvanica: Vancouver (UBC), May11/83.

Primula sp.: Vancouver, May23/59.

Pyrus communis: Vancouver, May23/58.

Senecio cruentus: Vancouver, Apr9/57.

Sinningia speciosa: Vancouver, Jul3/58.

SONCHI (Linnaeus), UROLEUCON

Sonchus arvensis: Sea Island, Jul15/59.

Sonchus asper: Vancouver, Jul1/59.

SPIRAECOLA (Patch), ILLINOIA

Spiraea thunbergii: Vancouver (UBC), Jun13/85.

STAPHYLEAE (Koch), RHOPALOSIPHONINUS

Iris sp.: Vancouver (UBC), Apr18/86.

Penstemon 'Evelyn': Vancouver (UBC), Apr18/86.

Platycodon grandiflorus 'Apoyama': Vancouver (UBC), Apr18/86.

STELLARIAE Theobald, MACROSIPHUM

Capsella bursa-pastoris: Vancouver (CDA), May20/86.

Catharanthus roseus: Vancouver (CDA), May20/86.

Dianthus sp.: Chilliwack, Aug13/85.

TARAXACI (Kaltenbach) UROLEUCON

Taraxacum officinale: Vancouver, Jun17/59.

***THOMASI Hille Ris Lambers, CHAETOSIPHON**

Rosa rugosa 'Hansa': Vancouver (UBC), May1/85, Oct18/85.

TILIAE (Linnaeus), EUCALLIPTERUS

Tilia petiolaris: Vancouver (UBC), Aug22/85.

VARIABILIS Richards, BOERNERINA

Alnus viridis ssp. *sinuata*: Vancouver (UBC), Jun14/85.

WAKIBAE (Hottes), FIMBRIAPHIS

Rosa rugosa 'Alba': Vancouver (UBC), Jun23/83.

Rosa woodsii ssp. *woodsii*: Vancouver (UBC), Sep2/83.

*Aphid species not in the previous lists.

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A RECORD OF THE SURINAM COCKROACH IN VANCOUVER

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An adult female cockroach was brought to Simon Fraser University for identification in April 1986. It had been collected in an office on one of the upper floors of a highrise block in downtown Vancouver. According to Mr. Rex Case, the district manager of the pest control company that serviced this block and a nearby ground-level shopping centre, these cockroaches had been sufficiently numerous to cause complaint. In the office, the largest population seemed to be in a room containing a photocopier near which there was a neglected planter. We later searched the office but found only fragments of cockroaches. The photocopying room did not contain any food or drink and did not appear to be a suitable habitat for cockroaches.

The specimen was identified as *Pycnoscelus surinamensis* (L.), an Indomalaysian species that in its introduced North American and European forms is parthenogenetic. Another unusual characteristic of this species is that the egg pod is withdrawn into a brood pouch until hatching, making them effectively viviparous. They were evidently first identified in Canada in 1938 as a serious pest girdling the stems of roses in a large greenhouse in Grimsby, Ont. (Anon. 1938), and there is a casual remark by Mallis (1982) that it was seen in large numbers in a bird house at the Toronto zoo.

The Surinam cockroach is about 2cm long, obviously larger than the German cockroach (1 to 1.5cm) and

smaller than the American and Australian cockroaches (3 to 4cm), all of which are more commonly found in Vancouver. In the specimens we examined, the pronotum is uniformly dark apart from a narrow anterior yellow line. The posterior margin of the pronotum is sinuate. The tibiae and tarsi are relatively short particularly on the mesothoracic leg and, compared with the commoner species, the tarsal segments are extremely narrow. The tibiae are broad and armed with strong, presumably fossorial, spines. These key characters are shown in Fig. 1. The wings are pale brown and well developed, normally covering the rather stubby cerci. We assume the adults can fly but have neither observed this nor seen any mention of it in the literature.

We believe that these insects have been introduced on indoor plants imported from the United States. Even if the plants are brought in without soil it is very likely that a single small nymph could avoid detection in an appressed axil or loose fibrous material around a stem. A search was made in the warehouse of one of the companies that supplied plants to the shopping centre where the cockroaches were found. None was seen or caught with sticky cockroach traps set around the plants.

We have seen no references to this species as an urban pest but in view of the proliferation of environmental planting in offices and shopping malls entomologists should be aware that it might well become one.