

THE APHIDS (HOMOPTERA:APHIDIDAE) OF BRITISH COLUMBIA 12. 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

Eight 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; Forbes, Chan and Foottit, 1982) record 351 species of aphids collected from 743 hosts or in traps and comprise 1376 aphid-host plant associations. The present list adds 6 aphid species (indicated with an asterisk in the list) and 107 aphid-host plant associations to the previous lists. Forty-two of the new aphid-host plant associations are plant species not in the previous

lists. The additions bring the number of known aphid species in British Columbia to 357. Aphids have now been collected from 785 different host plants and the total number of aphid-host plant associations is 1483.

The names of aphids are in conformity with Eastop and Hille Ris Lambers (1976) and are arranged alphabetically by species. Four new collection sites are tabulated in Table 1. The locations 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	Dir	Distance km	Distance mi
King Edward Lake	Kelowna	NE	32	20
Sayward	Victoria	NW	293	183
Sooke	Victoria	SW	30	19
Woodcock	Prince Rupert	NE	161	100

LIST OF SPECIES

ABIETINUS Koch, **MINDARUS**

Pinus contorta var. *contorta*: Terrace, Jun 6/61, (Evans 1983).
Pinus contorta var. *latifolia*: Terrace, Jun 6/61, (Evans 1983).

AGATHONICA Hottes, **AMPHOROPHORA**

Rubus ideaus spp. *melanolasius*: King Edward Lake, Jun 6/84.

ASCALONICUS Doncaster, **MYZUS**

Allium cepa: Burnaby, Apr 25/84.
Arnica latifolia var. *gracilis*: Vancouver (UBC), May 3/84.
Claytonia sibirica var. *sibirica*: Vancouver (UBC), Mar 5/84.
Taraxacum officinale: Vancouver (UBC), Apr 4/77.

***AVELLANAEC** (Sehrank), **CORYLOBIUM**

Corylus cornuta var. *californica*: Vancouver, Apr 25/84, Jul 28/83, Sep 28/83, Oct 11/83.
Corylus maxima 'Purpurea': Vancouver (UBC), May 15/84.

AVENAE (Fabricius), **SITOBIUM**

Arrhenatherum elatius 'Variegatum': Vancouver, Jan 9/84.

BRAGGII (Gillette), **CINARA**

Pinus contorta var. *latifolia*: Woodcock, Jun 13/59, (Evans 1983).

BRASSICAE (Linnaeus), **BREVICORYNE**

Brassica juncea 'Florida Broadleaf': Vancouver (CDA), Jun 10/84.

Brasica oleracea acephala group: Vancouver (CDA), May 5/84.

BREVISPINOSA (Gillette & Palmer), **CINARA**

Pinus contorta var. *contorta*: Sayward, May 29/72, (Evans 1983).

Pinus contorta var. *latifolia*: Sayward, May 29/72, (Evans 1983).

CALIFORNICA (Davidson), **THELAXES**

Quercus garryana: Vancouver (UBC), Apr 24/84, May 8/84.

Quercus prinus: Vancouver (UBC), Apr 24/84, May 8/84.

CALIFORNICA Hille Ris Lambers, **NEARCTAPHIS**

Sorbus aucuparia: Vancouver, Jun 6/84, Jun 13/84.

*Aphid species not in the previous list.

- CAPILANOENSE** Robinson, AULACORTHUM
Rubus spectabilis: Vancouver (UBC), Jun 6/84.
- CARDUI** (Linnaeus), BRACHYCAUDUS
Cirsium vulgare: 108 Mile House, Jul 27/83, Jul 28/83.
- CASTILLEIAE** Sampson, KAKIMIA
Castilleja miniata: 108 Mile House, Jul 27/83.
- CIRCUMFLEXUM** (Buckton), AULACORTHUM
Citrus sp.: Vancouver, Jan 27/84.
- Cordyline terminalis 'Hybrida'*: Vancouver (CDA), Apr 19/84.
- Crossandra infundibuliformis*: Vancouver (CDA), Apr 19/84.
- Dieffenbachia maculata*: Vancouver (CDA), May 13/84.
- Gardenia jasminoides*: Vancouver (CDA), Jan 21/83.
- Hedera helix*: Vancouver (CDA), Apr 19/84.
- Matteuccia struthiopteris*: Vancouver (UBC), May 2/84, May 14/84.
- Pellaea glabella* var. *simplex*: Vancouver (CDA), May 24/84.
- Vaccinium macrocarpon 'McFarlin'*: Vancouver (UBC), Nov 7/83.
- Verbesina encelioides*: Vancouver (CDA), Jun 8/84.
- * **CORALLORHIZAE** (Cockerell), MACROSIPHUM
Corallorrhiza striata: Naramata, Jul 24/83.
- CORYLI** (Goeze), MYZOCALLIS
Corylus cornuta var. *californica*: Vancouver, Apr 25/84, Jul 28/83, Sep 28/83, Oct 11/83.
- Corylus maxima 'Purpurea'*: Vancouver (UBC), May 15/84.
- CURVISPINOSUS** Hottes Essig & Knowlton,
SCHIZOLACHNUS
Pinus ponderosa: Osoyoos, May 31/73, (Evans 1983).
- DAPHNIDIS** Borner, MACROSIPHUM
Daphne laureola: Vancouver (UBC), Mar 5/84, May 8/84.
- DIRHODUM** (Walker), METOPOLOPHIUM
Arrhenatherum elatius 'Variegatum': Vancouver, Jun 9/84.
- DORSATUM** (Richards), SITOBION
Gaultheria shallon: Vancouver (UBC), May 8/84, May 10/84.
- EQUISETI** Holman, SITOBION
Equisetum arvense: Vancouver, Jun 9/84.
- * **EQUISETICOLA** Ossiannilsson, APHIS
Equisetum arvense: Vancouver, Jun 9/84.
- ERIOPHORI** (Walker), CERURAPHIS
Carex geyeri: Vancouver (UBC), Jul 3/79.
- EUPHORIAE** (Thomas), MACROSIPHUM
Chenopodium capitatum: Vancouver (CDA), Jun 6/84.
- Chenopodium quinoa*: Vancouver (CDA), Jun 6/84.
- Datura stramonium*: Vancouver (CDA), Jun 6/84.

- Euphorbia lathyris*: Vancouver (UBC), Aug 18/83.
- Petunia 'Coral Satin'*: Vancouver (CDA), Jun 6/84.
- Plantago lanceolata*: Vancouver (CDA), May 5/84.
- Plantago major*: Vancouver (CDA), May 5/84.
- Schizostylis coccinea*: Vancouver (CDA), Jun 10/84.
- FABAE** Scopoli, APHIS
Asparagus officinalis: Vancouver (CDA) May 5/84.
- Chenopodium capitatum*: Vancouver (CDA), Jun 6/84.
- Chenopodium quinoa*: Vancouver (CDA), Jun 6/84.
- Catharanthus roseus*: Vancouver (CDA), Jun 15/84.
- FERRISI** (Swain), CINARA
Pinus contorta var. *contorta*: Langford, May 20/54, (Evans 1983).
- Pinus monticola*: Langford, May 20/54, (Evans 1983).
- FIMBRIATA** Richards, FIMBRIAPHIS
Fragaria x ananassa 'Fort Laramie': Vancouver (UBC), May 3/84.
- Fragaria x ananassa 'Hecker'*: Vancouver (UBC), May 3/84, Aug 31/83.
- Fragaria x ananassa 'Olympus'*: Vancouver (UBC), Oct 25/83.
- Fragaria x ananassa 'Ozark Beauty'*: Vancouver (UBC), Nov. 28/83.
- Fragaria x ananassa 'Quinault'*: Vancouver (UBC), Nov 4/83.
- Fragaria x ananassa 'Shuksan'*: Vancouver (UBC), Aug 31/83.
- Fragaria x ananassa 'Sweetheart'*: Vancouver (UBC), Aug 31/83, Nov 4/83.
- Fragaria x ananassa 'Totem'*: Vancouver (UBC), Nov 4/83.
- Fragaria vesca 'Alpine Alexandria'*: Vancouver (UBC), Nov 4/83.
- FOENICULI** (Passerini), HYADAPHIS
Apium graveolens: Vancouver (CDA), Jun 19/84.
- Lonicera 'Dropmore Scarlet'*: Vancouver (UBC), May 28/84, Jun 7/84, Jun 15/84.
- FRAGAEFOLII** (Cockerell), CHAETOSIPHON
Fragaria x ananassa 'Fort Laramie': Vancouver (UBC), May 3/84.
- Fragaria x ananassa 'Quinault'*: Vancouver (UBC), Nov 4/83.
- Fragaria x ananassa 'Sweetheart'*: Vancouver (UBC), Nov 4/83.
- Fragaria vesca 'Alpine Alexandria'*: Vancouver (UBC), Nov 4/83.
- Fragaria vesca 'Yellow Alpine'*: Vancouver (UBC), Nov 4/83.
- FRAGARIAE** (Walker), SITOBION
Fragaria x ananassa 'Fort Laramie': Vancouver (UBC), May 3/84.
- Fragaria x ananassa 'Olympus'*: Vancouver (UBC), Oct 25/83.

Fragaria x ananassa 'Ozark Beauty': Vancouver (UBC), Nov 28/83.

Fragaria ananassa 'Quinalt': Vancouver (UBC), Nov 4/83.

Fragaria x ananassa 'Sweetheart': Vancouver (UBC), Nov 4/83.

Fragaria x ananassa 'Totem': Vancouver (UBC), Nov 4/83.

Fragaria vesca 'Alpine Alexandria': Vancouver (UBC), Nov 4/83.

GENTNERI (Mason), FIMBRIAPHIS

Amelanchier laevis: Vancouver (UBC), Apr 10/84, Apr 16/84, May 8/84.

Crataegus monogyna 'Alba': Vancouver, May 28/84, Jul 4/83.

Mespilus germanica: Vancouver (UBC), Apr 3/84, Apr 18/84, May 8/84.

GILLETTEI Davidson EUCERAPHIS

Pinus ponderosa: Nelson, (Evans 1983).

GILLETTEI Hottes, ESSIGELLA

Pinus ponderosa: Kamloops, (Evans 1983).

HELICHRYSI (Kaltenbach), BRACHYCAUDUS

Antennaria neglecta var. *attenuata*: Vancouver (UBC), May 28/84.

Antennaria umbrinella: Vancouver (UBC), May 28/84.

Erigeron speciosus var. *macranthus*: Vancouver (UBC), May 16/84.

Geranium viscosissimum var. *viscosissimum*: Vancouver (UBC), May 16/84.

Grindelia nana: Vancouver (UBC), May 16/84, May 28/84, Jun 1/84.

Heterotheca villosa var. *villosa*: Vancouver (UBC), Jun 1/84.

Hieracium scouleri var. *scouleri*: Vancouver (UBC), May 16/84.

Leontopodium alpinum: Vancouver (UBC), May 28/84.

Photinia x fraseri: Vancouver, Jun 9/84.

Salix triandra: Vancouver (UBC), May 28/84.

Senecio cineraria: Vancouver (UBC), May 23/84.

Trifolium pratense: Vancouver (UBC), May 23/84.

*HOLODISCI Robinson, APHIS

Holodiscus discolor: Vancouver (UBC), Apr 11/83, May 15/79, May 18/76, May 22/81, May 26/81, (Robinson 1984).

HUMBOLDTI (Essig), UTAMPHOROPHORA

Physocarpus malvaceus: Vancouver (UBC), Apr 3/84, Apr 16/84, May 2/84.

MACROSIPHUM (Wilson), ACYRTHOSIPHON

Amelanchier laevis: Vancouver (UBC), May 8/84.

MANITOBIENSE (Robinson), SITOBION

Cornus alba 'Sibirica': Vancouver (UBC), Apr 24/84.

MEDISPINOSA (Gillette & Palmer), CINARA

Pinus albicaulis: Summerland, May 24/72, (Evans 1983).

Pinus contorta var. *contorta*: Summerland, May 24/72, (Evans 1983).

Pinus contorta var. *latifolia*: Summerland, May 24/72, (Evans 1983).

Pinus ponderosa: Summerland, May 24/72, (Evans 1983).

MURRAYANAE (Gillette & Palmer), CINARA

Pinus contorta var. *contorta*: Sooke, May 20/75, (Evans 1983).

Pinus contorta var. *latifolia*: Sooke, May 20/75, (Evans 1983).

Pinus monticola: Sooke, May 20/75, (Evans 1983).

ORNATUS Laing, MYZUS

Coronilla valentina ssp. *glaucia*: Vancouver (UBC), Mar 22/83.

Cymbidium sp.: Vancouver (CDA), Mar 8/84.

Fragaria x ananassa 'Sweetheart': Vancouver (UBC), Nov 4/83.

Fragaria x ananassa 'Totem': Vancouver (UBC), Nov 4/83.

Fragaria vesca 'Alpine Alexandria': Vancouver (UBC), Nov 4/83.

Fragaria vesca 'Yellow Alpine': Vancouver (UBC), Nov 4/83.

Sorbus aucuparia: Vancouver (UBC), May 8/84.

Taraxacum officinale: Vancouver (UBC), Apr 4/77.

Trifolium pratense: Vancouver (UBC), May 28/84.

PARVIFOLII Richards, MACROSIPHUM

Pieris japonica: Vancouver (UBC), Apr 11/83, May 10/84.

Vaccinium parvifolium: Vancouver (UBC), Mar 23/84, May 2/84, May 9/84.

PERSICAE (Sulzer), MYZUS

Claytonia sibirica var. *sibirica*: Vancouver (CDA) May 16/84.

PINAE (Mordvilko), CINARA

Pinus nigra: Vancouver (UBC), Apr 10/84.

*PINIRADIATAE (Davidson), SCHIZOLACHNUS

Pinus ponderosa: Cascade, Jun 8/72, (Evans 1983).

POMI de Geer, APHIS

Crataegus monogyna 'Alba': Vancouver, May 28/84, Jul 4/83.

Pinus contorta var. *contorta*: Victoria, Jul 22/75, (Evans 1983).

PONDEROSAE (Williams), CINARA

Pinus ponderosa: Rutland, Jun 19/75, (Evans 1983).

RHAMNI (Clarke), SITOBION

Rhamnus purshiana: Vancouver (UBC), Mar 26/84, Apr 10/84, May 3/84.

RIBISNIGRI (Mosley), NASONOVA

Lactuca sativa: Burnaby, May 28/84, May 30/84; Cloverdale, May 28/84, May 30/84; Vancouver, Jun 4/84.

ROBINIAE (Gillette), APPENDISETA

Robinia pseudoacacia: Vancouver, Jun 12/84.
Sophora japonica: Vancouver, Jun 12/84.

ROSAE (Linnaeus), MACROSIPHUM

Rosa rugosa 'Hansa': Vancouver (UBC), Jun 19/84.
Rosa woodsii ssp. *woodsii*: Vancouver (UBC), May 3/84.

ROSARUM (Kaltenbach), MYZAPHIS

Potentilla fruticosa 'Red Ace': Vancouver (UBC), May 23/84.

ROSSI Hottes & Frison, AMPHOROPHORA

Geum macrophyllum: Vancouver (UBC), May 29/84.

SCHLINGERI Hille Ris Lambers,**GLABROMYZUS**

Luzula nivea: Vancouver (UBC), May 24/84.

***SERRULATUS Haliday, ATHEROIDES**

In flight: 108 Mile House, Jul 27/83.

SIPHUNCULATA Richards, PLACOAPHIS

Rosa nutkana var. *nutkana*: Vancouver (UBC), Mar 23/84, Apr 5/84.
Rosa rugosa 'Alba': Vancouver (UBC), Mar 27/84, Mar 29/83, Apr 6/84, May 8/84, May 15/84.
Rosa rugosa 'Hansa': Vancouver (UBC), Mar 27/84, Apr 19/84, May 23/84.

SOLANI (Kaltenbach), AULACORTHUM

Aster foliaceus var. *cusickii*: Vancouver (UBC), May 3/84.

Lactuca sativa: Cloverdale, May 29/84.

SPIRAECOLA (Patch), ILLINOIA

Spiraea thunbergii: Vancouver (UBC), May 8/84.

STAPHYLEAE (Koch), RHOPALOSIPHONINUS

Brassica juncea 'Florida Broadleaf': Vancouver (CDA), Jun 6/84.

Capsella bursa-pastoris: Vancouver (CDA), Apr 16/84.

Catharanthus roseus: Vancouver (CDA), Jun 13/84.

Datura stramonium: Vancouver (CDA), Jun 13/84.

Gomphrena globosa: Vancouver (CDA), Jun 13/84.

Vinca minor: Vancouver, Apr 15/84.

STELLARIAE Theobald, MACROSIPHUM

Asparagus officinalis: Vancouver (CDA), May 5/84.

Daucus carota: Vancouver (CDA), Jun 13/84.

TILIAE (Linnaeus), EUCALLIPTERUS

Tilia americana: Vancouver (UBC), May 8/84.

VARIABILIS Richards, BOERNERINA

Alnus viridis ssp. *sinuata*: Vancouver (UBC), Jun 7/84.

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